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

1419146

https://www.phoenixcontact.com/gb/products/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

Commercial Data

Item number	1419146
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	ABQCED
Product Key	ABQCED
Catalog Page	Page 385 (C-4-2015)
GTIN	4046356540704
Weight per Piece (including packing)	173.6 g
Weight per Piece (excluding packing)	173.6 g
Customs tariff number	85444210
Country of origin	DE

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Technical Data

Product properties

Product type	Data cable preassembled
Number of positions	4
No. of cable outlets	1
Shielded	yes
Cable outlet	straight

Interfaces

Signal type/category	EtherCAT®, 100 Mbps

Electrical properties

Transmission medium	Copper

Material specifications

Flammability rating according to UL 94	V0

Connector

Insertion/withdrawal cycles	≥ 100

Connection 1

Type	Flush-type female connector straight M12 SPEEDCON
Number of positions	4

Connection 2

Type	Plug straight RJ45 / IP20
Number of positions	4

Cable / line

Cable length	2 m
Cable weight	67 kg/km
UL AWM Style	21694
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Signal runtime	5.3 ns/m
Signal speed	0.66 c
Conductor structure signal line	7x 0.25 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.55 mm
External cable diameter	6.5 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018

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Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	White, yellow, blue, orange
Thickness, outer sheath	approx. 0.9 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±15 Ω (at 100 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.)
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
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)
Shield 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)
Flame resistance	according to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 60 °C
Signal type/category	EtherCAT®, 100 Mbps
Cable structure	1x4xAWG22/7; SF/TQ
External cable diameter	6.50 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	7x 0.25 mm

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AWG signal line	22
Wire diameter incl. insulation	1.55 mm
Smallest bending radius, fixed installation	55 mm (cable, fixed installation)
Smallest bending radius, movable installation	55 mm (Cable, flexible installation)
Smallest bending radius, fixed installation	55 mm (cable, fixed installation)
Smallest bending radius, movable installation	55 mm (Cable, flexible installation)

Ambient conditions

Degree of protection	IP20 (RJ45 connector)
	IP67 (M12 connector)
Degree of protection	IP20
Ambient temperature (operation)	-10 °C ... 60 °C (cable, fixed installation)
	-5 °C ... 50 °C (Cable, flexible installation)

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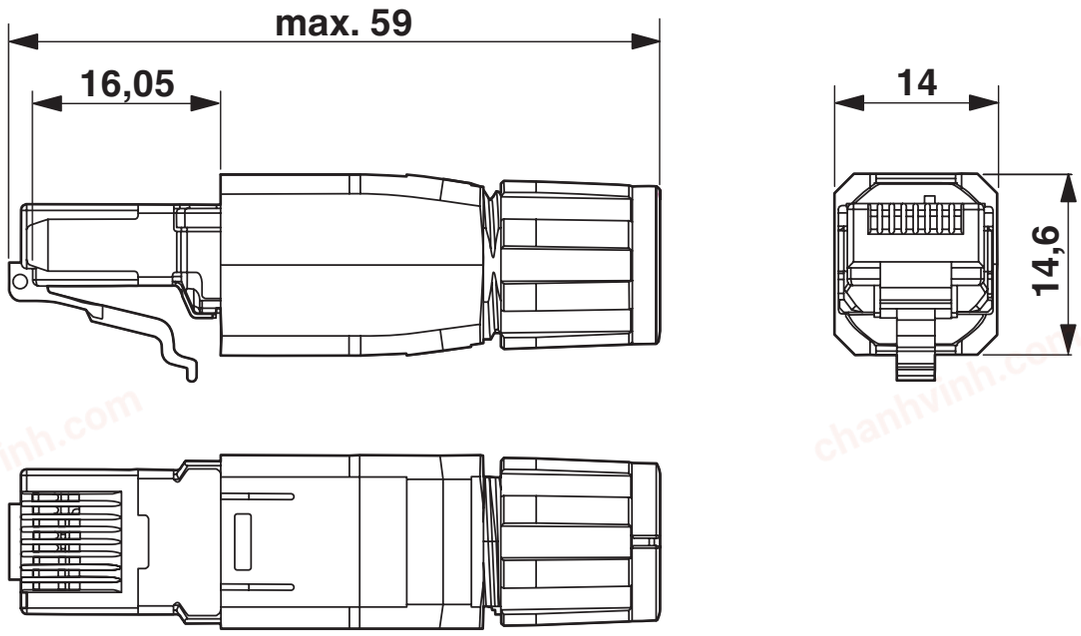
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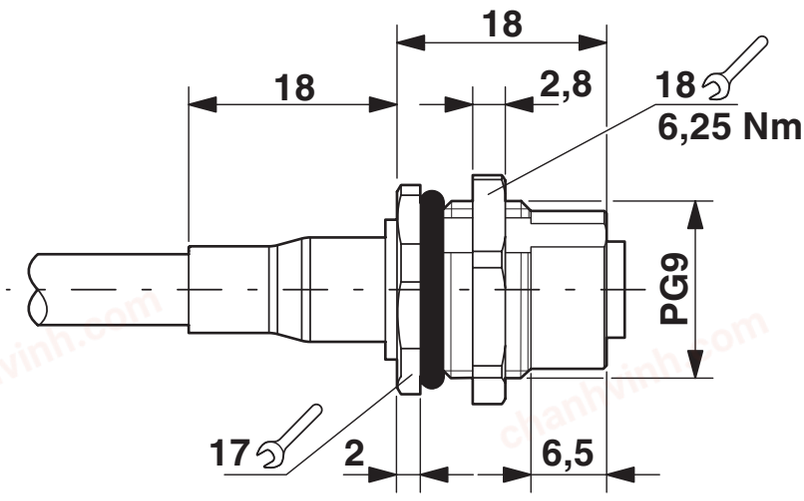
Drawings

Dimensional drawing



RJ45 connector

Dimensional drawing



M12 panel feed-through

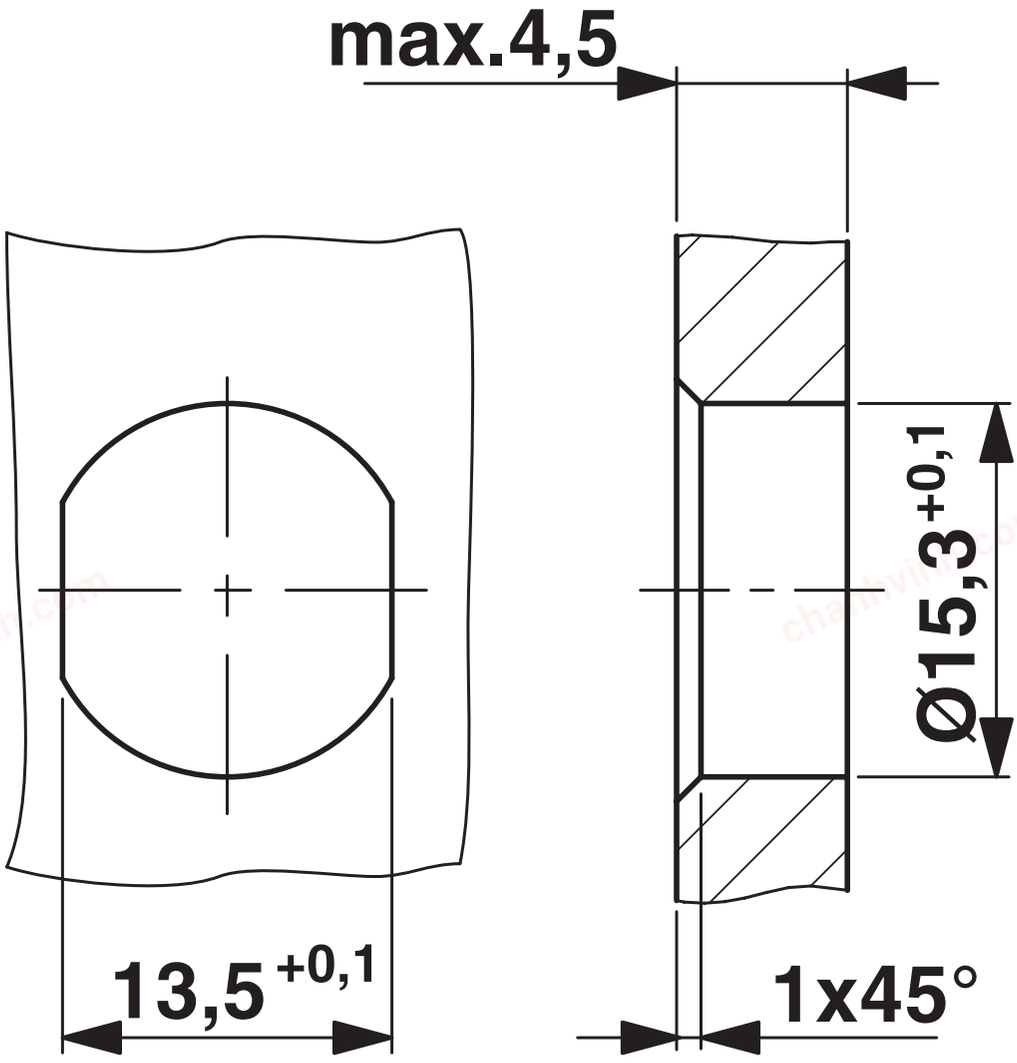
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Dimensional drawing



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

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Approvals

EAC
Approval ID: 19060508

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Classifications

ECLASS

ECLASS-9.0	27440102
ECLASS-10.0.1	27440102
ECLASS-11.0	27440102

ETIM

ETIM 8.0	EC002635

UNSPSC

UNSPSC 21.0	39121400

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Environmental Product Compliance

REACh SVHC	Lead 7439-92-1

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer’s declaration available under “Downloads”

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