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Motor, Servo and Feedback Cables

LÜTZE supplies flexible and highly flexing motor connection and energy supply cables as well as system-specific servo and feedback cables and low-capacitance cables for efficient power transfer.

LÜTZE servo cables are suitable for all types of drives, however they are particularly effective for motors with frequency convertors. The high dielectric strength of the insulation material and the low dielectric coefficient are advantages offered by the LÜTZE servo cables on the electrical side. Mechanically the servo cables score through outstanding glide properties, strength and temperature-neutral flexibility. This is ideal for use in C-tracks and in harsh

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×10 1kV SW

Part No. <u>111126</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- As motor supply or grounding cable
- · Compatible with all major drag chain brands
- · Compliant with NFPA 79, Article 12.9
- Through full PUR jacket and TPE conductor insulation optimally suited, extremely harsh operating conditions, aggressive coolants and lubricants

Properties

- Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×10
Number of conductors 1

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

Outer \emptyset 8.4 mm Outer \emptyset 0.331 inch

Surface adhesion-free, matte

 Weight
 13.8 kg/100 m

 Weight
 93 Lbs/Mft

 Cu-Index
 9.3 kg/100 m

 Cu-Index
 62 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $4 \times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×10

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PVC feedback cables · shielded

LUTZE SILFLEX® (C) PVC FEEDBACK Feedback cable for Siemens DRIVE-CLIQ 6FX5008 standard system









Identification

Type SI (C) PVC FB (2×2×AWG26+1×2×AWG22)

Part No. <u>104341</u>

Product version

Datasheet version 00

Use/Application/Properties

Application • Digital feedback cable compatible with Siemens DRIVE-CLIQ standard

stystem

· In dry and damp rooms

· For flexible applications without compulsory guide

Properties • High protection against electromagnetic interferences (EMI)

PVC Flame-retardant, self-extinguishing

· Largely resistant to oils, greases, acids and bases

Silicone free

Construction

Description SILFLEX® (C) PVC FEEDBACK Number of conductors/cross-section (2×2×AWG26+1×2×AWG22)

Number of conductors 6

Cross-section, metric 0.14 mm²

Jacket material Special PVC

Jacket color green similar to RAL 6018

Outer \emptyset 6.8 mm 0.268 inch

Surface adhesion-free, matte

 Weight
 8.5 kg/100 m

 Weight
 57 Lbs/Mft

 Cu-Index
 4.2 kg/100 m

 Cu-Index
 28 Lbs/Mft

PVC feedback cables · shielded

Construction Element 1

Element construction 2×2×AWG26 Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking green • yellow • blue • pink

Conductor insulation Polyolefin

Stranding conductors stranded in pairs

Construction Element 2

Element construction 1×2×AWG22 Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking red • black

Stranding conductors stranded in pairs

Overall construction

Overall stranding elements stranded together

Overall shield Foil shield

Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant acid-resistant alkali-resistant

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving $-5 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $15 \times D$ Minimum bending radius fixed $7.5 \times D$

Technical Data Element 1

PVC feedback cables · shielded

Technical Data Element 2

Element construction 1×2×AWG22
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire approx.76 pF/m
Operating capacitance wire-shield approx.137 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2502

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* SIEMENS and DRIVE-CLiQ are registered trademarks

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Bosch-Rexroth and other systems For highest requirements in drive technology















Identification

Type SU+ (C) PUR FB (9×0,5) 300V

Part No. <u>110940</u>
INK Description* INK-0208*

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (9×0.5)

Number of conductors 9

Cross-section, metric 0.5 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 8.8 mm Outer \emptyset 0.347 inch

Surface adhesion-free, matte

 Weight
 12.5 kg/100 m

 Weight
 84 Lbs/Mft

 Cu-Index
 7.5 kg/100 m

 Cu-Index
 50 Lbs/Mft

Construction Element 1

Element construction (9×0.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6 DIN 47100

Conductor marking standard

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

PUR feedback cables · C-track compatible · shielded

Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction (9×0.5)

Insulation resistance at 20 °C \geq 200 MΩ×km Operating capacitance wire-wire approx.53 pF/m Operating capacitance wire-shield approx.95 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 20233

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Halogen free according to DIN EN 60754-1

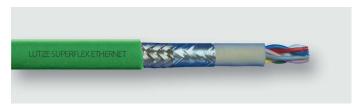
IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology















Identification

SU+(C) PUR FB (2×2×AWG26+1×2×AWG22) 30V Type

Part No. 104310 SIEMENS designation* 2DC00

Product version

00 Datasheet version

Use/Application/Properties

Application

- · Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

(2×2×AWG26+1×2×AWG22) Number of conductors/cross-section

Number of conductors 6

Cross-section, metric 0.15 mm²

PUR feedback cables · C-track compatible · shielded

Cross-section AWG AWG 22
Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 6.8 mm Outer \emptyset 0.268 inch

Surface adhesion-free, matte

 Weight
 7.3 kg/100 m

 Weight
 49 Lbs/Mft

 Cu-Index
 3.4 kg/100 m

 Cu-Index
 22.78 Lbs/Mft

Construction Element 1

Element construction 2×2×AWG26
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking pink • blue • yellow • green

Conductor insulation Polyolefin

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 1×2×AWG22
Conductor Cu-wire tin-plated
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking red • black
Conductor insulation Polyolefin

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall wrapping Non-woven material

Overall shield aluminium-laminated film shield

Braid shield

PUR feedback cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 2×2×AWG26
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire approx.52 pF/m
Operating capacitance wire-shield approx.94 pF/m

Technical Data Element 2

Element construction 1×2×AWG22
Operating capacitance wire-wire approx.85 pF/m
Operating capacitance wire-shield approx.153 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

Note

PUR feedback cables · C-track compatible · shielded

General			

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CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Siemens Drive Cliq and other systems For highest requirements in drive technology















Identification			
Typo	SU+ (C) PUR FB (2×2×AWG24+1×2×AWG22)		
Type	,		
Part No.	<u>104002</u>		
Product version			
Datasheet version	00		
Use/Application/Properties			
Application	 Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor Through optimized cable construction optimally suited for continuous flexing applications in C-tracks Very good resitance against aggressive coolants and lubricants 		

Properties

- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS (C) PUR FEEDBACK Description

(2×2×AWG24+1×2×AWG22) Number of conductors/cross-section

Number of conductors 6

0.34 mm² Cross-section, metric Cross-section AWG AWG 22

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

 Outer Ø
 6.95 mm

 Outer Ø
 0.274 inch

 Weight
 6.5 kg/100 m

 Weight
 65 Lbs/Mft

 Cu-Index
 3.2 kg/100 m

 Cu-Index
 21 Lbs/Mft

Construction Element 1

Element construction 2×2×AWG24
Conductor construction AWG 24
Conductor CU-wire bare

Conductor marking yellow • green • blue • pink

Conductor insulation PE blend

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 1×2×AWG22
Conductor construction AWG 22

Conductor CU-wire tin-plated

Conductor marking red • black
Conductor insulation PE blend

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding stranded pairs

Overall wrapping Non-woven material

Overall shield Foil shield

Braid shield

tinned copper wires

optical cover approx. 85 %

metallised fleece

optical cover approx. 100 %

Jacket characteristics Halogen free

Flame-retardant

UV resistant (normal lighting conditions)

hydrolysis-resistant

PUR feedback cables · C-track compatible · shielded

Temperature range moving $-20 \,^{\circ}\text{C} \dots +60 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion \pm 30°/m

Technical Data Element 1

Element construction $2\times2\times AWG24$ Insulation resistance at 20 °C $\geq 2000 \text{ M}\Omega\times km$ Conductor resistance $\leq 97.5 \Omega/km$ Operating capacitance wire-wire approx.50 pF/m

Technical Data Element 2

Element construction $1 \times 2 \times AWG22$ Conductor resistance $\leq 56.4 \Omega/km$

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20233

Conformity CE RoHS

110110

Burning behavior according to IEC 60332-1-1 to 1-3

UL Cable Flame Test (UL 1581)

UL FT1

Oil resistant according to UL 758
Halogen free according to EN 60754-1

VDE 0482-754-1

UV-resistant according to UL 1581

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* SIEMENS and DRIVE-CLiQ are registered trademarks

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×70 1kV SW

Part No. <u>111131</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×70
Number of conductors 1

Cross-section, metric 70 mm²
Cross-section AWG 2/0
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

 Outer Ø
 16.6 mm

 Outer Ø
 0.654 inch

Surface adhesion-free, matte

 Weight
 78.3 kg/100 m

 Weight
 526 Lbs/Mft

 Cu-Index
 64.5 kg/100 m

 Cu-Index
 433 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×70

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $4 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×70

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×50 1kV SW

Part No. <u>111130</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×50
Number of conductors 1

Cross-section, metric 50 mm²
Cross-section AWG AWG 1
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

 Outer Ø
 15.2 mm

 Outer Ø
 0.598 inch

Surface adhesion-free, matte

 Weight
 57.2 kg/100 m

 Weight
 384 Lbs/Mft

 Cu-Index
 47.8 kg/100 m

 Cu-Index
 321 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×50

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving -25 °C ... +80 °C
Temperature range fixed -40 °C ... +80 °C

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×50

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×35 1kV SW

Part No. <u>111129</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×35 Number of conductors 1

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

 Outer Ø
 13.4 mm

 Outer Ø
 0.528 inch

Surface adhesion-free, matte

 Weight
 43.1 kg/100 m

 Weight
 290 Lbs/Mft

 Cu-Index
 32.6 kg/100 m

 Cu-Index
 219 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×35

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving -25 °C ... +80 °C
Temperature range fixed -40 °C ... +80 °C

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×35

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×16 1kV SW

Part No. <u>111127</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×16
Number of conductors 1

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

 Outer Ø
 9.9 mm

 Outer Ø
 0.386 inch

Surface adhesion-free, matte

 Weight
 20.5 kg/100 m

 Weight
 138 Lbs/Mft

 Cu-Index
 14.8 kg/100 m

 Cu-Index
 99 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×16

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×16

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements









Identification

Type SU+ PUR 1×25 1kV SW

Part No. <u>111128</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×25 Number of conductors 1

Cross-section, metric 25 mm²
Cross-section AWG AWG 4
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

 Outer Ø
 11.4 mm

 Outer Ø
 0.449 inch

Surface adhesion-free, matte

 Weight
 30.6 kg/100 m

 Weight
 206 Lbs/Mft

 Cu-Index
 23.3 kg/100 m

 Cu-Index
 157 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×25

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving -25 °C ... +80 °C
Temperature range fixed -40 °C ... +80 °C

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×25

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1G6 1kV GNGE

Part No. <u>111241</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1G6
Number of conductors 1
Cross-section, metric 6 mm²
Cross-section AWG AWG 10
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color green-yellow Outer Ø 7.1 mm

Surface adhesion-free, matte

 Weight
 9 kg/100 m

 Cu-Index
 5.6 kg/100 m

Cable construction Without screen, insulation and jacket greenyellow

Construction Element 1

Element construction 1G6

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking yellow/green
Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $4 \times D$ Bending cycles ≥10 Mio

Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1G6

Operating capacitance wire-wire approx.382 pF/m

Certifications/Standards

PUR motor cables · C-track compatible · unshielded

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1G16 1kV GNGE

Part No. <u>111197</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1G16 Number of conductors 1

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket colorgreen-yellowOuter \emptyset 9.9 mmOuter \emptyset 0.386 inch

Surface adhesion-free, matte

 Weight
 20.5 kg/100 m

 Weight
 138 Lbs/Mft

 Cu-Index
 14.8 kg/100 m

 Cu-Index
 99 Lbs/Mft

Cable construction Without screen, insulation and jacket greenyellow

Construction Element 1

Element construction 1G16

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking yellow/green
Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1G16

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×6 1kV SW

Part No. <u>111136</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Halogen-free, no corrosive gases
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×6
Number of conductors 1
Cross-section, metric 6 mm²
Cross-section AWG AWG 10
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

Outer \emptyset 7.1 mm Outer \emptyset 0.279 inch

Surface adhesion-free, matte

 Weight
 9 kg/100 m

 Weight
 61 Lbs/Mft

 Cu-Index
 5.6 kg/100 m

 Cu-Index
 38 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×6

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $4 \times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×6

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×120 1kV SW

Part No. <u>111133</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×120 Number of conductors 1

Cross-section, metric 120 mm²
Cross-section AWG 4/0
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

Outer \emptyset 22.6 mm Outer \emptyset 0.89 inch

Surface adhesion-free, matte
Weight 130.2 kg/100 m
Weight 874 Lbs/Mft
Cu-Index 120 kg/100 m
Cu-Index 806 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×120

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving -25 °C ... +80 °C
Temperature range fixed -40 °C ... +80 °C

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×120

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1×95 1kV SW

Part No. <u>111132</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1×95 Number of conductors 1

Cross-section, metric 95 mm²
Cross-section AWG 3/0
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket color black similar to RAL 9005

Outer \emptyset 19.2 mm Outer \emptyset 0.756 inch

Surface adhesion-free, matte
Weight 104.3 kg/100 m
Weight 701 Lbs/Mft
Cu-Index 88.8 kg/100 m
Cu-Index 597 Lbs/Mft

Cable construction Without shield, black

Construction Element 1

Element construction 1×95

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black

Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving -25 °C ... +80 °C
Temperature range fixed -40 °C ... +80 °C

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1×95

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G1,5+2×(2×0,75))

Part No. <u>111271.1000</u> BOSCH REXROTH designation* REL0106

Product version

Datasheet version 01

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G1.5+2×(2×0.75))

Number of conductors 8

Cross-section, metric 1.5 mm²
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 12.2 mm Outer \emptyset 0.48 inch

Surface adhesion-free, matte
Weight 24.3 kg/100 m
Weight 163.3 Lbs/Mft
Cu-Index 16.2 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction 2×(2×0.75)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.67 pF/m

Operating capacitance wire-shield approx.115 pF/m

Technical Data Element 2

Element construction $2\times(2\times0.75)$ Insulation resistance at 20 °C $1000~M\Omega\times km$ Operating capacitance wire-wire approx.140 pF/m Operating capacitance wire-shield approx.252 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

PUR servo cables · C-track compatible · shielded

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements







halogen free







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Type SU+ M (C) PUR SE (4G1,5+2×(2×0,75))

Part No. <u>111271</u>
INK Description* INK 0650

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G1.5+2×(2×0.75))

Number of conductors 8

Cross-section, metric 1.5 mm²
Cross-section AWG AWG 18
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 12.9 mm Outer \emptyset 0.508 inch

Surface adhesion-free, matte

 Weight
 25.5 kg/100 m

 Weight
 171 Lbs/Mft

 Cu-Index
 16.2 kg/100 m

 Cu-Index
 109 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×0.75)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

PVC servo cables · C-track compatible · shielded

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.67 pF/m

Operating capacitance wire-shield approx.115 pF/m

Technical Data Element 2

Element construction 2×(2×0.75)

Operating capacitance wire-wire approx.140 pF/m

Operating capacitance wire-shield approx.252 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

PVC servo cables · C-track compatible · shielded

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

registered trademarks of the Bosch Group.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G1,0+2×(2×0,75))

Part No. <u>111270.1000</u> BOSCH REXROTH designation* REL0105

Product version

Datasheet version 01

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G1.0+2×(2×0.75))

Number of conductors 8

Cross-section, metric 1 mm²

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 11.9 mm Outer \emptyset 0.472 inch

Surface adhesion-free, matte
Weight 21.5 kg/100 m
Weight 144.47 Lbs/Mft
Cu-Index 13.8 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G1

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking brown • black • grey • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction 2×(2×0.75)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking pink • white • red • blue

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.63 pF/m

Operating capacitance wire-shield approx.115 pF/m

Technical Data Element 2

Element construction $2\times(2\times0.75)$ Insulation resistance at 20 °C $1000~M\Omega\times km$ Operating capacitance wire-wire approx.140 pF/m Operating capacitance wire-shield approx.252 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2

PUR servo cables · C-track compatible · shielded

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements







halogen free





LÜTZE SUPERFLEX®





Identification

Part No. 111270 **INK 0653 INK Description***

Product version

Type

02 Datasheet version

Use/Application/Properties

Application

Properties

For Indramat* system (and similar)

SU+ M (C) PUR SE (4G1,0+2×(2×0,75))

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G1.0+2×(2×0.75))

Number of conductors 8

Cross-section, metric 1 mm²

Cross-section AWG AWG 18

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 12.5 mm Outer \emptyset 0.492 inch

Surface adhesion-free, matte

 Weight
 23.2 kg/100 m

 Weight
 155 Lbs/Mft

 Cu-Index
 13.8 kg/100 m

 Cu-Index
 93 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G1

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×0.75)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

PVC servo cables · C-track compatible · shielded

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G1

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.63 pF/m

Operating capacitance wire-shield approx.115 pF/m

Technical Data Element 2

Element construction 2×(2×0.75)

Operating capacitance wire-wire approx.140 pF/m

Operating capacitance wire-shield approx.252 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

PVC servo cables · C-track compatible · shielded

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

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PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1G10 1kV GNGE

Part No. <u>111243</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Halogen-free, no corrosive gases
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1G10 Number of conductors 1

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket colorgreen-yellowOuter \emptyset 8.4 mmOuter \emptyset 0.331 inch

Surface adhesion-free, matte

 Weight
 13.8 kg/100 m

 Weight
 93 Lbs/Mft

 Cu-Index
 9.3 kg/100 m

 Cu-Index
 62 Lbs/Mft

Cable construction Without screen, insulation and jacket greenyellow

Construction Element 1

Element construction 1G10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking yellow/green
Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1G10

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements















halogen free

LÜTZE SUPERFLEX®

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Туре SU+ M (C) PUR SE (4G35+2×(2×1,5))

Part No. 111278 **INK 0667 INK Description***

Product version

02 Datasheet version

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G35+2×(2×1.5))

Number of conductors 8

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 32.5 mm Outer \emptyset 1.28 inch

Surface adhesion-free, matte
Weight 217.6 kg/100 m
Weight 1458 Lbs/Mft
Cu-Index 164 kg/100 m
Cu-Index 1067 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G35

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

mechanical stress

PVC servo cables · C-track compatible · shielded

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $10 \times D \ge 25 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G35

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.82 pF/m

Operating capacitance wire-shield approx.148 pF/m

Technical Data Element 2

Element construction $2\times(2\times1.5)$

Operating capacitance wire-wire approx.157 pF/m
Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

PVC servo cables · C-track compatible · shielded

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Leitungen für MS2N Motoren. Bosch-Rexroth und REL

Artikelbezeichnungen sind eingetragene Warenzeichen der Bosch Gruppe.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements













Identification

SU+ M (C) PUR SE (4G25+2×(2×1,5)) Type

Part No. 111277.1000 BOSCH REXROTH designation* **REL0112**

Product version

01 Datasheet version

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G25+2×(2×1.5))

Number of conductors 8

Cross-section, metric 25 mm²
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 29.8 mm Outer \emptyset 1.173 inch

Surface adhesion-free, matte
Weight 167.9 kg/100 m
Weight 1128.23 Lbs/Mft
Cu-Index 126 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G25

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction 2×(2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

 $\begin{array}{lll} \mbox{Rated voltage U}_0 \mbox{/U} & \mbox{600/1000 V} \\ \mbox{Rated voltage UL} & \mbox{1000 V} \\ \mbox{Test voltage type} & \mbox{AC 4000 V} \end{array}$

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G25

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.82 pF/m

Operating capacitance wire-shield approx.148 pF/m

Technical Data Element 2

Element construction $2\times(2\times1.5)$ Insulation resistance at 20 °C $1000~M\Omega\times km$ Operating capacitance wire-wire approx.157 pF/m Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2

PUR servo cables · C-track compatible · shielded

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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* Cables for MS2N motors. Bosch Rexroth and REL article designations are

registered trademarks of the Bosch Group.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements











Identification

SU+ M (C) PUR SE (4G16+2×(2×1,5) Type

Part No. 111276.1000 BOSCH REXROTH designation* **REL0111**

Product version

01 Datasheet version

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G16+2×(2×1.5))

Number of conductors 8

Cross-section, metric 16 mm²
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 25.5 mm

 Outer Ø
 1.003 inch

Surface adhesion-free, matte
Weight 116.9 kg/100 m
Weight 785.53 Lbs/Mft
Cu-Index 89.1 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G16

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction 2×(2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G16

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.81 pF/m

Operating capacitance wire-shield approx.146 pF/m

Technical Data Element 2

Element construction $2\times(2\times1.5)$ Insulation resistance at 20 °C $1000~M\Omega\times km$ Operating capacitance wire-wire approx.157 pF/m Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

PUR servo cables · C-track compatible · shielded

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements

















LÜTZE SUPERFLEX®

Identification

SU+ M (C) PUR SE (4G25+2×(2×1,5)) Type

Part No. 111277 **INK 0607 INK Description***

Product version

02 Datasheet version

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G25+2×(2×1.5))

Number of conductors 8

Cross-section, metric 25 mm²
Cross-section AWG AWG 4
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 29.3 mm Outer \emptyset 1.547 inch

Surface adhesion-free, matte
Weight 171.4 kg/100 m
Weight 1148 Lbs/Mft
Cu-Index 126 kg/100 m
Cu-Index 801 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G25

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

mechanical stress

PVC servo cables · C-track compatible · shielded

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $10 \times D \ge 25 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G25

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.82 pF/m

Operating capacitance wire-shield approx.148 pF/m

Technical Data Element 2

Element construction $2\times(2\times1.5)$

Operating capacitance wire-wire approx.157 pF/m
Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

PVC servo cables · C-track compatible · shielded

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements

















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Type SU+ M (C) PUR SE (4G16+2×(2×1,5)

Part No. <u>111276</u>
INK Description* INK 0606

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G16+2×(2×1.5))

Number of conductors 8

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 26.8 mm Outer \emptyset 1.055 inch

Surface adhesion-free, matte
Weight 106.4 kg/100 m
Weight 713 Lbs/Mft
Cu-Index 89.1 kg/100 m
Cu-Index 553 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G16

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

mechanical stress

PVC servo cables · C-track compatible · shielded

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G16

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.81 pF/m

Operating capacitance wire-shield approx.146 pF/m

Technical Data Element 2

Element construction $2\times(2\times1.5)$

Operating capacitance wire-wire approx.157 pF/m
Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

PVC servo cables · C-track compatible · shielded

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements









Identification

Type SU+ (C) PUR (1×10) 1kV SW

Part No. <u>111289</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×10)

Number of conductors 1

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · shielded

Outer \emptyset 9 mm Outer \emptyset 0.354 inch

Surface adhesion-free, matte

 Weight
 17.1 kg/100 m

 Weight
 115 Lbs/Mft

 Cu-Index
 12.1 kg/100 m

 Cu-Index
 81 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×10)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Technical Data Element 1

PUR motor cables · C-track compatible · shielded

Certi	fication	ons/S	tand	ards

Certifications cURus

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 cable flame

UL FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements









Identification

Type SU+ (C) PUR (1×6) 1kV SW

Part No. <u>111288</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- · Compatible with all major drag chain brands
- · Compliant with NFPA 79, Article 12.9
- Through full PUR jacket and TPE conductor insulation optimally suited, extremely harsh operating conditions, aggressive coolants and lubricants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×6)
Number of conductors 1

Cross-section, metric 6 mm²
Cross-section AWG AWG 10
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · shielded

Outer \emptyset 7.7 mm Outer \emptyset 0.303 inch

Surface adhesion-free, matte

 Weight
 11.5 kg/100 m

 Weight
 77 Lbs/Mft

 Cu-Index
 7.7 kg/100 m

 Cu-Index
 52 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×6)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $6 \times D$ Bending cycles≥10 MioSpeed300Acceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

Technical Data Element 1

Note

PUR motor cables \cdot C-track compatible \cdot shielded

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements











Identification

SU+ M (C) PUR SE (4G2,5+2×(2×1,0)) Type

Part No. 111279.1000 BOSCH REXROTH designation* **REL0107**

Product version

01 Datasheet version

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G2.5+2×(2×1.0))

Number of conductors 8

Cross-section, metric 2.5 mm²
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 14.6 mm Outer \emptyset 0.583 inch

Surface adhesion-free, matte
Weight 33.9 kg/100 m
Weight 227.8 Lbs/Mft
Cu-Index 22.6 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction 2×(2×1,0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.71 pF/m

Operating capacitance wire-shield approx.115 pF/m

Technical Data Element 2

Element construction $2\times(2\times1,0)$ Insulation resistance at 20 °C $1000~M\Omega\times km$ Operating capacitance wire-wire approx.135 pF/m Operating capacitance wire-shield approx.243 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE RoHS

REACH TSCA

Burning behavior according to VDE 0482-332-1-2

PUR servo cables · C-track compatible · shielded

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

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PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1G35 1kV GNGE

Part No. <u>111285</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1G35 Number of conductors 1

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

 Jacket color
 green-yellow

 Outer Ø
 13.4 mm

 Outer Ø
 0.528 inch

Surface adhesion-free, matte

 Weight
 43.1 kg/100 m

 Weight
 290 Lbs/Mft

 Cu-Index
 32.6 kg/100 m

 Cu-Index
 219 Lbs/Mft

Cable construction Without screen, insulation and jacket greenyellow

Construction Element 1

Element construction 1G35

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking yellow/green
Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥10 Mio
Speed 5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1G35

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements







halogen free







Identification

SU+ M (C) PUR SE (4G2,5+2×(2×1,0)) Type

Part No. 111279 **INK 0602 INK Description***

Product version

02 Datasheet version

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G2.5+2×(2×1.0))

Number of conductors 8

Cross-section, metric 2.5 mm² Cross-section AWG **AWG 14 PUR** Jacket material

Jacket color orange similar to RAL 2003

Outer Ø 14.2 mm Outer Ø 0.559 inch

adhesion-free, matte Surface

Weight 33 kg/100 m 221 Lbs/Mft Weight 22.6 kg/100 m Cu-Index Cu-Index 152 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

black • with white number print • yellow/green Conductor marking

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping Element shielding Braid shield

> tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

mechanical stress

PVC servo cables · C-track compatible · shielded

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.71 pF/m

Operating capacitance wire-shield approx.115 pF/m

Technical Data Element 2

Element construction 2×(2×1)

Operating capacitance wire-wire approx.135 pF/m
Operating capacitance wire-shield approx.243 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

PVC servo cables · C-track compatible · shielded

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×50) 1KV SW

Part No. <u>111293</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×50)

Number of conductors 1

Cross-section, metric 50 mm²
Cross-section AWG AWG 1
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · shielded

Outer \emptyset 15.8 mm Outer \emptyset 0.622 inch

Surface adhesion-free, matte

 Weight
 63.1 kg/100 m

 Weight
 424 Lbs/Mft

 Cu-Index
 53.1 kg/100 m

 Cu-Index
 356 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction 1×50)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $6 \times D$ Bending cycles≥10 MioSpeed300Acceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

Technical Data Element 1

Note

PUR motor cables \cdot C-track compatible \cdot shielded

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332-1-2 332-1-2 1 ble flame
Г 10 311-404
754-1
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35/EU

CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×70) 1KV SW

Part No. <u>111294</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×70)

Number of conductors 1

Cross-section, metric 70 mm²
Cross-section AWG 2/0
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · shielded

Outer \emptyset 17.4 mm Outer \emptyset 0.685 inch

Surface adhesion-free, matte

 Weight
 85.3 kg/100 m

 Weight
 573 Lbs/Mft

 Cu-Index
 70.6 kg/100 m

 Cu-Index
 473 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×70)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Technical Data Element 1

PUR motor cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 10587

Conformity

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2

IEC 60332-1

UL 1581 cable flame

UL FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×35) 1KV SW

Part No. <u>111292</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×35)

Number of conductors 1

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

PUR motor cables · C-track compatible · shielded

Outer \emptyset 14 mm Outer \emptyset 0.551 inch

Surface adhesion-free, matte

 Weight
 48.1 kg/100 m

 Weight
 323 Lbs/Mft

 Cu-Index
 37.3 kg/100 m

 Cu-Index
 250 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×35)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant
Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $6 \times D$ Bending cycles≥10 MioSpeed300Acceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

Technical Data Element 1

Note

PUR motor cables \cdot C-track compatible \cdot shielded

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332-1-2 332-1-2 1 ble flame
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35/EU

CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×16) 1KV SW

Part No. <u>111290</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×16)

Number of conductors 1

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

PUR motor cables · C-track compatible · shielded

Outer \emptyset 10.4 mm Outer \emptyset 0.409 inch

Surface adhesion-free, matte

 Weight
 24.1 kg/100 m

 Weight
 162 Lbs/Mft

 Cu-Index
 18.1 kg/100 m

 Cu-Index
 121 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×16)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $6 \times D$ Bending cycles≥10 MioSpeed300Acceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

Technical Data Element 1

PUR motor cables · C-track compatible · shielded

Certi	fication	ons/S	tand	ards

Certifications cURus

UL style AWM 10587

Conformity

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 cable flame

UL FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×25) 1KV SW

Part No. <u>111291</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×25)

Number of conductors 1

Cross-section, metric 25 mm²
Cross-section AWG AWG 4
Jacket material PUR

PUR motor cables · C-track compatible · shielded

Outer \emptyset 12 mm Outer \emptyset 0.472 inch

Surface adhesion-free, matte

 Weight
 35.3 kg/100 m

 Weight
 237 Lbs/Mft

 Cu-Index
 27.3 kg/100 m

 Cu-Index
 183 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×25)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed $6\times D$ Bending cycles ≥10 Mio

Speed 300Acceleration 50 m/s²

Torsion $±30^{\circ}/m$

Technical Data Element 1

Note

PUR motor cables \cdot C-track compatible \cdot shielded

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332-1-2 332-1-2 1 ble flame
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35/EU

CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G1,5 1KV SW

Part No. <u>111370</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G1.5 Number of conductors 4

Cross-section, metric 1.5 mm²
Cross-section AWG AWG 16
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

8.2 mm Outer Ø Outer Ø 0.323 inch

Surface adhesion-free, matte

10.5 kg/100 m Weight Weight 81 Lbs/Mft 5.8 kg/100 m Cu-Index Cu-Index 39 Lbs/Mft

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material Jacket characteristics Flame-retardant Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U₀/U 600/1000 V Rated voltage UL 1000 V AC 4000 V Test voltage type

-25 °C ... +80 °C Temperature range moving -40 °C ... +80 °C Temperature range fixed

Minimum bending radius moving 7.5×D Minimum bending radius fixed 4×D Bending cycles ≥5 Mio Speed ≤4 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.60 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581

VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G2,5 1KV SW

Part No. <u>111371</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G2.5 Number of conductors 4

Cross-section, metric 2.5 mm²
Cross-section AWG AWG 14
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Outer \emptyset 10 mm Outer \emptyset 0.394 inch

Surface adhesion-free, matte

 Weight
 15.2 kg/100 m

 Weight
 96 Lbs/Mft

 Cu-Index
 9.7 kg/100 m

 Cu-Index
 64 Lbs/Mft

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Jacket characteristics Flame-retardant
Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed4×DBending cycles≥5 MioSpeed≤4 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.45 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581

VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS PUR 0.6/1kV For highest requirements











Identification

Type SU+ PUR 1G25 1kV GNGE

Part No. <u>111337</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- Halogen-free, no corrosive gases
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS PUR 0.6/1 kV

Number of conductors/cross-section 1G25 Number of conductors 1

Cross-section, metric 25 mm²
Cross-section AWG AWG 6
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Jacket colorgreen-yellowOuter \emptyset 11.4 mmOuter \emptyset 0.449 inch

Surface adhesion-free, matte

 Weight
 30.6 kg/100 m

 Weight
 206 Lbs/Mft

 Cu-Index
 23.3 kg/100 m

 Cu-Index
 157 Lbs/Mft

Cable construction Without screen, insulation and jacket greenyellow

Construction Element 1

Element construction 1G25

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking yellow/green
Conductor insulation Special TPE

Overall construction

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $4 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2

Technical Data Element 1

Element construction 1G25

PUR motor cables · C-track compatible · unshielded

UL style AWM 10587

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2

UL 1581 UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×95) 1KV SW

Part No. <u>111295</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×95)

Number of conductors 1

Cross-section, metric 95 mm²
Cross-section AWG 3/0
Jacket material PUR

PUR motor cables · C-track compatible · shielded

Outer \emptyset 20.2 mm Outer \emptyset 0.795 inch

Surface adhesion-free, matte
Weight 114.6 kg/100 m
Weight 770 Lbs/Mft
Cu-Index 98 kg/100 m
Cu-Index 657 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×95)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $6 \times D$ Bending cycles≥10 MioSpeed300Acceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

Technical Data Element 1

PUR motor cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 10587

Conformity

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2

IEC 60332-1

UL 1581 cable flame

UL FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS (C) PUR 0.6/1kV For highest requirements











Identification

Type SU+ (C) PUR (1×120) 1KV SW

Part No. <u>111296</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Performance conductor, specifically for machine and device engineering, transport and conveyor technology
- · As motor supply or grounding cable
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR 0.6/1 kV

Number of conductors/cross-section (1×120)

Number of conductors 1

Cross-section, metric 120 mm²
Cross-section AWG 4/0
Jacket material PUR

Jacket color black similar to RAL 9005

Outer Ø 23.6 mm

PUR motor cables · C-track compatible · shielded

Outer Ø 0.929 inch

Surface adhesion-free, matte
Weight 143.1 kg/100 m
Weight 962 Lbs/Mft
Cu-Index 132 kg/100 m
Cu-Index 884 Lbs/Mft

Cable construction With CU shield, black

Construction Element 1

Element construction (1×120)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor insulation Special TPE

Overall construction

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $6 \times D$ Bending cycles≥10 MioSpeed300Acceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

Technical Data Element 1

PUR motor cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 10587

Conformity

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2

IEC 60332-1

UL 1581 cable flame

UL FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G16 1KV SW

Part No. <u>111375</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G16 Number of conductors 4

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Outer Ø 20.4 mm Outer Ø 0.803 inch

Surface adhesion-free, matte

78.8 kg/100 m Weight Weight 663 Lbs/Mft 62.2 kg/100 m Cu-Index Cu-Index 411 Lbs/Mft

Construction Element 1

Element construction 4G16

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material Jacket characteristics Flame-retardant Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U₀/U 600/1000 V Rated voltage UL 1000 V AC 4000 V Test voltage type

-25 °C ... +80 °C Temperature range moving -40 °C ... +80 °C Temperature range fixed

Minimum bending radius moving 7.5×D Minimum bending radius fixed 4×D Bending cycles ≥5 Mio Speed ≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.72 pF/m

Ca	rtifi	cati	one	/Stai	nda	rde
		Call	una	J D L a	IIUa	I U.S

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

SU+ M PUR 4G25 1KV SW Type

Part No. 111376

Product version

03 Datasheet version

Use/Application/Properties

Application

- · Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M PUR 0.6/1 kV Description

4G25 Number of conductors/cross-section Number of conductors

25 mm² Cross-section, metric Cross-section AWG AWG 4 Jacket material **PUR**

PUR motor cables · C-track compatible · unshielded

 Outer Ø
 24.2 mm

 Outer Ø
 0.953 inch

Surface adhesion-free, matte
Weight 120.8 kg/100 m
Weight 804 Lbs/Mft
Cu-Index 96 kg/100 m
Cu-Index 643 Lbs/Mft

Construction Element 1

Element construction 4G25

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Jacket characteristics Flame-retardant
Oil resistant

grease resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed $4\times D$ Bending cycles = 5 Mio

Speed $\leq 2 \text{ m/s}$

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.74 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G6 1KV SW

Part No. <u>111373</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G6
Number of conductors 4
Cross-section, metric 6 mm²
Cross-section AWG AWG 10
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Outer \emptyset 13.6 mm Outer \emptyset 0.535 inch

Surface adhesion-free, matte

 Weight
 33.8 kg/100 m

 Weight
 220 Lbs/Mft

 Cu-Index
 23.3 kg/100 m

 Cu-Index
 155 Lbs/Mft

Construction Element 1

Element construction 4G6

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed4×DBending cycles≥5 MioSpeed≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.74 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G10 1KV SW

Part No. <u>111374</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G10 Number of conductors 4

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

PUR motor cables · C-track compatible · unshielded

Outer Ø 16.8 mm Outer Ø 0.661 inch

Surface adhesion-free, matte

55.5 kg/100 m Weight Weight 352 Lbs/Mft 39.1 kg/100 m Cu-Index Cu-Index 257 Lbs/Mft

Construction Element 1

Element construction 4G10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material Jacket characteristics Flame-retardant Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U₀/U 600/1000 V Rated voltage UL 1000 V AC 4000 V Test voltage type

-25 °C ... +80 °C Temperature range moving -40 °C ... +80 °C Temperature range fixed

Minimum bending radius moving 7.5×D Minimum bending radius fixed 4×D Bending cycles ≥5 Mio Speed ≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.72 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G4 1KV SW

Part No. <u>111372</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G4
Number of conductors 4
Cross-section, metric 4 mm²
Cross-section AWG AWG 12
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

Outer \emptyset 11.6 mm Outer \emptyset 0.457 inch

Surface adhesion-free, matte

 Weight
 22.2 kg/100 m

 Weight
 156 Lbs/Mft

 Cu-Index
 15.5 kg/100 m

 Cu-Index
 103 Lbs/Mft

Construction Element 1

Element construction 4G4

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Jacket characteristics Flame-retardant
Oil resistant

grease resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

 $\begin{array}{lll} \mbox{Rated voltage U}_0 \mbox{/U} & 600 \mbox{/ } 1000 \mbox{ V} \\ \mbox{Rated voltage UL} & 1000 \mbox{ V} \\ \mbox{Test voltage type} & \mbox{AC 4000 V} \\ \end{array}$

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $4 \times D$ Bending cycles = 5 MioSpeed $\leq 4 \text{ m/s}$

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.69 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology







LÜTZE SUPERFLEX®



Identification

Type SU+(C) PUR FB (8×2×0,18) 30V

Part No. <u>111412</u> SIEMENS designation* 1BD11

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (8×2×0.18)

Number of conductors 16

Cross-section, metric 0.18 mm²

PUR feedback cables · C-track compatible · shielded

PUR Jacket material

Jacket color green similar to RAL 6018

Outer Ø 8.2 mm Outer Ø 0.323 inch

Surface adhesion-free, matte

Weight 13.1 kg/100 m 88 Lbs/Mft Weight Cu-Index 7.3 kg/100 m Cu-Index 49 Lbs/Mft

Construction Element 1

Element construction $(8 \times 2 \times 0.18)$

Conductor CU-wire tin-plated Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white/green • white/yellow • white/red • white/orange • white/black • white/

brown • white • grey • violet • blue • green • yellow • red • orange • brown •

black

Conductor insulation Polyolefin

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding layered construction Overall wrapping Non-woven material

Overall shield Braid shield

> tinned copper wires optical cover approx. 85 %

Jacket characteristics Flame-retardant Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

30 V Rated voltage AC 500 V Test voltage type

-25 °C ... +80 °C Temperature range moving

PUR feedback cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction $(8 \times 2 \times 0.18)$ Insulation resistance at 20 °C ≥200 MΩ×km Operating capacitance wire-wire approx.53 pF/m Operating capacitance wire-shield approx.96 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity CE

RoHS

REACH

Burning behavior according to IEC 60332-1

> DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

UL 1581 Oil resistant according to

HD 22.10

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

CE These products are in conformity with the EU Low Voltage Directive 2014/ Note

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* SIEMENS article designations are registered trademarks of SIEMENS AG

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G4+2×(2×1,0))

Part No. <u>111388.1000</u>
BOSCH REXROTH designation* REL0108

Product version

Datasheet version 01

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G4+(2×1.0)+(2×1.5))

Number of conductors 8

Cross-section, metric 4 mm²

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 17 mm Outer \emptyset 0.669 inch

Surface adhesion-free, matte

 Weight
 42 kg/100 m

 Weight
 282.22 Lbs/Mft

 Cu-Index
 32.9 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G4

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction 2×(2×1,0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \,^{\circ}\text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G4

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.77 pF/m

Operating capacitance wire-shield approx.139 pF/m

Technical Data Element 2

Element construction $2\times(2\times1,0)$ Insulation resistance at 20 °C $1000~M\Omega\times km$ Operating capacitance wire-wire approx.135 pF/m Operating capacitance wire-shield approx.243 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

PUR servo cables · C-track compatible · shielded

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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* Cables for MS2N motors. Bosch Rexroth and REL article designations are

registered trademarks of the Bosch Group.

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

SU+ M PUR 4G50 1KV SW Type

Part No. 111378

Product version

03 Datasheet version

Use/Application/Properties

Application

- · Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M PUR 0.6/1 kV Description

4G50 Number of conductors/cross-section Number of conductors

50 mm² Cross-section, metric Cross-section AWG AWG 1 Jacket material **PUR**

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

 Outer Ø
 33

 Outer Ø
 1.299

Surface adhesion-free, matte
Weight 265.1 kg/100 m
Weight 1642 Lbs/Mft
Cu-Index 200.1 kg/100 m
Cu-Index 1286 Lbs/Mft

Construction Element 1

Element construction 4G50

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed4×DBending cycles≥5 MioSpeed≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire	approx.70 pF/m				
Certifications/Standards					
Certifications	cURus				
UL style	AWM 21223				
Conformity	CE RoHS REACH TSCA				
Burning behavior according to	VDE 0482-332-1-2 DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1				
Oil resistant according to	UL 4d100C VDE 0282 T 10 DIN EN 60811-404				
Halogen free according to	DIN EN 60754-1				

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

IEC 60754-1

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements

















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Type SU+ M (C) PUR SE (4G4+(2×1,0)+(2×1,5))

Part No. <u>111388</u>
INK Description* INK 0603

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G4+(2×1.0)+(2×1.5))

Number of conductors 8

Cross-section, metric 4 mm²

Cross-section AWG AWG 12

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 16.3 mm Outer \emptyset 0.642 inch

Surface adhesion-free, matte

 Weight
 38 kg/100 m

 Weight
 255 Lbs/Mft

 Cu-Index
 32.9 kg/100 m

 Cu-Index
 173 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G4

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

PVC servo cables · C-track compatible · shielded

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

PVC servo cables · C-track compatible · shielded

Operating capacitance wire-shield approx.139 pF/m

Technical Data Element 2

Element construction (2×1)

Operating capacitance wire-wire approx.135 pF/m
Operating capacitance wire-shield approx.243 pF/m

Technical Data Element 3

Element construction (2×1.5)

Operating capacitance wire-wire approx.157 pF/m
Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 UL 1581 part 1080 VW-1

UL FT1 UL VW-1

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

registered trademarks of the Bosch Group.

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

Type SU+ M PUR 4G35 1KV SW

Part No. <u>111377</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 4G35 Number of conductors 4

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

 Outer Ø
 27.8

 Outer Ø
 1.094

Surface adhesion-free, matte
Weight 172.5 kg/100 m
Weight 1240 Lbs/Mft
Cu-Index 136.5 kg/100 m
Cu-Index 901 Lbs/Mft

Construction Element 1

Element construction 4G35

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥5 Mio
Speed ≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.74 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404

Oil Res II

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

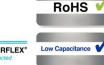
PUR servo cables

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements













LÜTZE SUPERFLEX

Identification

SU+ M (C) PUR SE (4G2,5+(2×1,5)) 1kV Type

Part No. 111421 1BA21 SIEMENS designation*

Product version

04 Datasheet version

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5+(2×1.5))

Number of conductors 6

PUR servo cables

Cross-section, metric 2.5 mm²
Cross-section AWG AWG 14
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 12.9 mm

 Outer Ø
 0.508 inch

Surface adhesion-free, matte

 Weight
 23.5 kg/100 m

 Weight
 158 Lbs/Mft

 Cu-Index
 19.3 kg/100 m

 Cu-Index
 130 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.105 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.185 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables

General

Note

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

* Cables for MOTION-CONNECT 800PLUS. Siemens, MOTION-CONNECT 800PLUS and Siemens article designations are registered trademarks of Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G1,5+(2×1,5)) 90°C

Part No. <u>111420.1000</u> SIEMENS designation* 1BA11

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G1,5+(2×1,5))

Number of conductors 6

Cross-section, metric 1.5 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 11.6 mm

Surface adhesion-free, matte
Weight 21.93 kg/100 m
Weight 146.92 Lbs/Mft
Cu-Index 14.9 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G1,5)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Cu-wire bare

Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000 Test voltage type AC 4000 V Temperature range moving -25 °C ... +90 °C Temperature range fixed -40 °C ... +90 °C

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G1,5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

140 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Leitungen für MOTION-CONNECT 800PLUS. Siemens, MOTION-

CONNECT 800PLUS und Siemens Artikelbezeichnungen sind eingetragene

Warenzeichen der Siemens AG.

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Heidenhain and other systems For highest requirements in drive technology





LÜTZE SUPERFLEX®



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Type SU+ (C) PUR FB (4×0,5+4×2×0,14+(4×0,14))

Part No. <u>111418</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (4×0.5+4×2×0.14+(4×0.14))

Number of conductors 16

Cross-section, metric 0.5 mm²

Jacket material PUR

PUR feedback cables · C-track compatible

Jacket color black similar to RAL 9005

Outer Ø 8.6 mm

Surface adhesion-free, matte

Weight 12.3 kg/100 m Cu-Index 6 kg/100 m

Construction Element 1

Element construction 4×0.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue • brown/green • white/green

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 2

Element construction 4×2×0.14
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking yellow • violet • grey • pink • brown • green • red • black

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Construction Element 3

Element construction (4×0.14)
Conductor CU-wire

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Superintely strainted DIN VDL 029

class 6

Conductor marking green/black • blue/black • yellow/black • red/black

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Element shielding Spiral shield

optical cover approx. 95 %

tinned copper wires

mechanical stress

PUR feedback cables · C-track compatible

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion \pm 30°/m

Technical Data Element 1

Element construction 4×0.5

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.61 pF/m

Operating capacitance wire-shield approx.110 pF/m

Technical Data Element 2

Element construction $4\times2\times0.14$ Insulation resistance at 20 °C \geq 200 M Ω ×km

Operating capacitance wire-wire 104
Operating capacitance wire-shield 188 pF/m

Technical Data Element 3

Element construction (4×0.14)
Insulation resistance 20 °C \geq 200 M Ω ×km
Operating capacitance wire-wire 147 pF/m
Operating capacitance wire-shield 270 pF/m

PUR feedback cables · C-track compatible

Conformity CE

RoHS

REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

UL 1581

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G1,5+(2×1,5)) 1kV

Part No. <u>111420</u> SIEMENS designation* 1BA11

Product version

Datasheet version 04

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5+(2×1.5))

Number of conductors 6

PUR servo cables · shielded

Cross-section, metric 1.5 mm²
Cross-section AWG AWG 16
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 11.6 mm

 Outer Ø
 0.456 inch

Surface adhesion-free, matte

 Weight
 21 kg/100 m

 Weight
 141 Lbs/Mft

 Cu-Index
 14.9 kg/100 m

 Cu-Index
 100 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables · shielded

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.80 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.140 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables · shielded

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Note

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

* Cables for MOTION-CONNECT 800PLUS. Siemens, MOTION-CONNECT 800PLUS and Siemens article designations are registered trademarks of Siemens AG.

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for various systems For highest requirements in drive technology











Identification

Type SU+ (C) PUR FB 4×(2×AWG22) 300V

Part No. <u>111416</u> System NUM

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section 4×(2×AWG22)

Number of conductors 8

Jacket material PUR

PUR feedback cables · C-track compatible

Jacket color green similar to RAL 6018

Outer Ø 10.3 mm

Surface adhesion-free, matte

Weight 14.9 kg/100 m Cu-Index 6.6 kg/100 m

Construction Element 1

Element construction 4×(2×AWG22)

Conductor CU-wire tin-plated

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

IEC 60228, Class 6

Conductor marking black • white • black • green • black • blue • black • red

Conductor insulation PE

Stranding strands braided together

Element shielding Braid shield

Tinned copper wires optical cover approx. 90%

Overall construction

Overall stranding stranded pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 300 / 500 V

Rated voltage

Rated voltage UL 300 V
Test voltage type AC 2000 V

Temperature range moving -40 °C ... +80 °C

PUR feedback cables · C-track compatible

Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction 4×(2×AWG22)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.89 pF/m
Operating capacitance wire-shield approx.160 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 20233

Conformity CE

RoHS REACH

Burning behavior according to DIN EN 60332-1-2

VDE 0482-332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 50525-2-21 DIN EN 60811-404 DIN EN 60754-1

Halogen free according to

General

Note

CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE (4G6+(2×1,5)) 90°C

Part No. <u>111423.1000</u> SIEMENS designation* 1BA41

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G6+(2×1,5))

Number of conductors 6
Cross-section, metric 6 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 16.2 mm

Surface adhesion-free, matte
Weight 46.99 kg/100 m
Weight 314.84 Lbs/Mft
Cu-Index 33.9 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G6)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G6)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

210 pF/m

210 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Leitungen für MOTION-CONNECT 800PLUS. Siemens, MOTION-

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Warenzeichen der Siemens AG.

PUR servo cables

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G6+(2×1,5)) 1kV

Part No. <u>111423</u> SIEMENS designation* 1BA41

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G6+(2×1.5))

Number of conductors 6

PUR servo cables

Cross-section, metric 6 mm²
Cross-section AWG AWG 10
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 16.1 mm

 Outer Ø
 0.634 inch

Surface adhesion-free, matte

 Weight
 43 kg/100 m

 Weight
 288 Lbs/Mft

 Cu-Index
 33.9 kg/100 m

 Cu-Index
 228 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G6

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)
Conductor CU-wire

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G6

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.120 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.210 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables

General

Note

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G2,5+(2×1,5)) 90°C

Part No. <u>111421.1000</u> SIEMENS designation* 1BA21

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G2,5+(2×1,5))

Number of conductors 6

Cross-section, metric 2.5 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 13 mm

Surface adhesion-free, matte
Weight 27.41 kg/100 m
Weight 183.65 Lbs/Mft
Cu-Index 19.3 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G2,5)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, Class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding Conductors twisted without mechanical stress

Layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding Conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding Elements stranded together

Conductors twisted without mechanical stress

Layer pitch optimised

Overall shield Braid shield

Optical cover approx. 85 %

Technical data

Temperature range fixed -40 °C ... +90 °C

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G2,5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

185 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH TSCA

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE (4G4+(2×1,5)) 90°C

Part No. <u>111422.1000</u> SIEMENS designation* 1BA31

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G4+(2×1,5))

Number of conductors 6
Cross-section, metric 4 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 14.7 mm

Surface adhesion-free, matte
Weight 36.77 kg/100 m
Weight 246.39 Lbs/Mft
Cu-Index 25.5 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G4)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000 Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G4)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

200 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

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Warenzeichen der Siemens AG.

PUR servo cables

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G4+(2×1,5)) 1kV

Part No. <u>111422</u> SIEMENS designation* 1BA31

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G4+(2×1.5))

Number of conductors 6

PUR servo cables

Cross-section, metric 4 mm²
Cross-section AWG AWG 12
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 14.5 mm

 Outer Ø
 0.571 inch

Surface adhesion-free, matte

 Weight
 32 kg/100 m

 Weight
 214 Lbs/Mft

 Cu-Index
 25.5 kg/100 m

 Cu-Index
 171 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G4

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G4

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.115 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.200 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables

General

Note

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Identification

Type SU+ M (C) PUR SE (4G16+(2×1,5)) 90°C

Part No. <u>111425.1000</u> SIEMENS designation* 1BA61

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G16+(2×1,5))

Number of conductors 6

Cross-section, metric 16 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 23.2 mm

Surface adhesion-free, matte
Weight 98.56 kg/100 m
Weight 660.37 Lbs/Mft
Cu-Index 77.3 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G16)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G16)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

245 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE RoHS

REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR servo cables

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G25+(2×1,5)) 1kV

Part No. <u>111426</u> SIEMENS designation* 1BA25

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties • High protection against electromagnetic interferences (EMI)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G25+(2×1.5))

Number of conductors 6

PUR servo cables

Cross-section, metric 25 mm²
Cross-section AWG AWG 4
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 28.5 mm

 Outer Ø
 1.122 inch

Surface adhesion-free, matte
Weight 136.5 kg/100 m
Weight 915 Lbs/Mft
Cu-Index 113 kg/100 m
Cu-Index 761 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G25

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $10 \times D \ge 25 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G25

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.145 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.255 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables

General

Note

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements









LÜTZE SUPERFLEX®



Identification

Type SU+ M (C) PUR SE (4G10+(2×1,5)) 90°C

Part No. <u>111424.1000</u> SIEMENS designation* 1BA51

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties • High protection against electromagnetic interferences (EMI)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G10+(2×1,5))

Number of conductors 6

Cross-section, metric 10 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 19.7 mm

Surface adhesion-free, matte
Weight 69.21 kg/100 m
Weight 463.69 Lbs/Mft
Cu-Index 52.6 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G10)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G10)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

245 pF/m

Technical Data Element 2

Element construction (2×1,5)
Operating capacitance wire-wire 140 pF/m
Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

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Warenzeichen der Siemens AG.

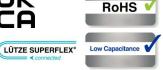
PUR servo cables

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G16+(2×1,5)) 1kV

Part No. <u>111425</u> SIEMENS designation* 1BA61

Product version

Datasheet version 04

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G16+(2×1.5))

Number of conductors 6

PUR servo cables

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 23.6 mm

 Outer Ø
 0.929 inch

Surface adhesion-free, matte

 Weight
 95.6 kg/100 m

 Weight
 641 Lbs/Mft

 Cu-Index
 77.3 kg/100 m

 Cu-Index
 519 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G16

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G16

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.140 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.245 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables

General

Note

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PUR servo cables

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G10+(2×1,5)) 1kV

Part No. <u>111424</u> SIEMENS designation* 1BA51

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G10+(2×1.5))

Number of conductors 6

PUR servo cables

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 19.5 mm

 Outer Ø
 0.768 inch

Surface adhesion-free, matte

 Weight
 68 kg/100 m

 Weight
 456 Lbs/Mft

 Cu-Index
 52.6 kg/100 m

 Cu-Index
 353 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G10

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G10

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.140 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.245 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables

General

Note

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G50+(2×1,5)) 90°C

Part No. <u>111428.1000</u> SIEMENS designation* 1BA50

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G50+(2×1,5))

Number of conductors 6

Cross-section, metric 50 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 34.5 mm

Surface adhesion-free, matte
Weight 252.64 kg/100 m
Weight 1692.65 Lbs/Mft
Cu-Index 224 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G50)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G50)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

260 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE RoHS

REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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Warenzeichen der Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G50+(2×1,5)) 1kV

Part No. <u>111428</u> SIEMENS designation* 1BA50

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G50+(2×1.5))

Number of conductors 6

PUR servo cables · C-track compatible · shielded

Cross-section, metric 50 mm²
Cross-section AWG AWG 1
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 34.5 mm

 Outer Ø
 1.358 inch

Surface adhesion-free, matte
Weight 373.7 kg/100 m
Weight 2504 Lbs/Mft
Cu-Index 224 kg/100 m
Cu-Index 1505 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G50

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables · C-track compatible · shielded

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $10 \times D \ge 25 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G50

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.152 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.260 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables · C-track compatible · shielded

General

Note

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE (4G35+(2×1,5)) 90°C

Part No. <u>111427.1000</u> SIEMENS designation* 1BA35

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties • High protection against electromagnetic interferences (EMI)

- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G35+(2×1,5))

Number of conductors 6

Cross-section, metric 35 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 31 mm

Surface adhesion-free, matte
Weight 190.32 kg/100 m
Weight 1275.17 Lbs/Mft
Cu-Index 159 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G35)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000 Test voltage type AC 4000 V Temperature range moving -25 °C ... +90 °C Temperature range fixed -40 °C ... +90 °C

PUR servo cables · C-track compatible · shielded

± 30°/m

Technical Data Element 1

Element construction (4G35)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

255 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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Warenzeichen der Siemens AG.

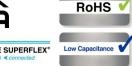
PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

SU+ M (C) PUR SE (4G35+(2×1,5)) 1kV Type

Part No. 111427 1BA35 SIEMENS designation*

Product version

04 Datasheet version

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI) **Properties**
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G35+(2×1.5))

Number of conductors 6

PUR servo cables · C-track compatible · shielded

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 31 mm

 Outer Ø
 1.22 inch

Surface adhesion-free, matte
Weight 274.6 kg/100 m
Weight 1840 Lbs/Mft
Cu-Index 159 kg/100 m
Cu-Index 1068 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G35

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare
Conductor category IEC 60228, Cla

IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • white Conductor insulation Special TPE

Stranding conductors stranded in pairs

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

PUR servo cables · C-track compatible · shielded

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $10 \times D \ge 25 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G35

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.145 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.255 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

PUR servo cables · C-track compatible · shielded

Ge	n	Δ	ra	

Note

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

* Cables for MOTION-CONNECT 800PLUS. Siemens, MOTION-CONNECT 800PLUS and Siemens article designations are registered trademarks of Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G25+(2×1,5)) 90°C

Part No. <u>111426.1000</u> SIEMENS designation* 1BA25

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G25+(2×1,5))

Number of conductors 6

Cross-section, metric 25 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 27.4 mm

Surface adhesion-free, matte
Weight 147.17 kg/100 m
Weight 986.07 Lbs/Mft
Cu-Index 113 kg/100 m

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction (4G25)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

Element shielding Braid shield

tinned copper wires

Overall construction

Overall stranding elements stranded together

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000 Test voltage type AC 4000 V Temperature range moving -25 °C ... +90 °C

Temperature range moving -25 °C ... +90 °C -40 °C ... +90 °C

PUR servo cables · C-track compatible · shielded

Torsion ± 30°/m

Technical Data Element 1

Element construction (4G25)

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

255 pF/m

Technical Data Element 2

Element construction (2×1,5)

Operating capacitance wire-wire 140 pF/m

Operating capacitance wire-shield 210 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Leitungen für MOTION-CONNECT 800PLUS. Siemens, MOTION-

CONNECT 800PLUS und Siemens Artikelbezeichnungen sind eingetragene

Warenzeichen der Siemens AG.

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Lenze and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G1,0+(2×0,5)) 1kV

Part No. <u>111439</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.0 + (2×0.5))

Number of conductors 6

Cross-section, metric 1 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 9.6 mm

Surface adhesion-free, matte
Weight 13.4 kg/100 m
Cu-Index 8 kg/100 m

Construction Element 1

Element construction 4G1

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×0.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • white Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.66 pF/m

Operating capacitance wire-shield approx.119 pF/m

Technical Data Element 2

Element construction (2×0.5)

Operating capacitance wire-wire approx.81 pF/m
Operating capacitance wire-shield approx.146 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology











Identification

Type SU+(C) PUR FB (2×2×0,18) 30V

Part No. <u>111452</u> SIEMENS designation* 1BD71

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (2×2×0.18)

Number of conductors 4

Cross-section, metric 0.18 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 5.1 mm Outer \emptyset 0.201 inch

Surface adhesion-free, matte

 Weight
 4.2 kg/100 m

 Weight
 28 Lbs/Mft

 Cu-Index
 2.2 kg/100 m

 Cu-Index
 15 Lbs/Mft

Construction Element 1

Element construction (2×2×0.18)

Conductor CU-wire tin-plated
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • red • black • orange

Conductor insulation Polyolefin

Overall construction

Overall stranding star quad stranding
Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving -25 °C ... +80 °C

Temperature range fixed -40 °C ... +80 °C

Minimum bending radius moving7.5×DMinimum bending radius fixed5×DBending cycles≥10 MioSpeed≤5 m/s

PUR feedback cables · C-track compatible · shielded

Technical Data Element 1

Element construction $(2\times2\times0.18)$ Insulation resistance at 20 °C \geq 200 M Ω ×km
Operating capacitance wire-wire approx.53 pF/m
Operating capacitance wire-shield approx.96 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

HD 22.10

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for various systems For highest requirements in drive technology











Identification

Type SU+ (C) PUR FB (3×2×AWG24/19)

 Part No.
 111437

 System
 B&R

Product version

Datasheet version 02

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (3×2×AWG24/19)

Number of conductors 6

Jacket material PUR

PUR feedback cables · C-track compatible

Jacket color green similar to RAL 6018

Outer Ø 6.6 mm

Surface adhesion-free, matte

Weight 6.9 kg/100 m Cu-Index 2.7 kg/100 m

Construction Element 1

Element construction (3×2×AWG24/19)

Conductor Cu-wire tin-plated

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • brown • green • yellow • grey • pink

Conductor insulation Special TPE

Overall construction

Overall stranding stranded pairs

conductors twisted without mechanical stress

layer pitch optimised

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant Oil resistant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Note

PUR feedback cables · C-track compatible

Operating capacitance wire-shield approx.105 pF/m **Technical Data Element 2** Insulation resistance at 20 °C ≥200 MΩ×km Certifications/Standards Certifications cURus UL style AWM 20233 Conformity CE RoHS **REACH** Burning behavior according to IEC 60332-1 DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1 UL FT1 Oil resistant according to UL 1581 UL 4d100C DIN EN 60811-404 Halogen free according to DIN EN 60754-1 IEC 60754-1 General

35/EU

CE These products are in conformity with the EU Low Voltage Directive 2014/

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements









Identification

SU+ M PUR 5G10 1KV SW Type

Part No. 111429

Product version

03 Datasheet version

Use/Application/Properties

Application

- · Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M PUR 0.6/1 kV Description

5G10 Number of conductors/cross-section Number of conductors

10 mm² Cross-section, metric Cross-section AWG AWG 8 Jacket material **PUR**

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

Outer \emptyset 18.8 mm Outer \emptyset 0.74 inch

Surface adhesion-free, matte

 Weight
 69.5 kg/100 m

 Weight
 504 Lbs/Mft

 Cu-Index
 48.8 kg/100 m

 Cu-Index
 329 Lbs/Mft

Construction Element 1

Element construction 5G10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

 $\begin{array}{lll} \mbox{Rated voltage U}_0 \mbox{/U} & 600 \mbox{/ } 1000 \mbox{ V} \\ \mbox{Rated voltage UL} & 1000 \mbox{ V} \\ \mbox{Test voltage type} & \mbox{AC 4000 V} \\ \end{array}$

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed $4 \times D$ Bending cycles ≥5 Mio

Speed ≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.72 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404 DIN EN 60754-1

IEC 60754-1

Halogen free according to

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Identification

SU+ M PUR 5G6 1kV SW Type

Part No. 111430

Product version

03 Datasheet version

Use/Application/Properties

Application

- · Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M PUR 0.6/1 kV Description

5G6 Number of conductors/cross-section Number of conductors 6 mm² Cross-section, metric Cross-section AWG AWG 10 Jacket material **PUR**

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

 Outer Ø
 15

 Outer Ø
 0.591

Surface adhesion-free, matte

 Weight
 37.8 kg/100 m

 Weight
 269 Lbs/Mft

 Cu-Index
 29.2 kg/100 m

 Cu-Index
 194 Lbs/Mft

Construction Element 1

Element construction 5G6

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free

Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed4×DBending cycles≥5 MioSpeed≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire	approx.74 pF/m
Certifications/Standards	
Certifications	cURus
UL style	AWM 21223
Conformity	CE RoHS REACH TSCA
Burning behavior according to	VDE 0482-332-1-2 DIN EN 60332-1-2 IEC 60332-1 UL 1581

Oil resistant according to

UL 4d100C VDE 0282 T 10 DIN EN 60811-404 DIN EN 60754-1

Halogen free according to

IEC 60754-1

VW-1, FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology















Identification

SU+(C) PUR FB (2×0,5+3×(2×0,14)+4×0,14) 30V Type

Part No. 111458 SIEMENS designation* 1BD41

Product version

00 Datasheet version

Use/Application/Properties

Application

- · Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- **Properties** • High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

 $(2\times0.5+3\times(2\times0.14)+4\times0.14)$ Number of conductors/cross-section

Number of conductors 12 0.5 mm² Cross-section, metric

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 8.6 mm Outer \emptyset 0.339 inch

Surface adhesion-free, matte
Weight 12.2 kg/100 m
Weight 82 Lbs/Mft

Cu-Index
Cu-Index
Cu-Index
41 Lbs/Mft

Construction Element 1

Element construction 2×0.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown/blue • brown/red

Conductor insulation Polyolefin

Stranding strands braided together

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 3×(2×0.14)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking green • yellow • black • brown • red • orange

Conductor insulation TPE-E

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Element shielding Spiral shield

optical cover approx. 90% tinned copper wires

Construction Element 3

Element construction 4×0.14

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

DIN EN 13602

VDE 0295
• white/black

mechanical stress

PUR feedback cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket Special TPE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant
Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V

Test voltage type AC 500 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction 2×0.5

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.68 pF/m

Operating capacitance wire-shield approx.122 pF/m

Technical Data Element 2

Element construction 3×(2×0.14)

Operating capacitance wire-wire approx.147 pF/m

Operating capacitance wire-shield approx.270 pF/m

Technical Data Element 3

Element construction 4×0.14

PUR feedback cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

HD 22.10

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK **Encoder cables for Siemens and other systems** For highest requirements in drive technology















Identification

SU+(C) PUR FB (4×0,5+4×2×0,38) 30V Type

Part No. 111456 SIEMENS designation* 1BD21

Product version

00 Datasheet version

Use/Application/Properties

Application

- · Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- · Compatible with all major drag chain brands
- · Compliant with NFPA 79, Article 12.9

Properties High protection against electromagnetic interferences (EMI)

- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- UV-resistant
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Talc free and silicone free

Construction

SUPERFLEX® PLUS (C) PUR FEEDBACK Description

 $(4 \times 0.5 + 4 \times 2 \times 0.38)$ Number of conductors/cross-section

PUR feedback cables · C-track compatible · shielded

Number of conductors 12

Cross-section, metric 0.5 mm²

Jacket material PUR

Jacket color green similar to RAL 6018

 Outer Ø
 9.4 mm

 Outer Ø
 0.37 inch

Surface adhesion-free, matte

 Weight
 13.2 kg/100 m

 Weight
 89 Lbs/Mft

 Cu-Index
 8.6 kg/100 m

 Cu-Index
 58 Lbs/Mft

Construction Element 1

Element construction 4×0.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white/blue • white/black • white/red • white/yellow

Conductor insulation Polyolefin

Stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 4×2×0.38
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • brown • violet • blue • yellow • green • red • orange

Conductor insulation Polyolefin

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

PUR feedback cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4×0.5

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.65 pF/m

Operating capacitance wire-shield approx.117 pF/m

Technical Data Element 2

Element construction 4×2×0.38

Operating capacitance wire-wire approx.56 pF/m

Operating capacitance wire-shield approx.101 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

PUR feedback cables · C-track compatible · shielded

General	
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Note

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

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PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology













Identification

Type SU+(C) PUR FB (2×0,5+4×0,23+3×(2×0,14)+4×0,14) 30V

Part No. <u>111457</u> SIEMENS designation* 1BD51

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section $(2\times0.5+4\times0.23+3\times(2\times0.14)+4\times0.14)$

Number of conductors 16

Cross-section, metric 0.5 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 9.8 mm Outer \emptyset 0.386 inch

Surface adhesion-free, matte

 Weight
 15.3 kg/100 m

 Weight
 103 Lbs/Mft

 Cu-Index
 9.3 kg/100 m

 Cu-Index
 62 Lbs/Mft

Construction Element 1

Element construction 2×0.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown/blue • brown/red

Conductor insulation Polyolefin

Stranding strands braided together

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 4×0.23

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking green/red • green/black • brown/yellow • brown/grey

Conductor insulation Polyolefin

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 3

Element construction 3×(2×0.14)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

DIN EN 13602

Superfinely stranded DIN VDE 0295

Conductor marking yellow • green • black • brown • red • orange

Conductor insulation TPE-E

mechanical stress

PUR feedback cables · C-track compatible · shielded

Construction Element 4

Element construction 4×0.14

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

DIN EN 13602

Superfinely stranded DIN VDE 0295

Conductor marking blue • grey • white/yellow • white/black

Conductor insulation Polyolefin

Stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket Special TPE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 2×0.5

PUR feedback cables · C-track compatible · shielded

Technical Data Element 2	
Element construction	4×0.23
Operating capacitance wire-wire	approx.57 pF/m
Operating capacitance wire-shield	approx.103 pF/m
Technical Data Element 3	
Element construction	3×(2×0.14)
Operating capacitance wire-wire	approx.147 pF/m
Operating capacitance wire-shield	approx.270 pF/m
Technical Data Element 4	
Element construction	4×0.14
Operating capacitance wire-wire	approx.53 pF/m
Operating capacitance wire-shield	approx.96 pF/m
Certifications/Standards	
Certifications	cURus AWM II A/B
UL style	AWM 20236
Conformity	CE RoHS REACH
Burning behavior according to	IEC 60332-1 DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1 UL FT1
Oil resistant according to	UL 1581 HD 22.10
Halogen free according to	DIN EN 60754-1 IEC 60754-1
General	

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology















Identification

SU+(C) PUR FB (12×0,23) 30V Type

Part No. 111454 SIEMENS designation* 1BD81

Product version

00 Datasheet version

Use/Application/Properties

Application

- · Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- **Properties** • High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (12×0.23)

Number of conductors 12

0.23 mm² Cross-section, metric

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 7.4 mm Outer \emptyset 0.291 inch

Surface adhesion-free, matte

 Weight
 8.5 kg/100 m

 Weight
 57 Lbs/Mft

 Cu-Index
 4.7 kg/100 m

 Cu-Index
 32 Lbs/Mft

Construction Element 1

Element construction (12×0.23)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • brown • red • orange • yellow • green • blue • violet • grey • white •

white/black • white/brown

Conductor insulation Polyolefin

Overall construction

Overall wrapping

Overall stranding layered construction

conductors twisted without mechanical stress

layer pitch optimised Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

PUR feedback cables · C-track compatible · shielded

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Element construction (12×0.23)
Insulation resistance at 20 °C \geq 200 M Ω ×km
Operating capacitance wire-wire approx.53 pF/m
Operating capacitance wire-shield approx.96 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

HD 22.10

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology











Identification

Type SU+(C) PUR FB (4×2×0,18) 30V

Part No. <u>111453</u> SIEMENS designation* 1BD61

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (4×2×0.18)

Number of conductors 8

Cross-section, metric 0.18 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 6.6 mm Outer \emptyset 0.26 inch

Surface adhesion-free, matte

 Weight
 7.6 kg/100 m

 Weight
 51 Lbs/Mft

 Cu-Index
 3.2 kg/100 m

 Cu-Index
 22 Lbs/Mft

Construction Element 1

Element construction (4×2×0.18)

Conductor CU-wire tin-plated
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking violet • blue • green • yellow • red • orange • brown • black

Conductor insulation Polyolefin

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding stranded pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving -25 °C ... +80 °C

PUR feedback cables · C-track compatible · shielded

Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction (4×2×0.18)
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire approx.78 pF/m
Operating capacitance wire-shield approx.140 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

HD 22.10

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G2,5) 90°C

Part No. <u>111461.1000</u> SIEMENS designation* 1BB21

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G2,5)

Number of conductors 4

Cross-section, metric 2.5 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 10.8 mm

Surface adhesion-free, matte
Weight 19.09 kg/100 m
Weight 127.91 Lbs/Mft
Cu-Index 13 kg/100 m

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G2,5)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, Class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding Conductors twisted without mechanical stress

Layer pitch optimised

Overall construction

Overall stranding Conductors layered construction

Conductors twisted without mechanical stress

Layer pitch optimised

Overall shield Braid shield

Optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving
7.5×D

Minimum bending radius fixed
5×D

Bending cycles
≥10 Mio

Speed
5 m/s

Acceleration
50 m/s²

Torsion
± 30°/m

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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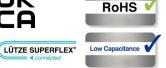
PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements









Identification

SU+ M (C) PUR SE (4G2,5) 1kV Type

Part No. 111461 SIEMENS designation* 1BB21

Product version

04 Datasheet version

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5)4

Number of conductors

PUR servo cables · C-track compatible · shielded

Cross-section, metric 2.5 mm²
Cross-section AWG AWG 14
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 10.8 mm

 Outer Ø
 0.425 inch

Surface adhesion-free, matte

 Weight
 17.3 kg/100 m

 Weight
 115.9 Lbs/Mft

 Cu-Index
 13 kg/100 m

 Cu-Index
 80 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G2.5)

Conductor Cu-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration \leq 50 m/s² Torsion \pm 30°/m

Technical Data Element 1

Element construction (4G2.5)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.105 pF/m
Operating capacitance wire-shield approx.185 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G1,5) 90°C

Part No. <u>111460.1000</u> SIEMENS designation* 1BB11

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G1,5)

Number of conductors 4

Cross-section, metric 1.5 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 8.7 mm

Surface adhesion-free, matte
Weight 12.26 kg/100 m
Weight 82.12 Lbs/Mft
Cu-Index 8.3 kg/100 m

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G1,5)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U₀/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2 Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209
Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/ 35/EU

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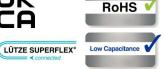
PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

SU+ M (C) PUR SE (4G1,5) 1kV Type

Part No. 111460 SIEMENS designation* 1BB11

Product version

04 Datasheet version

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI) **Properties**
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5)4

Number of conductors

PUR servo cables · C-track compatible · shielded

Cross-section, metric 1.5 mm²
Cross-section AWG AWG 16
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 8.6 mm

 Outer Ø
 0.339 inch

Surface adhesion-free, matte

 Weight
 11.7 kg/100 m

 Weight
 78.4 Lbs/Mft

 Cu-Index
 8.3 kg/100 m

 Cu-Index
 51 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Cla

IEC 60228, Class 6
Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G1.5)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.80 pF/m
Operating capacitance wire-shield approx.140 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology















Identification

SU+(C) PUR FB (2×(0,5)+3×(2×0,14) 30V Type

Part No. 111459 SIEMENS designation* 1BD31

Product version

00 Datasheet version

Use/Application/Properties

Application

- · Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- **Properties** • High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

 $(2\times(0.5)+3\times(2\times0.14))$ Number of conductors/cross-section

Number of conductors 8

0.5 mm² Cross-section, metric

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 8.7 mm Outer \emptyset 0.343 inch

Surface adhesion-free, matte

 Weight
 12.8 kg/100 m

 Weight
 86 Lbs/Mft

 Cu-Index
 6.9 kg/100 m

 Cu-Index
 46 Lbs/Mft

Construction Element 1

Element construction 2×(0.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking red • black
Conductor insulation TPE-E

Stranding conductors twisted without mechanical stress

layer pitch optimised

Element shielding Spiral shield

optical cover approx. 90% Tinned copper wires

Construction Element 2

Element construction 3×(2×0.14)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking yellow • green • red • orange • brown • black

Conductor insulation TPE-E

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Element shielding Spiral shield

optical cover approx. 90% tinned copper wires

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

PUR feedback cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V
Test voltage type AC 500 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 2×(0.5)

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-shield approx.530 pF/m

Technical Data Element 2

Element construction 3×(2×0.14)

Operating capacitance wire-wire approx.147 pF/m

Operating capacitance wire-shield approx.270 pF/m

Certifications/Standards

Certifications cURus

AWM II A/B

UL style AWM 20236

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Note

PUR feedback cables · C-track compatible · shielded

General			

CE These products are in conformity with the EU Low Voltage Directive 2014/ $35\mbox{/EU}$

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE (4G6) 90°C

Part No. <u>111463.1000</u> SIEMENS designation* 1BB41

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G6)

Number of conductors 4

Cross-section, metric 6 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 14.2 mm

Surface adhesion-free, matte
Weight 37.47 kg/100 m
Weight 251.02 Lbs/Mft
Cu-Index 27.5 kg/100 m

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G6)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2 Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 758

UL 1581 VW-1 CSA FT 1

UL C22.2 No. 210.2

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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Warenzeichen der Siemens AG.

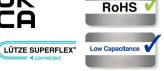
PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G10) 1kV

Part No. <u>111464</u> SIEMENS designation* 1BB51

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G10)
Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 17.6 mm

 Outer Ø
 0.693 inch

Surface adhesion-free, matte

 Weight
 54.9 kg/100 m

 Weight
 367.8 Lbs/Mft

 Cu-Index
 45 kg/100 m

 Cu-Index
 302 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G10)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G10)
Insulation resistance at 20 °C \geq 500 M Ω ×km
Operating capacitance wire-wire approx.140 pF/m

Operating capacitance wire-shield approx.245 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE (4G4) 90°C

Part No. <u>111462.1000</u> SIEMENS designation* 1BB31

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G4)
Number of conductors 4
Cross-section, metric 4 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 12.2 mm

Surface adhesion-free, matte
Weight 27.22 kg/100 m
Cu-Index 19.3 kg/100 m

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G4)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed 5 m/s

Acceleration 50 m/s²

Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction (4G4)

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209
Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/ 35/EU

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CONNECT 800PLUS und Siemens Artikelbezeichnungen sind eingetragene

Warenzeichen der Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G6) 1kV

Part No. <u>111463</u> SIEMENS designation* 1BB41

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties • High protection against electromagnetic interferences (EMI)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G6) Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 6 mm²
Cross-section AWG AWG 10
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 14 mm

 Outer Ø
 0.551 inch

Surface adhesion-free, matte

 Weight
 36.5 kg/100 m

 Weight
 244.6 Lbs/Mft

 Cu-Index
 27.5 kg/100 m

 Cu-Index
 194 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G6)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G6)

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.120 pF/m

Operating capacitance wire-shield approx.210 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G4) 1kV

Part No. <u>111462</u> SIEMENS designation* 1BB31

Product version

Datasheet version 04

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G4) Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 4 mm²
Cross-section AWG AWG 12
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 12.2 mm

 Outer Ø
 0.48 inch

Surface adhesion-free, matte

 Weight
 24.5 kg/100 m

 Weight
 164.2 Lbs/Mft

 Cu-Index
 19.3 kg/100 m

 Cu-Index
 126 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G4)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G4)

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.115 pF/m

Operating capacitance wire-shield approx.200 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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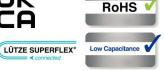
PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Type SU+ M (C) PUR SE (4G35) 1kV

Part No. <u>111467</u> SIEMENS designation* 1BB35

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G35)

Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 35 mm²
Cross-section AWG AWG 2
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 28.8 mm

 Outer Ø
 1.114 inch

Surface adhesion-free, matte
Weight 169.2 kg/100 m
Weight 1133.6 Lbs/Mft
Cu-Index 152.4 kg/100 m
Cu-Index 1012 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G35)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G35)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.145 pF/m
Operating capacitance wire-shield approx.255 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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Warenzeichen der Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE (4G16) 90°C

Part No. <u>111465.1000</u> SIEMENS designation* 1BB61

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G16)

Number of conductors 4

Cross-section, metric 16 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 21.2 mm

Surface adhesion-free, matte
Weight 89.77 kg/100 m
Weight 601.44 Lbs/Mft
Cu-Index 72 kg/100 m

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G16)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2 Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209
Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/ 35/EU

 * Leitungen für MOTION-CONNECT 800PLUS. Siemens, MOTION-

CONNECT 800PLUS und Siemens Artikelbezeichnungen sind eingetragene

Warenzeichen der Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements









Identification

Type SU+ M (C) PUR SE (4G25) 1kV

Part No. <u>111466</u> SIEMENS designation* 1BB25

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High active and passive interference resistance (EMC)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G25)

Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 25 mm²
Cross-section AWG AWG 4
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 25 mm

 Outer Ø
 0.984 inch

Surface adhesion-free, matte
Weight 129.9 kg/100 m
Weight 870.3 Lbs/Mft
Cu-Index 108 kg/100 m
Cu-Index 737 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G25)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G25)

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.145 pF/m

Operating capacitance wire-shield approx.255 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

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Warenzeichen der Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G10) 90°C

Part No. <u>111464.1000</u> SIEMENS designation* 1BB51

Product version

Datasheet version 00

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G10)

Number of conductors 4

Cross-section, metric 10 mm²

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer Ø 17.6 mm

Surface adhesion-free, matte
Weight 58.17 kg/100 m
Weight 389.71 Lbs/Mft
Cu-Index 45 kg/100 m

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G10)

Conductor CU-wire bare

Conductor category Superfinely stranded DIN VDE 0295

DIN EN 60228, class 6

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding conductors layered construction

conductors twisted without mechanical stress

layer pitch optimised

Overall shield Braid shield

optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2 Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209
Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/ 35/EU

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Warenzeichen der Siemens AG.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements















Identification

SU+ M (C) PUR SE (4G16) 1kV Type

Part No. 111465 SIEMENS designation* 1BB61

Product version

04 Datasheet version

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G16) Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 21.2 mm

 Outer Ø
 0.835 inch

Surface adhesion-free, matte

 Weight
 84.9 kg/100 m

 Weight
 568.8 Lbs/Mft

 Cu-Index
 72 kg/100 m

 Cu-Index
 476 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G16)

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G16)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.140 pF/m
Operating capacitance wire-shield approx.245 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

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PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Allen-Bradley and other systems For highest requirements in drive technology







LÜTZE SUPERFLEX®





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Туре	SU+ (C)PUR FB(2×AWG16+2×AWG22+6×2×AWG26)

Part No. 111489.2000

PIO	 version

Identification

00 Datasheet version

Use/Application/Properties

Application	Incremental encoder cable, termination cable for tacho sensor, brake
	sensor, speed sensor

- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

High protection against electromagnetic interferences (EMI)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Properties

SUPERFLEX® PLUS (C) PUR FEEDBACK Description Number of conductors/cross-section (2×AWG16+2×AWG22+6×2×AWG26)

Number of conductors 16 Cross-section, metric 1.5 mm² Cross-section AWG **AWG 16**

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 10.8 mm Outer \emptyset 0.425 inch

Surface adhesion-free, matte
Weight 15.12 kg/100 m
Weight 101.32 Lbs/Mft
Cu-Index 10.5 kg/100 m
Cu-Index 70 Lbs/Mft

Construction Element 1

Element construction 2×AWG16
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking grey • white/grey
Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 2

Element construction 2×AWG22
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking orange • white/orange

Conductor insulation PP

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 3

Element construction 6×2×AWG26 Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking white/black • black • white/red • red • white/green • green • white/blue • blue •

white/brown • brown • white/yellow • yellow

Conductor insulation PP

Stranding conductors stranded in pairs

layer pitch optimised

mechanical stress

mechanical stress

PUR feedback cables · C-track compatible · shielded

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed $5\times D$ Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion $±30^{\circ}/m$

Technical Data Element 1

Element construction $2\times AWG16$ Insulation resistance at 20 °C $\geq 200 \text{ M}\Omega\times\text{km}$ Operating capacitance wire-wire 75 pF/mOperating capacitance wire-shield 135 pF/m

Technical Data Element 2

Element construction $2\times AWG22$ Insulation resistance at 20 °C $\geq 200 \text{ M}\Omega\times\text{km}$ Operating capacitance wire-wire 60 pF/m Operating capacitance wire-shield 110 pF/m

Technical Data Element 3

Element construction $6\times2\times AWG26$ Insulation resistance 20 °C $\geq 200 \text{ M}\Omega\times km$ Operating capacitance wire-wire $\sim 50 \text{ pF/m}$ Operating capacitance wire-shield $\sim 90 \text{ pF/m}$

PUR feedback cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482 322-1-2

DIN EN 60332-1-2

IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 1581

4 days at 100 °C DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Allen-Bradley and other systems For highest requirements in drive technology







LÜTZE SUPERFLEX®



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Identification

Type SU+ (C) PUR FB (5×2×AWG22) 1kV

Part No. <u>111488.2000</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- · Feedback cables for Allen-Bradley drives
- Compatible with all major drag chain brands
- · Compliant with NFPA 79, Article 12.9

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- UV-resistant
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Talc free and silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (5×2×AWG22)

PUR feedback cables · C-track compatible · shielded

Number of conductors 10

Cross-section, metric 0.34 mm²
Cross-section AWG AWG 22
Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 9.2 mm Outer \emptyset 0.362 inch

Surface adhesion-free, matte
Weight 10.52 kg/100 m
Weight 70.5 Lbs/Mft
Cu-Index 5.9 kg/100 m
Cu-Index 39 Lbs/Mft

Construction Element 1

Element construction (5×2×AWG22) Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white/black • black • white/red • red • white/green • green • white/grey • grey •

white/orange • orange

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Overall construction

Overall stranding stranded pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

PUR feedback cables · C-track compatible · shielded

Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction $(5\times2\times AWG22)$ Insulation resistance at 20 °C $\geq 200 \text{ M}\Omega\times km$ Conductor resistance $55 \Omega/km$ Operating capacitance wire-wire 60 pF/mOperating capacitance wire-shield 110 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE RoHS

REACH

Burning behavior according to VDE 0482 322-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 1581

4 days at 100 °C DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Allen-Bradley and other systems For highest requirements in drive technology











Identification

Type SU+ (C)PUR FB(2×AWG16+2×AWG22+6×2×AWG26)

Part No. <u>111489</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (2×AWG16+2×AWG22+6×2×AWG26)

Number of conductors 16
Cross-section, metric 1.5 mm²
Cross-section AWG AWG 16

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

 Outer Ø
 10.8 mm

 Outer Ø
 0.425 inch

Surface adhesion-free, matte

 Weight
 18 kg/100 m

 Weight
 121 Lbs/Mft

 Cu-Index
 12 kg/100 m

 Cu-Index
 81 Lbs/Mft

Construction Element 1

Element construction 2×AWG16
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking grey • white/grey
Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 2

Element construction 2×AWG22
Conductor CU-wire bare
Conductor category IEC 60228, Cl

IEC 60228, Class 6
Superfinely stranded DIN VDE 0295

1 1 1 1

Conductor marking orange • white/orange

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 3

Element construction 6×2×AWG26 Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking white/black • black • white/red • red • white/green • green • white/blue • blue •

white/brown • brown • white/yellow • yellow

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

mechanical stress

PUR feedback cables · C-track compatible · shielded

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion \pm 30°/m

Technical Data Element 1

Element construction 2×AWG16
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire 75 pF/m
Operating capacitance wire-shield 135 pF/m

Technical Data Element 2

Element construction $2\times AWG22$ Insulation resistance at 20 °C $\geq 200 \text{ M}\Omega\times\text{km}$ Operating capacitance wire-wire 60 pF/m Operating capacitance wire-shield 110 pF/m

Technical Data Element 3

Element construction $6\times2\times AWG26$ Insulation resistance 20 °C $\geq 200 \text{ M}\Omega\times km$ Operating capacitance wire-wire $\sim 50 \text{ pF/m}$ Operating capacitance wire-shield $\sim 90 \text{ pF/m}$

PUR feedback cables · C-track compatible · shielded

Conformity CE

RoHS

REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

UL 1581

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G50) 1kV

Part No. <u>111468</u> SIEMENS designation* 1BB50

Product version

Datasheet version 04

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G50) Number of conductors 4

PUR servo cables · C-track compatible · shielded

Cross-section, metric 50 mm²
Cross-section AWG AWG 2
Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 33.9 mm

 Outer Ø
 1.335 inch

Surface adhesion-free, matte
Weight 244.2 kg/100 m
Weight 1636.1 Lbs/Mft
Cu-Index 216.8 kg/100 m
Cu-Index 1427 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G50)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Overall construction

Overall stranding conductors twisted without mechanical stress

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving -25 °C ... +80 °C

PUR servo cables · C-track compatible · shielded

Acceleration $\leq 50 \text{ m/s}^2$ Torsion $\pm 30^{\circ}/\text{m}$

Technical Data Element 1

Element construction (4G50)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.152 pF/m
Operating capacitance wire-shield approx.260 pF/m

Technical Data Element 2

Insulation resistance at 20 °C 1000 MΩ×km

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1

UL 1581 part 1080 VW-1

CSA FT 1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Leitungen für MOTION-CONNECT 800PLUS. Siemens, MOTION-

CONNECT 800PLUS und Siemens Artikelbezeichnungen sind eingetragene

Warenzeichen der Siemens AG.

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Allen-Bradley and other systems For highest requirements in drive technology











Identification

Type SU+ (C) PUR FB (5×2×AWG22) 1kV

Part No. <u>111488</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- · Feedback cables for Allen-Bradley drives
- Compatible with all major drag chain brands
- · Compliant with NFPA 79, Article 12.9
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - UV-resistant
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Talc free and silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (5×2×AWG22)

PUR feedback cables · C-track compatible · shielded

Number of conductors 10

Cross-section, metric 0.34 mm²
Cross-section AWG AWG 22
Jacket material PUR

Jacket color green similar to RAL 6018

Outer \emptyset 9.2 mm Outer \emptyset 0.362 inch

Surface adhesion-free, matte
Weight 10.7 kg/100 m
Weight 72 Lbs/Mft
Cu-Index 5.4 kg/100 m
Cu-Index 36 Lbs/Mft

Construction Element 1

Element construction (5×2×AWG22)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking white/black • black • white/red • red • white/green • green • white/grey • grey •

white/orange • orange

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Overall construction

Overall stranding stranded pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

PUR feedback cables · C-track compatible · shielded

Bending cycles	≥10 Mio
Speed	≤5 m/s
Acceleration	≤50 m/s²
Torsion	± 30°/m

Technical Data Element 1

Element construction (5×2×AWG22)
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire 60 pF/m
Operating capacitance wire-shield 110 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

UL 1581

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements











Type SU+ M PUR 5G4 1KV SW

Part No. <u>111545</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 5G4
Number of conductors 5
Cross-section, metric 4 mm²
Cross-section AWG AWG 12
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

Outer \emptyset 13 mm Outer \emptyset 0.512 inch

Surface adhesion-free, matte

 Weight
 26.8 kg/100 m

 Weight
 192 Lbs/Mft

 Cu-Index
 19.4 kg/100 m

 Cu-Index
 130 Lbs/Mft

Construction Element 1

Element construction 5G4

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

grease-resistant

petrol-resistant (alcohol-free) kerosene-resistant

Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed $4\times D$ Bending cycles ≥5 Mio
Speed ≤4 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.69 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223
Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404 DIN EN 60754-1

IEC 60754-1

Halogen free according to

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR motor cables · C-track compatible · unshielded

LUTZE SUPERFLEX® PLUS M PUR 0.6/1 kV Motor/energy supply cable For highest requirements









Identification

Type SU+ M PUR 5G16 1KV SW

Part No. <u>111548</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Motor connection cable, specifically for machine and device construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments, machines and plants

Properties

- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M PUR 0.6/1 kV

Number of conductors/cross-section 5G16 Number of conductors 5

Cross-section, metric 16 mm²
Cross-section AWG AWG 6
Jacket material PUR

Jacket color black similar to RAL 9005

PUR motor cables · C-track compatible · unshielded

 Outer Ø
 24.2 mm

 Outer Ø
 0.953 inch

Surface adhesion-free, matte
Weight 112.6 kg/100 m
Weight 784 Lbs/Mft
Cu-Index 77.5 kg/100 m
Cu-Index 516 Lbs/Mft

Construction Element 1

Element construction 5G16

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • green/yellow

Conductor insulation Special TPE

Stranding conductors layered construction

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material
Jacket characteristics Flame-retardant
Oil resistant
grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed4×DBending cycles≥5 MioSpeed≤2 m/s

PUR motor cables · C-track compatible · unshielded

Operating capacitance wire-wire approx.72 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1 UL 1581 VW-1, FT1

Oil resistant according to UL 4d100C

VDE 0282 T 10 DIN EN 60811-404 DIN EN 60754-1

IEC 60754-1

Halogen free according to

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Bosch-Rexroth and other systems For highest requirements in drive technology















Identification

Type SU+ (C) PUR FB (4×1,0+4×2×0,14+(4×0,14))

Part No. <u>111495</u> INK Description* INK-0532*

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (4×1.0+4×2×0.14+(4×0.14))

Number of conductors 16 Cross-section, metric 1 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 9.5 mm Outer \emptyset 0.374 inch

Surface adhesion-free, matte

 Weight
 13.7 kg/100 m

 Weight
 92 Lbs/Mft

 Cu-Index
 9.6 kg/100 m

 Cu-Index
 65 Lbs/Mft

Construction Element 1

Element construction 4×1.0

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking blue • white • white/green • brown/black

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 4×2×0.14

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking red • black • green • brown • grey • pink • yellow • violet

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Construction Element 3

Element construction (4×0.14)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black/green • black/yellow • black/blue • black/red

Conductor insulation Special TPE

mechanical stress

PUR feedback cables · C-track compatible · shielded

Overall construction

Overall stranding layered construction around core

elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant
Oil resistant

grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion \pm 30°/m

Technical Data Element 1

Element construction 4×1.0

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.51 pF/m

Operating capacitance wire-shield approx.92 pF/m

Technical Data Element 2

Element construction 4×2×0.14
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire approx.51 pF/m
Operating capacitance wire-shield approx.92 pF/m

PUR feedback cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 20233

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Lenze and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G1,5+(2×0,5)) 1kV

Part No. <u>111536</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5+(2×0.5))

Number of conductors 6

Cross-section, metric 1.5 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 11 mm

Surface adhesion-free, matte

Weight 19.2 kg/100 m Cu-Index 10.6 kg/100 m

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×0.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • white Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

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16	L II		La	u	аца

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.67 pF/m

Operating capacitance wire-shield approx.121 pF/m

Technical Data Element 2

Element construction (2×0.5)

Operating capacitance wire-wire approx.81 pF/m
Operating capacitance wire-shield approx.146 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for various systems For highest requirements in drive technology











Identification

Type SU+ (C) PUR FB (5×0,5+2×2×0,18)

Part No. <u>111491</u> System Fanuc

Product version

Datasheet version 02

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (5×0,5+2×2×0,18)

Number of conductors 9

Cross-section, metric 0.5 mm²

PUR feedback cables · C-track compatible

Jacket material PUR

Jacket color green similar to RAL 6018

Outer Ø 7.7 mm

Surface adhesion-free, matte

Weight 9.3 kg/100 m Cu-Index 6.3 kg/100 m

Construction Element 1

Element construction 5×0.5

Conductor CU-wire tin-plated
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking green • yellow • grey • pink • blue

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 2

Element construction 2×2×0.18

Conductor CU-wire tin-plated
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

IEC 60228, Class 6

Conductor marking white • brown • black • violet

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

PUR feedback cables · C-track compatible

AC 2000 V Test voltage type

-25 °C ... +80 °C Temperature range moving -40 °C ... +80 °C Temperature range fixed

Minimum bending radius moving 7.5×D Minimum bending radius fixed 5×D Bending cycles ≥10 Mio Speed ≤5 m/s ≤50 m/s² Acceleration Torsion ± 30°/m

Technical Data Element 1

Element construction 5×0.5

Insulation resistance at 20 °C ≥200 MΩ×km Operating capacitance wire-wire approx.61 pF/m Operating capacitance wire-shield approx.110 pF/m

Technical Data Element 2

Element construction 2×2×0.18 Insulation resistance at 20 °C ≥200 MΩ×km Operating capacitance wire-wire approx.56 pF/m Operating capacitance wire-shield approx.101 pF/m

Certifications/Standards

Certifications cURus UL style AWM 20233

CE

RoHS

REACH

Burning behavior according to IEC 60332-1

> DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Conformity

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for SEW and other systems For highest standards











Identification

Type SU+ M (C) PUR SE (4G6+(3×1,5)) 1kV

Part No. <u>111563</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G6+(3×1.5))

Number of conductors 7

Cross-section, metric 6 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 17 mm

Weight 52.9 kg/100 m Cu-Index 34.4 kg/100 m

Construction Element 1

Element construction 4G6

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (3×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

Technical data

 $\begin{array}{lll} \mbox{Rated voltage U}_0 \mbox{/U} & \mbox{600/100 V} \\ \mbox{Rated voltage UL} & \mbox{1000 V} \\ \mbox{Test voltage type} & \mbox{AC 4000 V} \end{array}$

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G6

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.84 pF/m

Operating capacitance wire-shield approx.151 pF/m

Technical Data Element 2

Element construction (3×1.5)

Operating capacitance wire-wire approx.65 pF/m
Operating capacitance wire-shield approx.117 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404 Halogen free according to DIN EN 60754-1

IEC 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for SEW and other systems For highest standards











Identification

SU+ M (C) PUR SE (4G10+(3×1,5)) 1kV Type

Part No. 111564

Product version

02 Datasheet version

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Description

(4G10+(3×1.5)) Number of conductors/cross-section

Number of conductors

10 mm² Cross-section, metric

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 20.5 mm

 Weight
 73 kg/100 m

 Cu-Index
 52.2 kg/100 m

Construction Element 1

Element construction 4G10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (3×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

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Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G10

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.81 pF/m

Operating capacitance wire-shield approx.146 pF/m

Technical Data Element 2

Element construction (3×1.5)

Operating capacitance wire-wire approx.65 pF/m
Operating capacitance wire-shield approx.117 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to

DIN EN 60811-404

Halogen free according to

DIN EN 60754-1

IEC 60754-1

General

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for SEW and other systems For highest standards











Identification

Type SU+ M (C) PUR SE (4G4+(3×1,0)) 1kV

Part No. <u>111562</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G4+(3×1.0))

Number of conductors 7

Cross-section, metric 4 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 14.7 mm

 Weight
 39.6 kg/100 m

 Cu-Index
 25.6 kg/100 m

Construction Element 1

Element construction 4G4

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (3×1.0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

Technical data

Rated voltage U₀/U 600/100 V Rated voltage UL 1000 V AC 4000 V Test voltage type

-25 °C ... +80 °C Temperature range moving -40 °C ... +80 °C Temperature range fixed

7.5×D Minimum bending radius moving Minimum bending radius fixed 5×D Bending cycles ≥10 Mio Speed ≤5 m/s Acceleration ≤50 m/s² Torsion ± 30°/m

Technical Data Element 1

Element construction 4G4

Insulation resistance at 20 °C ≥1000 MΩ×km Operating capacitance wire-wire approx.78 pF/m Operating capacitance wire-shield approx.140 pF/m

Technical Data Element 2

Element construction (3×1.0)

approx.63 pF/m Operating capacitance wire-wire Operating capacitance wire-shield approx.113 pF/m

Certifications/Standards

Certifications cURus UL style AWM 21223

CE Conformity

RoHS **REACH**

Burning behavior according to IEC 60332-1

> DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404 Halogen free according to DIN EN 60754-1

IEC 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for SEW and other systems For highest standards













Identification

SU+ M (C) PUR SE (4G1,5+(3×1,0)) 1kV Type

Part No. 111560

Product version

02 Datasheet version

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Description

(4G1.5+(3×1.0)) Number of conductors/cross-section

Number of conductors

1.5 mm² Cross-section, metric

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 11.8 mm

 Weight
 24.4 kg/100 m

 Cu-Index
 13.9 kg/100 m

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (3×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Element shielding Braid shield

Construction Element 3

Conductor insulation Polyolefin

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

PVC servo cables · C-track compatible · shielded

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Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed 5×D
Bending cycles ≥10 Mio
Speed ≤5 m/s
Acceleration ≤50 m/s²
Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.67 pF/m

Operating capacitance wire-shield approx.121 pF/m

Technical Data Element 2

Element construction (3×1)

Operating capacitance wire-wire approx.63 pF/m
Operating capacitance wire-shield approx.113 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404 Halogen free according to DIN EN 60754-1

IEC 60754-1

General

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for SEW and other systems For highest standards











Identification

Type SU+ M (C) PUR SE (4G2,5+(3×1,0)) 1kV

Part No. <u>111561</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5+(3×1.0))

Number of conductors 7

Cross-section, metric 2.5 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

 Outer Ø
 13.7 mm

 Weight
 30.6 kg/100 m

 Cu-Index
 18.3 kg/100 m

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (3×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

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Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.71 pF/m

Operating capacitance wire-shield approx.128 pF/m

Technical Data Element 2

Element construction (3×1)

Operating capacitance wire-wire approx.63 pF/m
Operating capacitance wire-shield approx.113 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404 Halogen free according to DIN EN 60754-1

IEC 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards











Identification

Type SU+ M (C) PUR HY (4G4+(2×1,0)+(2×AWG22))

Part No. <u>111633</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties • High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV

Number of conductors/cross-section (4G4+(2×1.0)+(2×AWG22))

Number of conductors 8

Cross-section, metric 4 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

Outer \emptyset 16.2 mm Outer \emptyset 0.638 inch

Surface matte, adhesion-free

Weight 40.8 kg/100 m Cu-Index 28.9 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G4

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×1.0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs
Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G4

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×1.0)
Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards









Identification

Type SU+ M (C) PUR HY (4G6+(2×1,0)+(2×AWG22))

Part No. <u>111634</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

Properties

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

• High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV

Number of conductors/cross-section (4G6+(2×1.0)+(2×AWG22))

Number of conductors 8

Cross-section, metric 6 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

Outer Ø 18 mm Outer Ø 0.709 inch

Surface matte, adhesion-free

Weight 51.2 kg/100 m Cu-Index 37.3 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G6

Conductor CU-wire bare IEC 60228, Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×1.0)

Conductor CU-wire bare

IEC 60228. Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22) Conductor CU-wire bare

IEC 60228, Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G6

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×1.0)
Insulation resistance at 20 °C \geq 500 M Ω ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards









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SU+ M(C)PUR HY (4G1,5+(2×1,0)+(2×AWG22)) Type

Part No. 111631

Product version

03 Datasheet version

Use/Application/Properties

Application

Properties

- · Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering

• High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV Description

Number of conductors/cross-section (4G1.5+(2×1.0)+(2×AWG22))

Number of conductors

Cross-section, metric 1.5 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

orange similar to RAL 2003 Jacket color

Outer Ø 13.2 mm Outer Ø 0.52 inch

Surface matte, adhesion-free

Weight 25.1 kg/100 m Cu-Index 16.3 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare IEC 60228, Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×1.0)

Conductor CU-wire bare

IEC 60228. Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22) Conductor CU-wire bare

IEC 60228, Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×1.0)
Insulation resistance at 20 °C \geq 500 M Ω ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards











Identification

SU+ M(C)PUR HY (4G2,5+(2×1,0)+(2×AWG22)) Type

Part No. 111632

Product version

03 Datasheet version

Use/Application/Properties

Application

Properties

- · Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering

• High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV Description

Number of conductors/cross-section (4G2.5+(2×1.0)+(2×AWG22))

Number of conductors 8

Cross-section, metric 2.5 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

Outer \emptyset 14.5 mm Outer \emptyset 0.571 inch

Surface matte, adhesion-free

Weight 31.4 kg/100 m Cu-Index 21.7 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×1.0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs
Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×1.0)
Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards











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Type SU+ M(C)PUR HY(4G1,0+(2×0,75)+(2×AWG22))

Part No. <u>111630</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

Properties

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

• High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.0+(2×0.75)+(2×AWG22))

Number of conductors 8

Cross-section, metric 1 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

 Outer Ø
 12.4 mm

 Outer Ø
 0.488 inch

Surface matte, adhesion-free

Weight 19 kg/100 m Cu-Index 13.5 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G1.0

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×0.75)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs
Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G1.0

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×0.75)
Insulation resistance at 20 °C \geq 500 M Ω ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Encoder cables for Siemens and other systems For highest requirements in drive technology













Identification

Type SU+(C) PUR FB (2×0,5+4×0,22+3×(2×0,14)+4×0,14) 30V

Part No. <u>111735</u> SIEMENS designation* 1BD51

Product version

Datasheet version 01

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section $(2\times0.5+4\times0.22+3\times(2\times0.14)+4\times0.14)$

Number of conductors 16

Cross-section, metric 0.5 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color green similar to RAL 6018

Outer Ø 9.4 mm

Surface adhesion-free, matte

 Weight
 15.3 kg/100 m

 Cu-Index
 7.6 kg/100 m

 Cu-Index
 51 Lbs/Mft

Construction Element 1

Element construction 2×0.5

Conductor CU-wire tin-plated

AWG conductor

Conductor category DIN EN 13602

Conductor marking brown/blue • brown/red

Conductor insulation PP blend

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 4×0,22

Conductor CU-wire tin-plated

AWG conductor

Conductor category DIN EN 13602

Conductor marking green/red • green/black • brown/yellow • brown/grey

Conductor insulation PP blend

Stranding star quad stranding

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 3

Element construction 3×(2×0.14)

Conductor CU-wire tin-plated

AWG conductor

Conductor category DIN EN 13602

Conductor marking yellow • green • black • brown • red • orange

Conductor insulation PP blend

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Wrapping PET

PUR feedback cables · C-track compatible · shielded

Construction Element 4

Element construction 4×0.14

Conductor CU-wire tin-plated

AWG conductor

Conductor category DIN EN 13602

Conductor marking blue • grey • white/yellow • white/black

Conductor insulation PP blend

Stranding star quad stranding

conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket Special PE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 30 V

Test voltage type AC 500 V

Temperature range moving $-20 \,^{\circ}\text{C} \dots +60 \,^{\circ}\text{C}$ Temperature range fixed $-50 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D
Minimum bending radius fixed 5×D
Bending cycles ≥10 Mio
Speed ≤5 m/s
Acceleration ≤50 m/s²
Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction 2×0.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Note

PUR feedback cables · C-track compatible · shielded

Technical Data Element 3		
Element construction	3~(0~0.44)	
	3×(2×0.14)	
Conductor resistance	≤154.6 Ω/km	
Operating capacitance wire-wire	approx.80 pF/m	
Technical Data Element 4		
Element construction	4×0.14	
Conductor resistance	≤154.6 Ω/km	
Certifications/Standards		
Certifications	cURus AWM II A/B	
UL style	AWM 20236	
Conformity	CE RoHS REACH	
Burning behavior according to	IEC 60332-1-2 UL Cable Flame Test (UL 1581) UL FT1	
Oil resistant according to	UL 758	
Halogen free according to	DIN EN 60754-1 VDE 0482-754-1	
General		

CE These products are in conformity with the EU Low Voltage Directive 2014/

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements







halogen free









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Type SU+ M (C) PUR SE (4G0,75+2×(2×0,34))

Part No. <u>111719</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G0.75+2×(2×0.34))

PVC servo cables · C-track compatible · shielded

Number of conductors 8

Cross-section, metric 0.75 mm²
Cross-section AWG AWG 19
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 11.2 mm Outer \emptyset 0.44 inch

Surface adhesion-free, matte
Weight 17.7 kg/100 m
Cu-Index 9.5 kg/100 m
Cu-Index 63.92 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G0.75

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction 2×(2×0.34)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

PVC servo cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Halogen free Silicone-free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G0.75

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire

Operating capacitance wire-shield

156 pF/m

Technical Data Element 2

Element construction 2×(2×0.34)

Operating capacitance wire-wire 66 pF/m

Operating capacitance wire-shield 126 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 21223
Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 UL 1581 part 1080 VW-1

UL FT1 UL VW-1

Oil resistant according to Oil Res I

DIN EN 60811-404

PVC servo cables · C-track compatible · shielded

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Note

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

* Leitungen für MS2N Motoren. Bosch-Rexroth und REL

Artikelbezeichnungen sind eingetragene Warenzeichen der Bosch Gruppe.

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards











Identification

SU+ M(C)PUR HY(4G0,75+(2×0,34)+(2×AWG22)) Type

Part No. 111728

Product version

03 Datasheet version

Use/Application/Properties

Application

- · Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering

Properties

- High active and passive interference resistance (EMC)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Description

Number of conductors/cross-section (4G0.75+(2×0.34)+(2×AWG22))

Number of conductors

Cross-section, metric 0.75 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

Outer \emptyset 11.7 mm Outer \emptyset 0.46 inch

Surface matte, adhesion-free

Weight 19.8 kg/100 m Cu-Index 11.4 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G0,75

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×0,34)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs
Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G0,75

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×0,34) Insulation resistance at 20 °C \geq 500 M Ω ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards











Identification

Type SU+M (C) PUR HY (4G10+(2×1,5)+(2×AWG22))

Part No. <u>111635</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

Properties

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

• High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV

Number of conductors/cross-section (4G10+(2×1.5)+(2×AWG22))

Number of conductors 8

Cross-section, metric 10 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

Outer \emptyset 21 mm Outer \emptyset 0.827 inch

Surface matte, adhesion-free

Weight 77.9 kg/100 m Cu-Index 78.3 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G10

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs
Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G10

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×1.5)
Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

LUTZE SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0,6/1 kV Combined power supply cable for servo motors with Hiperface DSL® interface For the highest of standards











Identification

Type SU+M (C) PUR HY (4G16+(2×1,5)+(2×AWG22))

Part No. <u>111636</u>

Product version

Datasheet version 03

Use/Application/Properties

Application

- Combined power supply cable with motor supply, brake and digital feedback especially for SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties • High active and passive interference resistance (EMC)

- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR HYBRID SERVO 0.6/1 kV

Number of conductors/cross-section (4G16+(2×1.5)+(2×AWG22))

Number of conductors 8

Cross-section, metric 16 mm²

PUR servo cables · C-track compatible · shielded

Jacket material TPE-U

Jacket color orange similar to RAL 2003

Outer \emptyset 26 mm Outer \emptyset 1.024 inch

Surface matte, adhesion-free
Weight 119.8 kg/100 m
Cu-Index 119.8 kg/100 m

Cable construction with control pair (black, white) and BUS pair (white, blue)

Construction Element 1

Element construction 4G16

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Polyolefin

Stranding conductors layered construction

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • white Conductor insulation Polyolefin

Stranding conductors stranded in pairs
Wrapping transparent plastic film

Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×AWG22)
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking white • blue Conductor insulation Polyolefin

pairs

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant Halogen free Silicone-free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G16

Insulation resistance at 20 °C ≥500 MΩ×km

Technical Data Element 2

Element construction (2×1.5)
Insulation resistance at 20 °C \geq 500 M Ω ×km

Technical Data Element 3

Certifications/Standards

PUR servo cables · C-track compatible · shielded

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Bosch-Rexroth and other systems For highest requirements in drive technology















Identification

Type SU+ (C) PUR FB (2×1,0+4×2×0,25) 300V

Part No. <u>111749</u>
INK Description* INK-0209*

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (2×1,0+4×2×0,25)

Number of conductors 10
Cross-section, metric 1 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 9 mm Outer \emptyset 0.354 inch

Surface adhesion-free, matte

 Weight
 11.5 kg/100 m

 Weight
 77.05 Lbs/Mft

 Cu-Index
 6.5 kg/100 m

 Cu-Index
 43.55 Lbs/Mft

Construction Element 1

Element construction 2×1,0

Conductor CU-wire bare

Conductor category IEC 60228, Class 6
Conductor marking white • brown
Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 4×2×0,25

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Conductor marking brown • green • grey • pink • red • black • blue • violet

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall construction

Overall stranding elements stranded together

Overall wrapping

Drain wire

Overall shield

Non-woven material

CU-wire tin-plated

Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Silicone-free

PUR feedback cables · C-track compatible · shielded

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion \pm 30°/m

Technical Data Element 1

Element construction 2×1,0

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.80 pF/m

Operating capacitance wire-shield approx.150 pF/m

Technical Data Element 2

Element construction 4×2×0,25
Insulation resistance at 20 °C ≥200 MΩ×km
Operating capacitance wire-wire approx.60 pF/m
Operating capacitance wire-shield approx.115 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 20233

Conformity CE

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

VW-1, FT1

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

PUR servo cables · C-track compatible · shielded

SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET Combined power supply cable for Bosch-Rexroth and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE ET (4G1,5+(2×0,75)+(4×AWG24))

Part No. <u>111738</u>
BOSCH REXROTH designation* REH0804

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET

Number of conductors/cross-section (4G1,5+(2×0,75)+(4×AWG24))

PUR servo cables · C-track compatible · shielded

Number of conductors 10

Cross-section, metric 1.5 mm²
Cross-section AWG AWG 16
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 13 mm Surface matte

Weight 25.2 kg/100 m Cu-Index 15 kg/100 m

Construction Element 1

Element construction 4G1,5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

superfine strand

Conductor marking black • with white number print • green/yellow

Conductor insulation PP

Construction Element 2

Element construction (2×0,75)

Conductor CU-wire bare

Conductor category DIN EN 60228, class 6

superfine strand

Conductor marking black • with white number print

Conductor insulation PP

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Element shielding tinned copper wires

Braid shield

optical cover approx. 85%

Construction Element 3

Element construction (4×AWG24)
Conductor construction AWG 24
Conductor CU-wire bare

AWG conductor

Conductor marking blue • white • yellow • orange

Conductor insulation PP

Stranding star quad stranding

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

layer pitch optimised

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant low-adhesion abrasion resistant

tough

tear resistant hydrolysis-resistant microbe resistant rot-resistant Weather resistant ozone-resistant

UV resistant (normal lighting conditions)

service water-resistant salt water-resistant coolant-resistant lubricant-resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Halogen free Silicone-free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

 $\begin{array}{lll} \mbox{Minimum bending radius moving} & 7.5\times\mbox{D} \\ \mbox{Minimum bending radius fixed} & 5\times\mbox{D} \\ \mbox{Category} & \mbox{Cat.5e} \\ \mbox{Bending cycles} & \geq 10\mbox{ Mio} \\ \mbox{Speed} & \leq 5\mbox{ m/s} \\ \mbox{Acceleration} & \leq 50\mbox{ m/s}^2 \\ \mbox{Torsion} & \pm 30\mbox{°/m} \\ \end{array}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

T۵	ch	nica	П	Data	FI	em	ent	2
16	CII	HILLO		Dala	_		CIIL	_

Element construction (2×0,75)
Insulation resistance at 20 °C 1000 M Ω ×km
Conductor resistance \leq 26 Ω /km

Technical Data Element 3

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE RoHS REACH

Burning behavior according to DIN EN 60332-1-2

IEC 60332-1-2 UL VW1, FT1 UL 1581 UL 2556

Oil resistant according to UL 1581

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

VDE 0472-815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Bosch Rexroth Artikelbezeichnungen sind geschützte Warenzeichen der

Bosch Gruppe

PUR servo cables · C-track compatible · shielded

SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET Combined power supply cable for Bosch-Rexroth and other systems For highest requirements











Identification

Type SU+ M (C)PUR SE ET (4G2,5+(2×1,0)+(4×AWG24))

Part No. <u>111739</u>
BOSCH REXROTH designation* REH0805

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET

Number of conductors/cross-section (4G2,5+(2×1,0)+(4×AWG24))

PUR servo cables · C-track compatible · shielded

Number of conductors 10

Cross-section, metric 2.5 mm²
Cross-section AWG AWG 14
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 15.8 mm Surface matte

Weight 34.3 kg/100 m Cu-Index 20.5 kg/100 m

Construction Element 1

Element construction 4G2,5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

superfine strand

Conductor marking black • with white number print • green/yellow

Conductor insulation PP

Construction Element 2

Element construction (2×1,0)

Conductor CU-wire bare

Conductor category DIN EN 60228, class 6

superfine strand

Conductor marking black • with white number print

Conductor insulation PP

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Element shielding tinned copper wires

Braid shield

optical cover approx. 85%

Construction Element 3

Element construction (4×AWG24)
Conductor construction AWG 24
Conductor CU-wire bare

AWG conductor

Conductor marking blue • white • yellow • orange

Conductor insulation PP

Stranding star quad stranding

conductors twisted without mechanical stress

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

layer pitch optimised

Overall wrapping Non-woven material

Inner jacket TPE

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant low-adhesion abrasion resistant

tough

tear resistant hydrolysis-resistant microbe resistant rot-resistant Weather resistant ozone-resistant

UV resistant (normal lighting conditions)

service water-resistant salt water-resistant coolant-resistant lubricant-resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Halogen free Silicone-free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

 $\begin{array}{lll} \mbox{Minimum bending radius moving} & 7.5\times\mbox{D} \\ \mbox{Minimum bending radius fixed} & 5\times\mbox{D} \\ \mbox{Category} & \mbox{Cat.5e} \\ \mbox{Bending cycles} & \geq 10\mbox{ Mio} \\ \mbox{Speed} & \leq 5\mbox{ m/s} \\ \mbox{Acceleration} & \leq 50\mbox{ m/s}^2 \\ \mbox{Torsion} & \pm 30\mbox{°/m} \\ \end{array}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

T۵	ch	nica	П	Data	FI	em	ent	2
16	CII	HILLO		Dala	_		CIIL	_

Element construction (2×1,0)

 $\begin{array}{ll} \mbox{Insulation resistance at 20 °C} & \mbox{1000 M}\Omega\mbox{\times}\mbox{km} \\ \mbox{Conductor resistance} & \leq 19.5 \ \Omega\mbox{/km} \end{array}$

Technical Data Element 3

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE RoHS

REACH

Burning behavior according to DIN EN 60332-1-2

IEC 60332-1-2 UL VW1, FT1 UL 1581 UL 2556

Oil resistant according to UL 1581

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

VDE 0472-815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Bosch Rexroth Artikelbezeichnungen sind geschützte Warenzeichen der

Bosch Gruppe

PUR servo cables · C-track compatible · shielded

SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET Combined power supply cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE ET (4G0,38+(2×0,38)+(4×0,2))

Part No. <u>111736</u> SIEMENS designation* 1BE04

Product version

Datasheet version 01

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET

Number of conductors/cross-section $(4G0,38+(2\times0,38)+(4\times0,2))$

Number of conductors 10

PUR servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 9.7 mm Surface matte

Weight 12.8 kg/100 m Cu-Index 7.5 kg/100 m

Construction Element 1

Element construction 4G0,38 Conductor construction AWG 22

Conductor CU-wire tin-plated

AWG conductor

Conductor category IEC 60228, Class 6

superfine strand

Conductor marking brown U/L1/C/L+ • black V/L2 • grey W/L3/D/L- • yellow/green

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×0,38)
Conductor construction AWG 22

Conductor CU-wire tin-plated

AWG conductor

Conductor category DIN EN 60228, class 6

superfine strand

Conductor marking black • white

Conductor insulation PP

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping

Element shielding tinned copper wires

Braid shield

optical cover approx. 85%

Construction Element 3

Element construction (4×0,2)

Conductor construction AWG 24

Conductor CU-wire bare

AWG conductor

Conductor marking yellow • blue • green • pink

mechanical stress

PUR servo cables · C-track compatible · shielded

Element shielding Aluminium laminate

Foil shield

tinned copper wires

Braid shield

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

Overall wrapping Non-woven material

Inner jacket Special TPE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant low-adhesion abrasion resistant

tough

tear resistant hydrolysis-resistant microbe resistant rot-resistant Weather resistant ozone-resistant

UV resistant (normal lighting conditions)

service water-resistant salt water-resistant coolant-resistant lubricant-resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Halogen free Silicone-free

Technical data

Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed5×DCategoryCat.5eBending cycles≥10 Mio

PUR servo cables · C-track compatible · shielded

Technical Data Element 1	
Element construction	4G0,38
Insulation resistance at 20 °C	≥1000 MΩ×km
Conductor resistance	≤59 Ω/km
Technical Data Element 2	
Element construction	(2×0,38)
Insulation resistance at 20 °C	1000 MΩ×km
Conductor resistance	≤59 Ω/km
Technical Data Element 3	
Element construction	(4×0,2)
Insulation resistance 20 °C	1000 MΩ×km
Conductor resistance	≤98 Ω/km
Operating capacitance wire-shield	approx.50 pF/m
Impedance	nom.100 Ω
Certifications/Standards	
Certifications	cURus
UL style	AWM 21209
Conformity	CE RoHS REACH
Burning behavior according to	DIN EN 60332-1-2 IEC 60332-1-2 UL VW-1 UL FT1
Oil resistant according to	UL 1581 DIN EN 60811-404 VDE 0472 part 803 A/B HD 22.10
Halogen free according to	IEC 60754-1
General	

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

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PUR servo cables · C-track compatible · shielded

SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET Combined power supply cable for Siemens and other systems For highest requirements













Identification

Type SU+ M (C) PUR SE ET (4G0,75+(2×0,5)+(4×0,2))

Part No. <u>111737</u>
SIEMENS designation* 1BE08

Product version

Datasheet version 01

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET

Number of conductors/cross-section $(4G0,75+(2\times0,5)+(4\times0,2))$

Number of conductors 10

PUR servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 10.5 mm Surface matte

Weight 15.8 kg/100 m Cu-Index 9.8 kg/100 m

Construction Element 1

Element construction 4G0,75 Conductor construction AWG 19

Conductor CU-wire tin-plated

AWG conductor

Conductor category IEC 60228, Class 6

superfine strand

Conductor marking brown U/L1/C/L+ • black V/L2 • grey W/L3/D/L- • yellow/green

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×0,5)

Conductor construction AWG 21

Conductor CU-wire tin-plated

AWG conductor

Conductor category DIN EN 60228, class 6

superfine strand

Conductor marking black • white

Conductor insulation

Stranding conductors stranded in pairs

PΡ

conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping

Element shielding tinned copper wires

Braid shield

optical cover approx. 85%

Construction Element 3

Element construction (4×0,2)

Conductor construction AWG 24

Conductor CU-wire bare

AWG conductor

Conductor marking yellow • blue • green • pink

mechanical stress

PUR servo cables · C-track compatible · shielded

Element shielding Aluminium laminate

Foil shield

tinned copper wires

Braid shield

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

Overall wrapping Non-woven material

Inner jacket Special TPE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant low-adhesion abrasion resistant

tough

tear resistant hydrolysis-resistant microbe resistant rot-resistant Weather resistant ozone-resistant

UV resistant (normal lighting conditions)

service water-resistant salt water-resistant coolant-resistant lubricant-resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Halogen free Silicone-free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving7.5×DMinimum bending radius fixed5×DCategoryCat.5eBending cycles≥10 Mio

PUR servo cables · C-track compatible · shielded

Technical Data Element 1	
Element and the disc	100.75
Element construction	4G0,75
Insulation resistance at 20 °C	≥1000 MΩ×km
Conductor resistance	≤27 Ω/km
Technical Data Element 2	
Element construction	(2×0,5)
Insulation resistance at 20 °C	1000 MΩ×km
Conductor resistance	≤41 Ω/km
Technical Data Element 3	
Toomiour Buta Element o	
Element construction	(4×0,2)
Insulation resistance 20 °C	1000 MΩ×km
Conductor resistance	≤98 Ω/km
Operating capacitance wire-shield	approx.50 pF/m
Impedance	nom.100 Ω
Certifications/Standards	
Certifications	cURus
UL style	AWM 21209
Conformity	CE
Comorning	RoHS
	REACH
Burning behavior according to	DIN EN 60332-1-2 IEC 60332-1-2
	UL VW-1
	UL FT1
Oil resistant according to	UL 1581
	DIN EN 60811-404
	VDE 0472 part 803 A/B HD 22.10
Halogon from according to	IEC 60754-1
Halogen free according to	IEC 007 34-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Lenze and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G6+(2×1,0)) 1kV

Part No. <u>111764</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G6+(2×1.0))

Number of conductors 6

Cross-section, metric 6 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 16.9 mm

Surface adhesion-free, matte

Weight 47.7 kg/100 m Cu-Index 31.6 kg/100 m

Construction Element 1

Element construction 4G6

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • white Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G6

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.84 pF/m

Operating capacitance wire-shield approx.151 pF/m

Technical Data Element 2

Element construction (2×1)

Operating capacitance wire-wire approx.93 pF/m
Operating capacitance wire-shield approx.167 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Lenze and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G10+(2×1,0)) 1kV

Part No. <u>111765</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G10+(2×1.0))

Number of conductors 6

Cross-section, metric 10 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 20.3 mm

Surface adhesion-free, matte

Weight 71 kg/100 m Cu-Index 51.3 kg/100 m

Construction Element 1

Element construction 4G10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • white Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G10

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.81 pF/m

Operating capacitance wire-shield approx.146 pF/m

Technical Data Element 2

Element construction (2×1)

Operating capacitance wire-wire approx.93 pF/m
Operating capacitance wire-shield approx.167 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements













Identification

SU+ M (C) PUR SE (4G10+(2×1,0)+(2×1,5)) Type

Part No. 111762.1000 BOSCH REXROTH designation* **REL0110**

Product version

01 Datasheet version

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G10+(2×1.0)+(2×1.5))

Number of conductors 8

Cross-section, metric 10 mm²
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 21.9 mm Outer \emptyset 0.874 inch

Surface adhesion-free, matte
Weight 83.7 kg/100 m
Weight 562.43 Lbs/Mft
Cu-Index 57 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G10

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction (2×1,0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Construction Element 3

Element construction (2×1.5)

Conductor CU-wire bare

VDE 0295

print

PUR servo cables · C-track compatible · shielded

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

Technical Data Element 1

Element construction 4G10

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.81 pF/m

Operating capacitance wire-shield approx.146 pF/m

PUR servo cables · C-track compatible · shielded

Operating capacitance wire-shield approx.243 pF/m

Technical Data Element 3

Element construction (2×1.5)

 $\begin{array}{ll} \mbox{Insulation resistance 20 °C} & \mbox{1000 M}\Omega\times\mbox{km} \\ \mbox{Operating capacitance wire-wire} & \mbox{approx.157 pF/m} \\ \mbox{Operating capacitance wire-shield} & \mbox{approx.283 pF/m} \end{array}$

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1-2 UL VW1, FT1 UL 1581 UL 2556

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are registered trademarks of the Bosch Group.

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Lenze and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G4+(2×1,0)) 1kV

Part No. <u>111763</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G4+(2×1.0))

Number of conductors 6

Cross-section, metric 4 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 14.8 mm

Surface adhesion-free, matte

Weight 37.3 kg/100 m Cu-Index 23.5 kg/100 m

Construction Element 1

Element construction 4G4

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • white Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion $\pm 30^{\circ}/m$

Technical Data Element 1

Element construction 4G4

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.78 pF/m

Operating capacitance wire-shield approx.140 pF/m

Technical Data Element 2

Element construction (2×1)

Operating capacitance wire-wire approx.93 pF/m
Operating capacitance wire-shield approx.167 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements







halogen free









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Type SU+ M (C) PUR SE (4G10+(2×1,0)+(2×1,5))

Part No. <u>111762</u>
INK Description* INK 0605

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX $^{\circ}$ PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section $(4G10+(2\times1.0)+(2\times1.5))$

Number of conductors 8

Cross-section, metric 10 mm²
Cross-section AWG AWG 8
Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 22.3 mm Outer \emptyset 0.878 inch

Surface adhesion-free, matte

 Weight
 76.5 kg/100 m

 Weight
 513 Lbs/Mft

 Cu-Index
 57 kg/100 m

 Cu-Index
 376 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G10

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×10)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

PVC servo cables · C-track compatible · shielded

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

PVC servo cables · C-track compatible · shielded

Operating capacitance wire-shield approx.146 pF/m

Technical Data Element 2

Element construction (2×10)

Operating capacitance wire-wire approx.135 pF/m
Operating capacitance wire-shield approx.143 pF/m

Technical Data Element 3

Element construction (2×1.5)

Operating capacitance wire-wire approx.157 pF/m
Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 UL 1581 part 1080 VW-1

UL FT1 UL VW-1

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

registered trademarks of the Bosch Group.

PUR servo cables · C-track compatible · shielded

SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET Combined power supply cable for Siemens and other systems For highest requirements















Identification

SU+ M (C) PUR SE ET (4G1,5+(2×1,5)+(4×0,2)) Type

Part No. 111791 1BE11 SIEMENS designation*

Product version

01 Datasheet version

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- · Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering

Properties

- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET

Number of conductors/cross-section $(4G1,5+(2\times1,5)+(4\times0,2))$

Number of conductors 10

PUR servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 12.7 mm Surface matte

Weight 25.8 kg/100 m Cu-Index 18 kg/100 m

Construction Element 1

Element construction 4G1,5

Conductor CU-wire tin-plated
Conductor category IEC 60228, Class 6

superfine strand

Conductor marking brown U/L1/C/L+ • black V/L2 • grey W/L3/D/L- • yellow/green

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor CU-wire tin-plated
Conductor category DIN EN 60228, class 6

superfine strand

Conductor marking black/turquoise • white/turquoise

Conductor insulation PP

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping

Element shielding tinned copper wires

Braid shield

optical cover approx. 85%

Construction Element 3

Element construction (4×0,2)

Conductor construction AWG 24

Conductor CU-wire bare

AWG conductor

Conductor marking yellow • blue • green • pink

Conductor insulation PF

Stranding star quad stranding

conductors twisted without mechanical stress

layer pitch optimised

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

layer pitch optimised

Overall wrapping Non-woven material

Inner jacket Special TPE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant low-adhesion abrasion resistant

tough

tear resistant hydrolysis-resistant microbe resistant rot-resistant Weather resistant ozone-resistant

UV resistant (normal lighting conditions)

service water-resistant salt water-resistant coolant-resistant lubricant-resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Halogen free Silicone-free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

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Element construction (2×1,5) Insulation resistance at 20 °C 1000 M Ω

Insulation resistance at 20 °C 1000 MΩ×km Conductor resistance \leq 13.7 Ω/km

Technical Data Element 3

Element construction $(4\times0,2)$

 $\begin{array}{lll} \mbox{Insulation resistance 20 °C} & 1000 \ \mbox{M}\Omega \times \mbox{km} \\ \mbox{Conductor resistance} & \leq 98 \ \Omega / \mbox{km} \\ \mbox{Operating capacitance wire-shield} & \mbox{approx.50 pF/m} \end{array}$

Impedance nom.100 Ω

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to DIN EN 60332-1-2

IEC 60332-1-2 UL VW-1 UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404 VDE 0472 part 803 A/B

HD 22.10

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* SIEMENS article designations are registered trademarks of SIEMENS AG

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Bosch-Rexroth and other systems For highest requirements in drive technology















Identification

Type SU+ (C) PUR FB (2×0,5+4×2×0,25) 300V

Part No. <u>111780</u>
INK Description* INK-0448*

Product version

Datasheet version 00

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (2×0.5+4×2×0.25)

Number of conductors 10
Cross-section, metric 0.5 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 8.5 mm Outer \emptyset 0.335 inch

Surface adhesion-free, matte

 Weight
 10 kg/100 m

 Weight
 67 Lbs/Mft

 Cu-Index
 5.9 kg/100 m

 Cu-Index
 40 Lbs/Mft

Construction Element 1

Element construction 2×0.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking white • brown Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 4×2×0.25

Conductor Cu-wire bare

Conductor category IEC 60228, Cla

ductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking brown • green • grey • pink • red • black • violet • blue

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall construction

Overall stranding layered construction around core

elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

PUR feedback cables · C-track compatible · shielded

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 2×0.5

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.57 pF/m

Operating capacitance wire-shield approx.103 pF/m

Technical Data Element 2

Element construction $4\times2\times0.25$ Insulation resistance at 20 °C ≥200 M Ω ×km Operating capacitance wire-wire approx.57 pF/m Operating capacitance wire-shield approx.103 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 20233

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2

PUR feedback cables · C-track compatible · shielded

General	
Note	CE These products are in conformity with the EU Low Voltage Directive 2014 35/EU

PUR feedback cables · C-track compatible · shielded

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Bosch-Rexroth and other systems For highest requirements in drive technology













Identification

Type SU+ (C) PUR FB (2×0,5+2×2×0,25) 300V

Part No. <u>111781</u>
INK Description* INK-0750*

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - · Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (2×0.5+2×2×0.25)

Number of conductors 6

Cross-section, metric 2.5 mm²

PUR feedback cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 7.6 mm Outer \emptyset 0.299 inch

Surface adhesion-free, matte

 Weight
 9 kg/100 m

 Weight
 60 Lbs/Mft

 Cu-Index
 4.2 kg/100 m

 Cu-Index
 28 Lbs/Mft

Construction Element 1

Element construction 2×0,5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking white • brown Conductor insulation Special TPE

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction 2×2×0,25
Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking grey • pink • red • black

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

PUR feedback cables · C-track compatible · shielded

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Rated voltage 300 V
Test voltage type AC 2000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion $\pm 30^{\circ}/m$

Technical Data Element 1

Element construction 2×0,5

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.53 pF/m

Operating capacitance wire-shield approx.95 pF/m

Technical Data Element 2

Element construction $2\times2\times0,25$ Insulation resistance at 20 °C \geq 200 M Ω ×km
Operating capacitance wire-wire approx.61 pF/m
Operating capacitance wire-shield approx.110 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 20233

Conformity CE

RoHS REACH TSCA

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

PUR feedback cables · C-track compatible

LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK Feedback cables for Heidenhain and other systems For highest requirements in drive technology





LÜTZE SUPERFLEX®



Identification

Type SU+ (C) PUR FB (4×0,5+4×2×0,14)

Part No. <u>111777</u>

Product version

Datasheet version 02

Use/Application/Properties

Application

- Incremental encoder cable, termination cable for tacho sensor, brake sensor, speed sensor
- Through full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - · Very good alternating bending strength
 - Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - · Silicone free

Construction

Description SUPERFLEX® PLUS (C) PUR FEEDBACK

Number of conductors/cross-section (4×0.5+4×2×0.14)

Number of conductors 12

Cross-section, metric 0.5 mm²

Jacket material PUR

PUR feedback cables · C-track compatible

black similar to RAL 9005 Jacket color

Outer Ø 8.6 mm

Surface adhesion-free, matte

9.2 kg/100 m Weight 4.8 kg/100 m Cu-Index

Construction Element 1

Element construction 4×0.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

white • blue • brown/green • white/green Conductor marking

Conductor insulation Special TPE

Stranding layer pitch optimised

conductors twisted without mechanical stress

Construction Element 2

Element construction 4×2×0.14 Conductor CU-wire bare

IEC 60228, Class 6 Conductor category

Superfinely stranded DIN VDE 0295

class 6

Conductor marking yellow • violet • grey • pink • brown • green • red • black

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Overall construction

elements stranded together Overall stranding

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Silicone-free

PUR feedback cables · C-track compatible

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving 7.5×D

Minimum bending radius fixed 5×D

Bending cycles ≥10 Mio

Speed ≤5 m/s

Acceleration ≤50 m/s²

Torsion \pm 30°/m

Technical Data Element 1

Element construction 4×0.5

Insulation resistance at 20 °C ≥200 MΩ×km

Operating capacitance wire-wire approx.61 pF/m

Operating capacitance wire-shield approx.110 pF/m

Technical Data Element 2

Element construction $4\times2\times0.14$ Insulation resistance at 20 °C \geq 200 M Ω ×km
Operating capacitance wire-wire approx.54 pF/m
Operating capacitance wire-shield approx.98 pF/m

Certifications/Standards

Certifications cURus

UL style AWM 20233

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

UL 1581

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU



PUR feedback cables · C-track compatible

	111772				
	 Incremental encoder cable, connection cable for tacho sensor, brake sensor, speed sensor Due to Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, 				
extremely rough operating co	nditions and aggressive coolants and lubricants onments in mechanical and system engineering				
High active and passive interfBraided shield optimised for cVery good alternating bending	continuous flexible use				
 Low adhesion, abrasion-resistant, nick-resistant, tear-propagation-resistant Hydrolysis-resistant, microbe-resistant, and rot-resistant 					
 Weatherproof, ozone and UV resistant (normal lighting conditions) 					
 Excellent coolant and lubricar 					
	s, alcohol-free benzines and kerosene				
RoHS compliant					
	extremely rough operating co Especially for industrial enviro High active and passive interf Braided shield optimised for co Very good alternating bending Low adhesion, abrasion-resis Hydrolysis-resistant, microbe Weatherproof, ozone and UV Good ruggedness and salt wa Excellent coolant and lubricar Resistant to most oils, grease Silicone free				

SUPERFLEX+ (C) PUR FEEDBACK SEW

Description

Number of conductors/cross-section (5×2×0.25)

Jacket material PUR

Jacket color green RAL 6018

Outer \varnothing 8.8 mm Surface adhesion-free matt

Weight 9 kg/100 m Cu-Index 4.9 kg/100 m

Element 1

Element construction (5×2×0,25)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Klasse 6

Conductor marking white brown

green yellow grey pink blue red black violet

Conductor insulation Special TPE

overall construction

Overall stranding stranded pairs

Conductors twisted without mechanical stress

schlaglängenoptimiert

Overall wrapping Non-woven material

Overall shield Braid shield

Tinned copper wires optical cover approx. 85%

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Tec		

Minimum bending radius moving 12×D Minimum bending radius fixed 6×D

Element 1

Element construction $(5\times2\times0,25)$ Insulation resistance at 20°C $200.0 \text{ M}\Omega\times\text{km}$

Approvals/Standards

Approvals cURus
UL style AWM 20233
Conformity CE

RoHS

Burning behavior IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 Part 1080 VW-1

UL FT1

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU

Logo















PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements











Identification

SU+ M (C) PUR SE (4G6+(2×1,0)+(2×1,5)) Type

Part No. 111998.1000 BOSCH REXROTH designation* **REL0109**

Product version

01 Datasheet version

Use/Application/Properties

Application

Properties

- For IndraDyn S MS2N* system and similar
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- · Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PUR servo cables · C-track compatible · shielded

Number of conductors/cross-section (4G6+(2×1.0)+(2×1.5))

Number of conductors 8

Cross-section, metric 6 mm²

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 18 mm Outer \emptyset 0.716 inch

Surface adhesion-free, matte
Weight 55.6 kg/100 m
Weight 373.61 Lbs/Mft
Cu-Index 38.5 kg/100 m

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G6

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation TPE

Construction Element 2

Element construction (2×1,0)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires

optical cover approx. 85%

Construction Element 3

Element construction (2×1.5)

Conductor CU-wire bare

VDE 0295

print

PUR servo cables · C-track compatible · shielded

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion \pm 30°/m

Technical Data Element 1

Element construction 4G6

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.84 pF/m

Operating capacitance wire-shield approx.151 pF/m

PUR servo cables · C-track compatible · shielded

Operating capacitance wire-shield approx.143 pF/m

Technical Data Element 3

Element construction (2×1.5)

 $\begin{array}{ll} \mbox{Insulation resistance 20 °C} & \mbox{1000 M}\Omega\times\mbox{km} \\ \mbox{Operating capacitance wire-wire} & \mbox{approx.157 pF/m} \\ \mbox{Operating capacitance wire-shield} & \mbox{approx.283 pF/m} \end{array}$

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity CE

RoHS REACH TSCA

Burning behavior according to VDE 0482-332-1-2

DIN EN 60332-1-2 IEC 60332-1-2 UL VW1, FT1 UL 1581 UL 2556

Oil resistant according to UL 4d100C

DIN EN 60811-404 DIN EN 50363-10-2

Halogen free according to IEC 60754-1

DIN EN 60754-1 DIN 0472 Part 815

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are registered trademarks of the Bosch Group.

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Bosch Rexroth and other systems For highest requirements

















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Type SU+ M (C) PUR SE (4G6+(2×1,0)+(2×1,5))

Part No. <u>111998</u>
INK Description* INK 0604

Product version

Datasheet version 02

Use/Application/Properties

Application

Properties

- For Indramat* system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description

SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

PVC servo cables · C-track compatible · shielded

Number of conductors/cross-section $(4G6+(2\times1.0)+(2\times1.5))$

Number of conductors 8

Cross-section, metric 6 mm²

Cross-section AWG AWG 10

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 18.4 mm Outer \emptyset 0.724 inch

Surface adhesion-free, matte

 Weight
 53 kg/100 m

 Weight
 355 Lbs/Mft

 Cu-Index
 38.5 kg/100 m

 Cu-Index
 245 Lbs/Mft

Cable construction Construction with two control pairs (digit print 5, 6 and 7, 8)

Construction Element 1

Element construction 4G6

Conductor CU-wire bare
Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print • yellow/green

Conductor insulation Special TPE

Construction Element 2

Element construction (2×10)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

tinned copper wires Aluminium laminate

Foil shield

optical cover approx. 85%

PVC servo cables · C-track compatible · shielded

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

Class 6

Conductor marking black • with white number print

Conductor insulation Special TPE

Stranding conductors stranded in pairs

layer pitch optimised

conductors twisted without mechanical stress

Wrapping Foil taping
Element shielding Braid shield

galvanised steel wire Aluminium laminate

Foil shield

optical cover approx. 85%

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Silicone-free Halogen free

Technical data

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Minimum bending radius moving $7.5 \times D \leq 16 \, \text{mm}^2$

Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion± 30°/m

PVC servo cables · C-track compatible · shielded

Operating capacitance wire-shield approx.151 pF/m

Technical Data Element 2

Element construction (2×10)

Operating capacitance wire-wire approx.135 pF/m
Operating capacitance wire-shield approx.143 pF/m

Technical Data Element 3

Element construction (2×1.5)

Operating capacitance wire-wire approx.157 pF/m
Operating capacitance wire-shield approx.283 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity

RoHS REACH

Burning behavior according to IEC 60332-1-2

DIN EN 60332-1-2 UL 1581 part 1080 VW-1

UL FT1 UL VW-1

Oil resistant according to Oil Res I

DIN EN 60811-404

Halogen free according to DIN EN 60754-1

IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MS2N motors. Bosch Rexroth and REL article designations are

registered trademarks of the Bosch Group.

PUR servo cables · C-track compatible · shielded

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV High Flexing Motor Cable for Siemens and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G1,0) 90°C

Part No. <u>111879.1000</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Excellent coolant and lubricant resistance
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0,6/1 kV

Number of conductors/cross-section (4G1,0)

Number of conductors 4

Cross-section, metric 1 mm²

Cross-section AWG AWG 18

PUR servo cables · C-track compatible · shielded

Jacket material Special PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 7.4 mm Outer \emptyset 0.291 inch

Surface adhesion-free, matte

 Weight
 10.8 kg/100 m

 Weight
 72.4 Lbs/Mft

 Cu-Index
 6.5 kg/100 m

 Cu-Index
 43 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G1,0)

Conductor CU-wire bare

Conductor category DIN EN 60228, Class 6

Superfinely stranded DIN VDE 0295

Conductor marking Power conductors black with numbered print U/L1/C/L+, V/L2, W/L3/D/L- •

green/yellow

Conductor insulation PP

Stranding Conductors twisted without mechanical stress

Layer pitch optimised

Overall construction

Overall stranding Conductors layered construction

Conductors twisted without mechanical stress

Layer pitch optimised

Overall shield Braid shield

Optical cover approx. 85 %

Technical data

Rated voltage U_0/U 1000

Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed5 m/sAcceleration 50 m/s^2 Torsion $\pm 30^\circ/\text{m}$

PUR servo cables · C-track compatible · shielded

Certifications/Standards

Certifications cURus

UL style AWM 21209

Conformity

RoHS REACH TSCA

Burning behavior according to IEC 60332-1-1 to 1-3

UL 1581 VW-1

UL FT1

Oil resistant according to UL 4d100C

DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU

* Cables for MOTION-CONNECT 800PLUS. Siemens, MOTION-CONNECT 800PLUS and Siemens article designations are registered trademarks of

Siemens AG.

LUTZE SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV Supply line for Lenze and other systems For highest requirements











Identification

Type SU+ M (C) PUR SE (4G2,5+(2×0,5)) 1kV

Part No. <u>111997</u>

Product version

Datasheet version 00

Use/Application/Properties

Application

Properties

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through full PUR jacket and TPE / HGI conductor insulation optimally suited for c-tracks, extremely harsh operating conditions and aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- High protection against electromagnetic interferences (EMI)
- · Braided shield optimised for continuous flexing use
- · Very good alternating bending strength
- · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
- · Hydrolysis-resistant, microbe-resistant, and rot-resistant
- Weathering, ozone and UV resistant (normal lighting conditions)
- · Industrial and salt water resistant
- · Excellent coolant and lubricant resistance
- Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5+(2×0.5))

Number of conductors 6

Cross-section, metric 2.5 mm²

PVC servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer Ø 12.8 mm

Surface adhesion-free, matte

Weight 27.1 kg/100 m Cu-Index 15.3 kg/100 m

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking black • with white number print • U/L1/C/L+ • V/L2 • W/L3/D/L- • yellow/green

Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×0.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 6

Superfinely stranded DIN VDE 0295

class 6

Conductor marking brown • white Conductor insulation Special TPE

Stranding conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping
Element shielding Braid shield

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

grease-resistant

petrol-resistant (alcohol-free)

PVC servo cables · C-track compatible · shielded

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Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V

Temperature range moving $-25 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +80 \,^{\circ}\text{C}$

Minimum bending radius moving $7.5 \times D$ Minimum bending radius fixed $5 \times D$ Bending cycles≥10 MioSpeed≤5 m/sAcceleration≤50 m/s²Torsion $\pm 30^{\circ}$ /m

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥1000 MΩ×km

Operating capacitance wire-wire approx.71 pF/m

Operating capacitance wire-shield approx.128 pF/m

Technical Data Element 2

Element construction (2×0.5)

Operating capacitance wire-wire approx.81 pF/m
Operating capacitance wire-shield approx.146 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 21223

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

Oil resistant according to DIN EN 60811-404

Halogen free according to IEC 60754-1

DIN EN 60754-1

General

in conformity with the EU Low Voltage Directive 2014/

PUR servo cables · C-track compatible · shielded

SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET Combined power supply cable for Siemens and other systems For highest requirements















Identification

Type SU+ M (C) PUR SE ET (4G2,5+(2×1,5)+(4×0,2))

Part No. <u>111792</u> SIEMENS designation* 1BE21

Product version

Datasheet version 01

Use/Application/Properties

Application

- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- Through optimized cable construction optimally suited for continuous flexing applications in C-tracks
- Very good resitance against aggressive coolants and lubricants
- Especially for industrial environments in mechanical and system engineering
- Properties High protection against electromagnetic interferences (EMI)
 - · Braided shield optimised for continuous flexing use
 - Very good alternating bending strength
 - · Low adhesion, abrasion-resistant, nick-resistant, tear-resistant
 - · Hydrolysis-resistant, microbe-resistant, and rot-resistant
 - Weathering, ozone and UV resistant (normal lighting conditions)
 - · Industrial and salt water resistant
 - Excellent coolant and lubricant resistance
 - · Largely resistant to oils, greases, alcohol-free benzines and kerosene
 - Silicone free

Construction

Description SUPERFLEX® PLUS M (C) PUR SERVO ETHERNET

Number of conductors/cross-section (4G2,5+(2×1,5)+(4×0,2))

Number of conductors 10

PUR servo cables · C-track compatible · shielded

Jacket material PUR

Jacket color orange similar to RAL 2003

Outer \emptyset 13.7 mm Surface matte

Weight 30.4 kg/100 m Cu-Index 21.5 kg/100 m

Construction Element 1

Element construction 4G2,5

Conductor CU-wire tin-plated
Conductor category IEC 60228, Class 6

superfine strand

Conductor marking brown U/L1/C/L+ • black V/L2 • grey W/L3/D/L- • yellow/green

Conductor insulation PP

Stranding conductors twisted without mechanical stress

layer pitch optimised

Construction Element 2

Element construction (2×1,5)

Conductor CU-wire tin-plated
Conductor category DIN EN 60228, class 6

superfine strand

Conductor marking black/turquoise • white/turquoise

Conductor insulation PP

Stranding conductors stranded in pairs

conductors twisted without mechanical stress

layer pitch optimised

Wrapping Foil taping

Element shielding tinned copper wires

Braid shield

optical cover approx. 85%

Construction Element 3

Element construction (4×0,2)

Conductor construction AWG 24

Conductor CU-wire bare

AWG conductor

Conductor marking yellow • blue • green • pink

Conductor insulation PP

Stranding star quad stranding

conductors twisted without mechanical stress

layer pitch optimised

PUR servo cables · C-track compatible · shielded

Overall construction

Overall stranding elements stranded together

layer pitch optimised

Overall wrapping Non-woven material

Inner jacket Special TPE
Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

Oil resistant low-adhesion abrasion resistant

tough

tear resistant hydrolysis-resistant microbe resistant rot-resistant Weather resistant ozone-resistant

UV resistant (normal lighting conditions)

service water-resistant salt water-resistant coolant-resistant lubricant-resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant Halogen free Silicone-free

Technical data

Rated voltage 1000 V
Test voltage type AC 3000 V

Temperature range moving $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$ Temperature range fixed $-40 \,^{\circ}\text{C} \dots +90 \,^{\circ}\text{C}$

Technical Data Element 1

PUR servo cables · C-track compatible · shielded

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Element construction (2×1,5) Insulation resistance at 20 °C 1000 M Ω

Insulation resistance at 20 °C 1000 MΩ×km Conductor resistance \leq 13.7 Ω/km

Technical Data Element 3

Element construction $(4\times0,2)$

 $\begin{array}{lll} \mbox{Insulation resistance 20 °C} & 1000 \ \mbox{M}\Omega \times \mbox{km} \\ \mbox{Conductor resistance} & \leq 98 \ \Omega / \mbox{km} \\ \mbox{Operating capacitance wire-shield} & \mbox{approx.50 pF/m} \end{array}$

Impedance nom.100 Ω

Certifications/Standards

Certifications cURus
UL style AWM 21209

Conformity CE

RoHS REACH

Burning behavior according to DIN EN 60332-1-2

IEC 60332-1-2 UL VW-1 UL FT1

Oil resistant according to UL 1581

DIN EN 60811-404 VDE 0472 part 803 A/B

HD 22.10

Halogen free according to IEC 60754-1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G6) 1kV

Part No. <u>116404</u> SIEMENS designation* 1BB41

Product version

Datasheet version 00

Use/Application/Properties

Application

- For Siemens 6FX5008* standard system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Flexible design for easy installation
- Suitable for static laying and slight movement of machine components (not C-track)
- Low capacitance for high dielectric strength for long cable lengths from inverter to motor
- · In dry and damp rooms
- Especially for industrial environments in mechanical and system engineering

Low capacitance for high dielectric strength

- High protection against electromagnetic interferences (EMI)
- PVC Flame-retardant, self-extinguishing
- Orange RAL 2003 per DESINA
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Properties

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G6)

Number of conductors 4

Cross-section, metric 6 mm²

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 13.2 mm Outer \emptyset 0.52 inch

Surface adhesion-free, matte

 Weight
 38 kg/100 m

 Weight
 255 Lbs/Mft

 Cu-Index
 28 kg/100 m

 Cu-Index
 188 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G6)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPM/PP

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -25 °C ... +80 °C

PVC servo cables · shielded

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.120 pF/m

Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G1,5+(2×1,5)) 1kV

Part No. <u>116415</u> SIEMENS designation* 1BA11

Product version

Datasheet version 00

Use/Application/Properties

Application
 For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

• Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5+(2×1.5))

Number of conductors 6

Cross-section, metric 1.5 mm²

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 11.6 mm Outer \emptyset 0.457 inch

Surface adhesion-free, matte

 Weight
 24.8 kg/100 m

 Weight
 167 Lbs/Mft

 Cu-Index
 15 kg/100 m

 Cu-Index
 104 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPM/PP

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • white

Stranding conductors stranded in pairs

Element shielding Braid shield

optical cover approx. 85% tinned copper wires

Overall construction

Overall stranding elements stranded together

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing

PVC servo cables · shielded

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -25 °C ... +80 °C

Minimum bending radius moving 10×D
Minimum bending radius fixed 6×D

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.80 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.140 pF/m
Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G4) 1kV

Part No. <u>116403</u> SIEMENS designation* 1BB31

Product version

Datasheet version 00

Use/Application/Properties

Application

- For Siemens 6FX5008* standard system (and similar)
- Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology
- · Flexible design for easy installation
- Suitable for static laying and slight movement of machine components (not C-track)
- Low capacitance for high dielectric strength for long cable lengths from inverter to motor
- · In dry and damp rooms
- Especially for industrial environments in mechanical and system engineering

Low capacitance for high dielectric strength

- High protection against electromagnetic interferences (EMI)
- PVC Flame-retardant, self-extinguishing
- Orange RAL 2003 per DESINA
- · Largely resistant to oils, greases, alcohol-free benzines and kerosene
- · Silicone free

Construction

Properties

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G4)

Number of conductors 4

Cross-section, metric 4 mm²

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 11.5 mm Outer \emptyset 0.453 inch

Surface adhesion-free, matte

 Weight
 31.2 kg/100 m

 Weight
 210 Lbs/Mft

 Cu-Index
 19.4 kg/100 m

 Cu-Index
 131 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G4)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPM/PP

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -25 °C ... +80 °C

PVC servo cables · shielded

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.115 pF/m

Operating capacitance wire-shield approx.200 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G1,5) 1kV

Part No. 116401 SIEMENS designation* 1BB11

Product version

Datasheet version 00

Use/Application/Properties

Application For Siemens 6FX5008* standard system (and similar)

> Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

· Flexible design for easy installation

· Suitable for static laying and slight movement of machine components (not C-track)

· Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system

engineering

Properties · Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

· PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5)

Number of conductors 4

1.5 mm² Cross-section, metric

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 8.4 mm Outer \emptyset 0.331 inch

Surface adhesion-free, matte

 Weight
 13.1 kg/100 m

 Weight
 88 Lbs/Mft

 Cu-Index
 8 kg/100 m

 Cu-Index
 59 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPM/PP

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -25 °C ... +80 °C

PVC servo cables · shielded

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.80 pF/m

Operating capacitance wire-shield approx.140 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G2,5) 1kV

Part No. 116402 SIEMENS designation* 1BB21

Product version

Datasheet version 00

Use/Application/Properties

Application For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

· Flexible design for easy installation

· Suitable for static laying and slight movement of machine components (not C-track)

· Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system

engineering

Properties · Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

· PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5)

Number of conductors 4

2.5 mm² Cross-section, metric

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 10.6 mm Outer \emptyset 0.417 inch

Surface adhesion-free, matte

 Weight
 21.9 kg/100 m

 Weight
 147 Lbs/Mft

 Cu-Index
 13 kg/100 m

 Cu-Index
 8.9 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G2.5)
Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPM/PP

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -25 °C ... +80 °C

PVC servo cables · shielded

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.105 pF/m

Operating capacitance wire-shield approx.185 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G1,5+(2×1,5)) 0,6/1kV

Part No. <u>116427</u> SIEMENS designation* 1BA11

Product version

Datasheet version 01

Use/Application/Properties

Application • For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5+(2×1.5))

Number of conductors 6

Cross-section AWG AWG 16

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 10.2 mm Outer \emptyset 0.401 inch

Surface adhesion-free, matte

 Weight
 17.8 kg/100 m

 Weight
 119.26 Lbs/Mft

 Cu-Index
 11.5 kg/100 m

 Cu-Index
 77.05 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G1.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • white

Conductor insulation TPE

Stranding conductors stranded in pairs

Element shielding Braid shield

optical cover approx. 85% tinned copper wires

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

%

PVC servo cables · shielded

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -20 °C ... +80 °C Minimum bending radius moving 10×D

Minimum bending radius moving 10×D Minimum bending radius fixed 2.5×D

Technical Data Element 1

Element construction 4G1.5

Insulation resistance at 20 °C ≥1000 MΩ×kmOperating capacitance wire-wire max.73 pF/m Operating capacitance wire-shield max.150 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C≥1000 MΩ×kmConductor resistance≤15 Ω /kmOperating capacitance wire-wiremax.125 pF/mOperating capacitance wire-shieldmax.230 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to DIN EN 60332-1-2

UL Cable Flame Test (UL 1581)

CSA FT 1

Oil resistant according to ISO 6722

in conformity with the EU Low Voltage Directive 2014/

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Identification

Type SI M (C) PVC SE (4G2,5) 0,6/1kV

Part No. <u>116425</u> SIEMENS designation* 1BB21

Product version

Datasheet version 01

Use/Application/Properties

Application
 For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5)

Number of conductors 4

Cross-section, metric 2.5 mm²

PVC servo cables · shielded

Cross-section AWG AWG 14

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 9.6 mm Outer \emptyset 0.378 inch

Surface adhesion-free, matte
Weight 17.4 kg/100 m

Weight 116.58 Lbs/Mft
Cu-Index 11 kg/100 m
Cu-Index 73.7 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G2.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPE

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -20 °C ... +80 °C

Minimum bending radius moving 10×D

PVC servo cables · shielded

Conductor resistance 13.3 Ω /km

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE

RoHS REACH

Burning behavior according to DIN EN 60332-1-2

UL Cable Flame Test (UL 1581)

CSA FT 1

Oil resistant according to ISO 6722

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G4) 0,6/1kV

Part No. <u>116426</u> SIEMENS designation* 1BB31

Product version

Datasheet version 01

Use/Application/Properties

Application • For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

· Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G4)
Number of conductors 4
Cross-section, metric 4 mm²

PVC servo cables · shielded

Cross-section AWG AWG 12

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 11 mm 0.433 inch

Surface adhesion-free, matte
Weight 25.1 kg/100 m

 Weight
 168.17 Lbs/Mft

 Cu-Index
 18.5 kg/100 m

 Cu-Index
 123.95 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G4)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPE

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C

PVC servo cables · shielded

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Element construction (4G4)

Insulation resistance at 20 °C ≥1000 MΩ×kmOperating capacitance wire-wire max.103 pF/m Operating capacitance wire-shield max.195 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to DIN EN 60332-1-2

UL Cable Flame Test (UL 1581)

CSA FT 1

Oil resistant according to ISO 6722

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G2,5+(2×1,5)) 1kV

Part No. <u>116416</u> SIEMENS designation* 1BA21

Product version

Datasheet version 00

Use/Application/Properties

Application
 For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5+(2×1.5))

Number of conductors 6

Cross-section, metric 2.5 mm²

PVC servo cables · shielded

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 13 mm Outer \emptyset 0.512 inch

Surface adhesion-free, matte

 Weight
 31 kg/100 m

 Weight
 208 Lbs/Mft

 Cu-Index
 19.5 kg/100 m

 Cu-Index
 131 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPM/PP

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • white

Stranding conductors stranded in pairs

Element shielding Braid shield

optical cover approx. 85% tinned copper wires

Overall construction

Overall stranding elements stranded together

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing

PVC servo cables · shielded

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Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C Temperature range fixed -25 °C ... +80 °C

Minimum bending radius moving 10×D
Minimum bending radius fixed 6×D

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥500 MΩ×km

Operating capacitance wire-wire approx.105 pF/m

Operating capacitance wire-shield approx.120 pF/m

Technical Data Element 2

Element construction (2×1.5)
Insulation resistance at 20 °C ≥500 MΩ×km
Operating capacitance wire-wire approx.185 pF/m
Operating capacitance wire-shield approx.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE

RoHS REACH

Burning behavior according to IEC 60332-1

DIN EN 60332-1-2 VDE 0482 322-1-2 UL 1581 part 1080 VW-1

UL FT1

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G1,5) 0,6/1kV

Part No. <u>116424</u> SIEMENS designation* 1BB11

Product version

Datasheet version 01

Use/Application/Properties

Application • For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

• Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G1.5)

Number of conductors 4

Cross-section, metric 1.5 mm²

PVC servo cables · shielded

Cross-section AWG AWG 16

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 8.1 mm Outer \emptyset 0.319 inch

Surface adhesion-free, matte
Weight 12.1 kg/100 m
Weight 81.07 Lbs/Mft
Cu-Index 7.1 kg/100 m

Cu-Index 7.1 kg/100 m
Cu-Index 47.57 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPE

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C

PVC servo cables · shielded

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Element construction (4G1.5)

Insulation resistance at 20 °C ≥1000 MΩ×km
Operating capacitance wire-wire max.85 pF/m
Operating capacitance wire-shield max.155 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to DIN EN 60332-1-2

UL Cable Flame Test (UL 1581)

CSA FT 1

Oil resistant according to ISO 6722

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

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Identification

Type SI M (C) PVC SE (4G6) 0,6/1kV

Part No. <u>116429</u> SIEMENS designation* 1BB41

Product version

Datasheet version 01

Use/Application/Properties

Application
 For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

• Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G6)

Number of conductors 4

Cross-section, metric 6 mm²

PVC servo cables · shielded

Cross-section AWG AWG 10

Jacket material Special PVC

Jacket color orange similar to RAL 2003

Outer \emptyset 13.2 mm Outer \emptyset 0.519 inch

Surface adhesion-free, matte
Weight 38.3 kg/100 m
Weight 256.61 Lbc/Mft

 Weight
 256.61 Lbs/Mft

 Cu-Index
 27.5 kg/100 m

 Cu-Index
 184.25 Lbs/Mft

Cable construction Construction without signal pair

Construction Element 1

Element construction (4G6)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPE

Overall construction

Overall stranding layered construction

Overall wrapping Foil taping

over the cable core Non-woven material

Overall shield Braid shield

tinned copper wires

optical cover approx. 85 %

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U_0/U 600/1000 V Rated voltage UL 1000 V Test voltage type AC 4000 V Temperature range moving -5 °C ... +80 °C

PVC servo cables · shielded

Technical Data Element 1

Element construction (4G6)

Insulation resistance at 20 $^{\circ}$ C ≥1000 M Ω ×km Operating capacitance wire-wire max.110 pF/m Operating capacitance wire-shield max.210 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to DIN EN 60332-1-2

UL Cable Flame Test (UL 1581)

CSA FT 1

Oil resistant according to ISO 6722

General

Note CE These products are in conformity with the EU Low Voltage Directive 2014/

35/EU









Identification

Type SI M (C) PVC SE (4G2,5+(2×1,5)) 0,6/1kV

Part No. <u>116428</u> SIEMENS designation* 1BA21

Product version

Datasheet version 01

Use/Application/Properties

Application • For Siemens 6FX5008* standard system (and similar)

 Termination cable motor or motor/brake especially for frequency converters and SERVO drives in machine and plant construction, transport and conveyor technology

• Flexible design for easy installation

 Suitable for static laying and slight movement of machine components (not C-track)

 Low capacitance for high dielectric strength for long cable lengths from inverter to motor

· In dry and damp rooms

Especially for industrial environments in mechanical and system
 engineering

engineering

Properties • Low capacitance for high dielectric strength

High protection against electromagnetic interferences (EMI)

• PVC Flame-retardant, self-extinguishing

Orange RAL 2003 per DESINA

· Largely resistant to oils, greases, alcohol-free benzines and kerosene

· Silicone free

Construction

Description SILFLEX® M (C) PVC SERVO 0.6/1 kV

Number of conductors/cross-section (4G2.5+(2×1.5))

Number of conductors 6

PVC servo cables · shielded

Cross-section AWG AWG 14

AWG 16

Jacket material Special PVC

Jacket color orange similar to RAL 2003

 Outer Ø
 11.7 mm

 Outer Ø
 0.461 inch

Surface adhesion-free, matte

 Weight
 24.9 kg/100 m

 Weight
 166.83 Lbs/Mft

 Cu-Index
 15.8 kg/100 m

 Cu-Index
 105.86 Lbs/Mft

Cable construction Construction with one signal pair (white, black)

Construction Element 1

Element construction 4G2.5

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • with white print • U/L1/C/L+ • V/L2 • W/L3/D/L- • green/yellow

Conductor insulation TPE

Construction Element 2

Element construction (2×1.5)

Conductor CU-wire bare

Conductor category IEC 60228, Class 5

Finely stranded DIN VDE 0295

Class 5

Conductor marking black • white

Conductor insulation TPE

Stranding conductors stranded in pairs

Element shielding Braid shield

optical cover approx. 85%

tinned copper wires

Overall construction

Overall stranding elements stranded together

layer pitch optimised

conductors twisted without mechanical stress

Overall wrapping Foil taping

over the cable core Non-woven material

PVC servo cables · shielded

Jacket characteristics Flame-retardant

self-extinguishing Silicone-free Oil resistant grease-resistant

petrol-resistant (alcohol-free)

kerosene-resistant

Technical data

Rated voltage U₀/U

Rated voltage UL

Test voltage type

AC 4000 V

Temperature range moving

-5 °C ... +80 °C

Temperature range fixed

AC 4000 V

Temperature range moving

-20 °C ... +80 °C

Minimum bending radius moving 10×D
Minimum bending radius fixed 2.5×D

Technical Data Element 1

Element construction 4G2.5

Insulation resistance at 20 °C ≥1000 MΩ×kmOperating capacitance wire-wire max.80 pF/m Operating capacitance wire-shield max.155 pF/m

Technical Data Element 2

Element construction (2×1.5)

Insulation resistance at 20 °C \geq 1000 MΩ×km Conductor resistance \leq 9 Ω/km Operating capacitance wire-wire max.125 pF/m Operating capacitance wire-shield max.230 pF/m

Certifications/Standards

Certifications cURus
UL style AWM 2570

Conformity CE RoHS

REACH

Burning behavior according to DIN EN 60332-1-2

UL Cable Flame Test (UL 1581)

CSA FT 1

Oil resistant according to ISO 6722

in conformity with the EU Low Voltage Directive 2014/

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