Bus system cable - VS-FSDBPS-IP20-93G-LI/2,0 - 1419146

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Assembled EtherCAT® cable, shielded, star quad, AWG 22 stranded (7-wire), RAL 6018 (yellow-green), M12 flush-type socket, SPEEDCON, 4-pos. on RJ45 connector/IP20, length: 2 m

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 540704
GTIN	4046356540704
Custom tariff number	85444210
Country of origin	Germany

Technical data

Dimensions

Length of cable	2 m

Ambient conditions

Ambient temperature (operation)	-10 °C ... 60 °C (cable, fixed installation)
Degree of protection	IP20 (RJ45 connector)
	IP67 (M12 connector)

General

Number of positions	4
Signal type/category	EtherCAT®, 100 Mbps
Insertion/withdrawal cycles	≥ 100

Material

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Technical data

Material

Flammability rating according to UL 94	V0

Standards and Regulations

Flammability rating according to UL 94	V0

Cable

Cable abbreviation	2YY(ST)CY
UL AWM style	21694
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.55 mm
Wire colors	White, yellow, blue, orange
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
External sheath, color	green RAL 6018
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	6.5 mm ±0.2 mm
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Cable weight	67 kg/km
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)
	76 dB (at 4 MHz)
	70 dB (at 10 MHz)
	65 dB (at 16 MHz)
	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)

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Cable

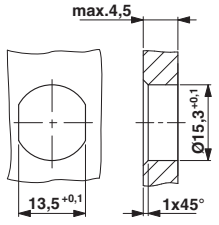
Attenuation	2.1 dB (with 1 MHz)
	4 dB (at 4 MHz)
	6.3 dB (at 10 MHz)
	8 dB (at 16 MHz)
	9 dB (at 20 MHz)
	11.4 dB (at 31.25 MHz)
	16.5 dB (at 62.5 MHz)
	21.3 dB (at 100 MHz)
Signal speed	0.66 c
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Other resistance	UV resistant According to UL 1581, Section 1200
Flame resistance	according to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (cable, flexible installation)

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

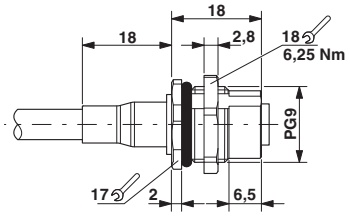
Drawings

Dimensional drawing



Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

Dimensional drawing



M12 panel feed-through

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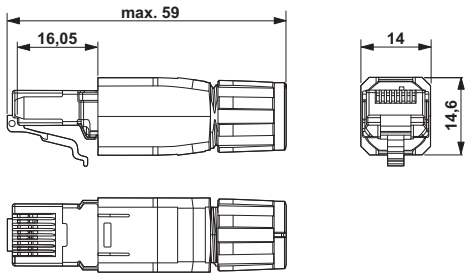
Dimensional drawing



RJ45 connector

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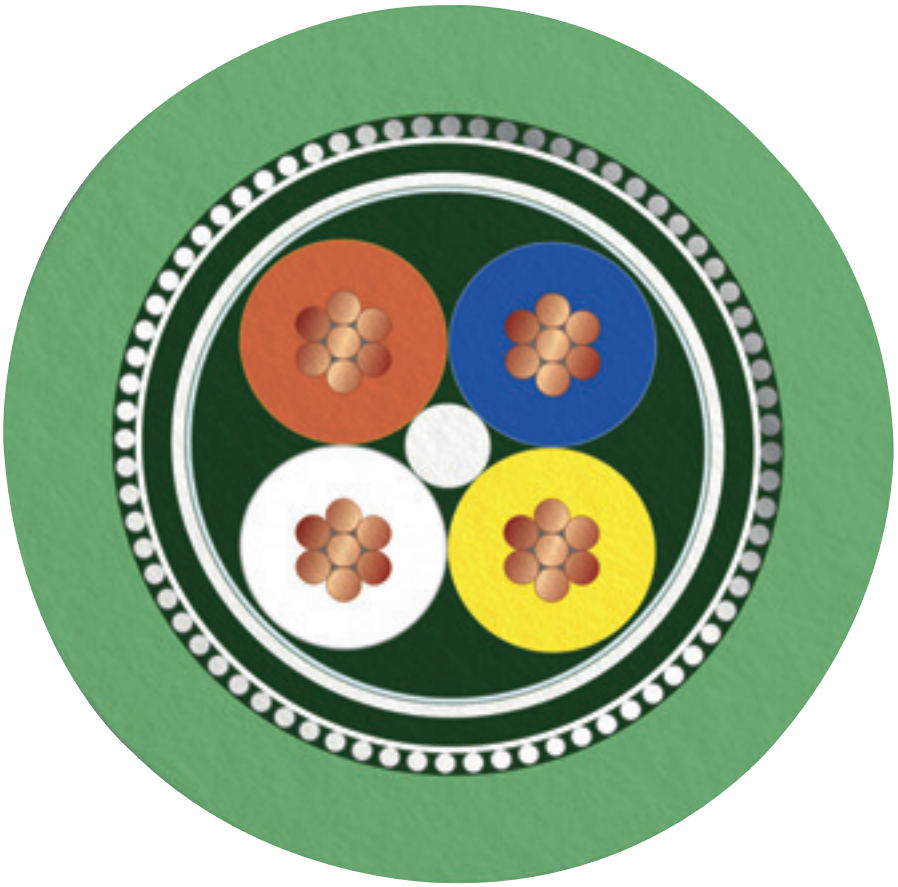
Cable cross section



PROFINET PVC stranded CAT5 [93B]

Classifications

eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 11.0	27440102
eCl@ss 4.0	27060300
eCl@ss 4.1	27060300
eCl@ss 5.0	27060300
eCl@ss 5.1	27060300
eCl@ss 6.0	27279200
eCl@ss 7.0	27440103
eCl@ss 9.0	27440102

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Classifications

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 6.0	EC002061

UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	39121413
UNSPSC 18.0	39121413
UNSPSC 19.0	39121413
UNSPSC 20.0	39121413
UNSPSC 21.0	39121413

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC	EAC	19060508