

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



1419146

<https://www.phoenixcontact.com/us/products/1419146>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Bus system cable, degree of protection: IP67/IP20, cable length: 2 m, number of positions: 4, 100 Mbps, cable outlet: straight, EtherCAT®, 1x4xAWG22/7, SF/TQ, green RAL 6018

Commercial data

Item number	1419146
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AB18
Product key	ABNPAA
GTIN	4046356540704
Weight per piece (including packing)	167.2 g
Weight per piece (excluding packing)	161.262 g
Customs tariff number	85444210
Country of origin	PL

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



1419146

<https://www.phoenixcontact.com/us/products/1419146>

Technical data

Product properties

Product type	Circular connectors (device side)
Sensor type	EtherCAT®
Number of positions	4
No. of cable outlets	1
Shielded	yes
Cable outlet	straight

Material specifications

Flammability rating according to UL 94	V0
Outer sheath, material	PVC
Conductor material	Tin-plated Cu litz wires

Electrical properties

Transmission medium	Copper
Transmission speed	100 Mbps

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	-------

Connector

Connection 1

Type	Flush-type female connector straight M12
Locking type	SPEEDCON
Coding type	A
Degree of protection	IP65/IP67

Connection 2

Type	Plug straight RJ45
Degree of protection	IP20

Cable/line

Cable length	2.00 m
--------------	--------

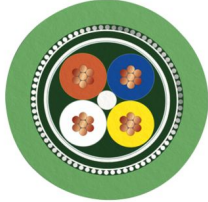
PROFINET PVC stranded CAT5 [93B]

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



1419146

<https://www.phoenixcontact.com/us/products/1419146>

Dimensional drawing	
Cable weight	67 kg/km
UL AWM Style	21694
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
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 mm ²
Wire diameter incl. insulation	1.55 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 0.90 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	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Smallest bending radius, fixed installation	20 mm
Smallest bending radius, movable installation	46 mm
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)

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



1419146

<https://www.phoenixcontact.com/us/products/1419146>

	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

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-101

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

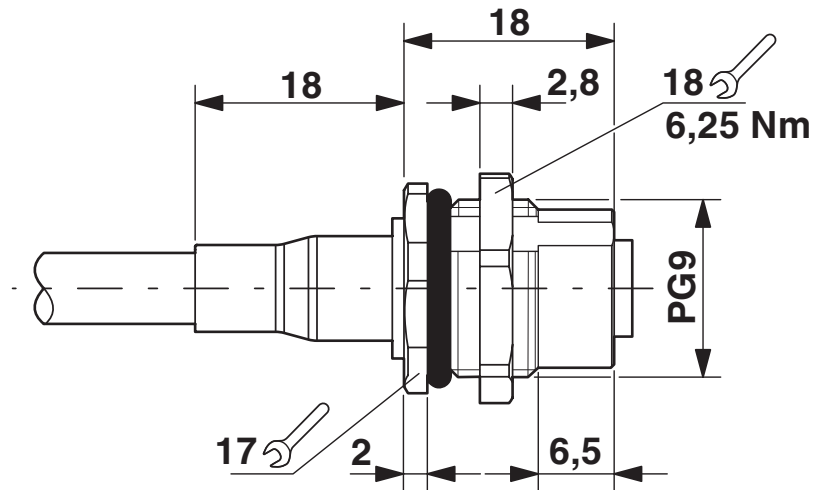


1419146

<https://www.phoenixcontact.com/us/products/1419146>

Drawings

Dimensional drawing



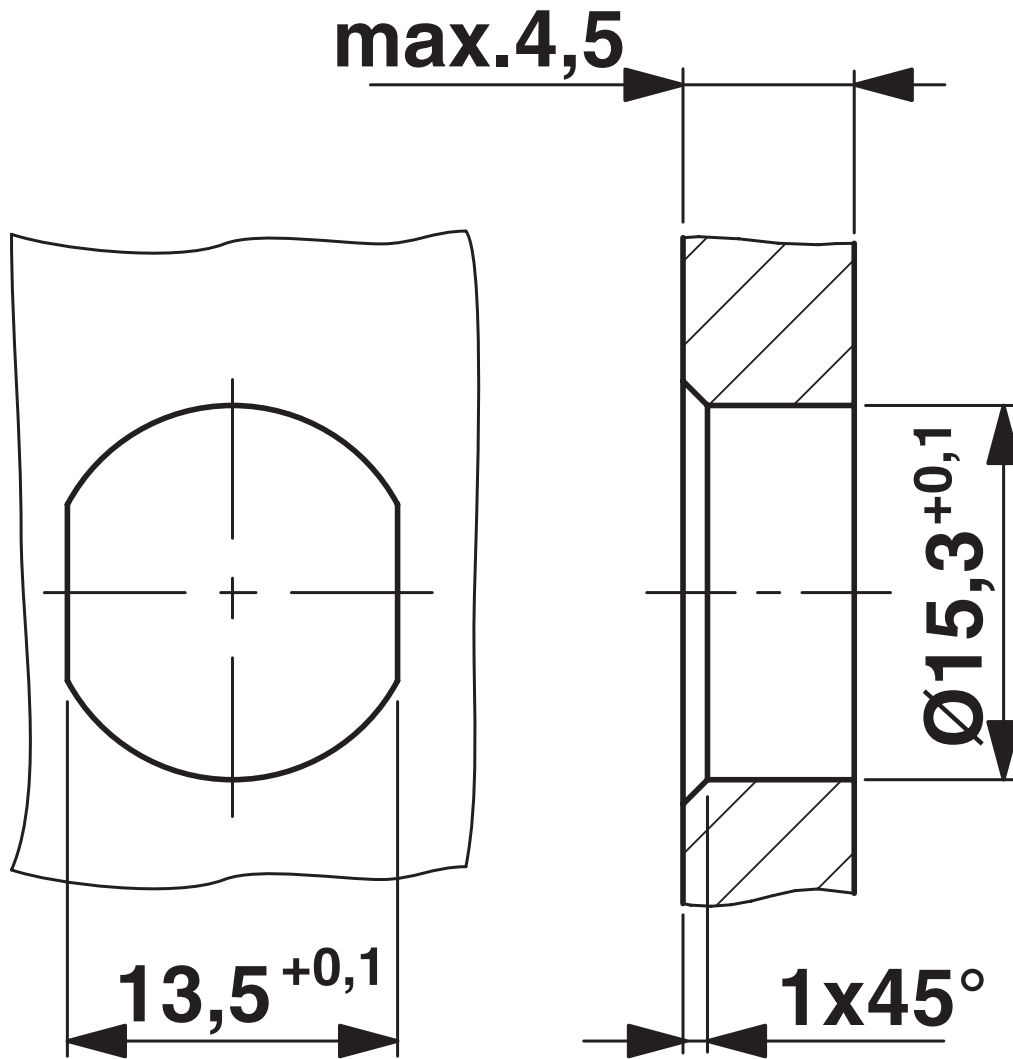
M12 panel feed-through

Dimensional drawing



RJ45 connector

Dimensional drawing



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

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



1419146

<https://www.phoenixcontact.com/us/products/1419146>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1419146>



EAC

Approval ID: 19060508

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



1419146

<https://www.phoenixcontact.com/us/products/1419146>

Classifications

ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27440103

ETIM

ETIM 10.0	EC003570
-----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

1419146

<https://www.phoenixcontact.com/us/products/1419146>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	29ba78a6-a330-43d3-a6d6-d70681d95feb

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com