

Technical data sheet · LÜTZE SUPERFLEX® PLUS (C) PUR FEEDBACK

Encoder cables for Siemens and other systems

For highest requirements in drive technology



PUR feedback cables · C-track compatible · shielded

Identification	Type	SU+(C) PUR FB (2×0,5+3×(2×0,14)+4×0,14) 30V
	Part-No.	111458
SIEMENS designation*	1BD41	

Use/Application/Characteristics

Application	• Incremental encoder cable, connection cable for tachometer sensor, brake sensor, speed sensor • Due to Full PUR jacket and TPE conductor insulation optimally suited for c-tracks, extremely rough operating conditions and aggressive coolants and lubricants • Especially for industrial environments in mechanical and system engineering
Characteristics	• High active and passive interference resistance (EMC) • Braided shield optimised for continuous flexible use • Very good alternating bending strength • Low adhesion, abrasion-resistant, nick-resistant, tear-resistant • Hydrolysis-resistant, microbe-resistant, and rot-resistant • Weatherproof, ozone and UV resistant (normal lighting conditions) • Good ruggedness and salt water resistance • Excellent coolant and lubricant resistance • Resistant to most oils, greases, alcohol-free benzines and kerosene • Silicone free • RoHS compliant

02.02.2020 – Subject to technical modification

Part-No. 111458

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Construction

Description	SUPERFLEX® PLUS (C) PUR FEEDBACK
Number of conductors/cross-section	(2×0.5+3×(2×0.14)+4×0.14)
Cross-section, metric	0.5 mm²
Jacket material	PUR
Jacket color	green RAL 6018
Outer Ø	8.6 mm
Outer Ø	0.339 inch
Surface	adhesion-free matt
Weight	12.2 kg/100 m
Weight	82 Lbs/Mft
Cu-Index	6.1 kg/100 m
Cu-Index	41 Lbs/Mft

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 layerpitch optimised

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

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SYSTEMATIC TECHNOLOGY

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Stranding	conductors stranded in pairs conductors twisted without mechanical stress layer pitch optimised
Element shielding	Spiral shield optical cover approx. 90% Tinned copper wires

Element 3

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	Fleece taping
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 V
Test voltage type	AC 500 V
Temperature range moving	-25 °C ... +80 °C
Temperature range fixed	-40 °C ... +80 °C

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Minimum bending radius moving	7.5×D
Minimum bending radius fixed	5×D
Bending cycles	≥10 Mio
Travel distance	≤2,5 m
Speed	5 m/s
Acceleration	50 m/s ²
Torsion	± 30°

Element 1

Element construction	2×0.5
Insulation resistance at 20 °C	200 MΩ×km
Operating capacitance wire-wire	68 pF/m
Operating capacitance wire-shield	122 pF/m

Element 2

Element construction	3×(2×0.14)
Operating capacitance wire-wire	147 pF/m
Operating capacitance wire-shield	270 pF/m

Element 3

Element construction	4×0.14
Operating capacitance wire-wire	53 pF/m
Operating capacitance wire-shield	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

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General

Note

CE These products are in conformity with the EU Low Voltage Directive 2014/35/EU
* SIEMENS and DRIVE-CLiQ are registered trademarks

Symbols



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