VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

PHŒNIX CONTACT

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Device connector, rear mounting, PROFINET CAT5 (100 Mbps) CAT5 (100 Mbps), 4-position halogen-free, green RAL 6018, shielded, Socket, straight, M12-SPEEDCON, coding: D , on free cable end, Rear mounting, Cable lug connection, cable length: 5 m, PROFINET, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1260715

Your advantages

- Preassembled with cables in various standard lengths for immediate use
- Customer-specific assemblies and cable lengths can be supplied
- Sealed on the cable side for optimum tightness of seal
- Cable designs for all common networks and fieldbuses
- For high transmission safety: shield connection to the housing with optional EMC nut

Commercial data

Item number	1416263
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB25
Product key	ABQDGI
Catalog page	Page 311 (PC-2011)
GTIN	4046356473453
Weight per piece (including packing)	139.7 g
Weight per piece (excluding packing)	139.7 g
Customs tariff number	85444210
Country of origin	DE

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Technical data

Notes

General	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.

Product properties

Product type	Data cable preassembled
Sensor type	PROFINET
Number of positions	4
Application	Data
No. of cable outlets	1
Shielded	yes
Coding	D

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	PROFINET
Signal type/category	PROFINET CAT5 (IEC 11801:2002), 100 Mbps

Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Material specifications

Flammability rating according to UL 94	V0

Seal material	FKM
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Brass, nickel-plated

Connection data

Connection technology

Connection method	Cable lug connection

Conductor connection

Connection method	Cable lug connection
Tightening torque	2 Nm ... 3 Nm (Installation-side)

Connector

Connection 1

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Head locking type	SPEEDCON
Coding	D

Connection 2

Head design	free cable end

Cable/line

Cable length	5 m

PROFINET robot CAT5 [93R]

Dimensional drawing	
Cable weight	55 kg/km
UL AWM Style	20233 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET robot CAT5 [93R]
Conductor structure	1x4xAWG22/19, S/TQ

Signal runtime	4.8 ns/m
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.5 mm
External cable diameter	6.5 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 1 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	300 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	5 x D
Torsion force	± 180 °/m
Torsion cycles	1000000
Shield attenuation	2.9 dB (with 1 MHz)
	5 dB (at 4 MHz)
	8.1 dB (at 10 MHz)
	10.4 dB (at 16 MHz)
	11.9 dB (at 20 MHz)
	15.5 dB (at 31.25 MHz)
	26.5 dB (at 62.5 MHz)
	41 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C ... 80 °C
	-40 °C ... 80 °C
Ambient temperature (installation)	-20 °C ... 60 °C

Environmental and real-life conditions

Ambient conditions	
	IP67 (When plugged in)

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1416263

https://www.phoenixcontact.com/us/products/1416263

Degree of protection	IP65 (When plugged in)
	IP65/IP67
Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)
	-40 °C ... 85 °C (without mechanical actuation)

Standards and regulations

M12

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

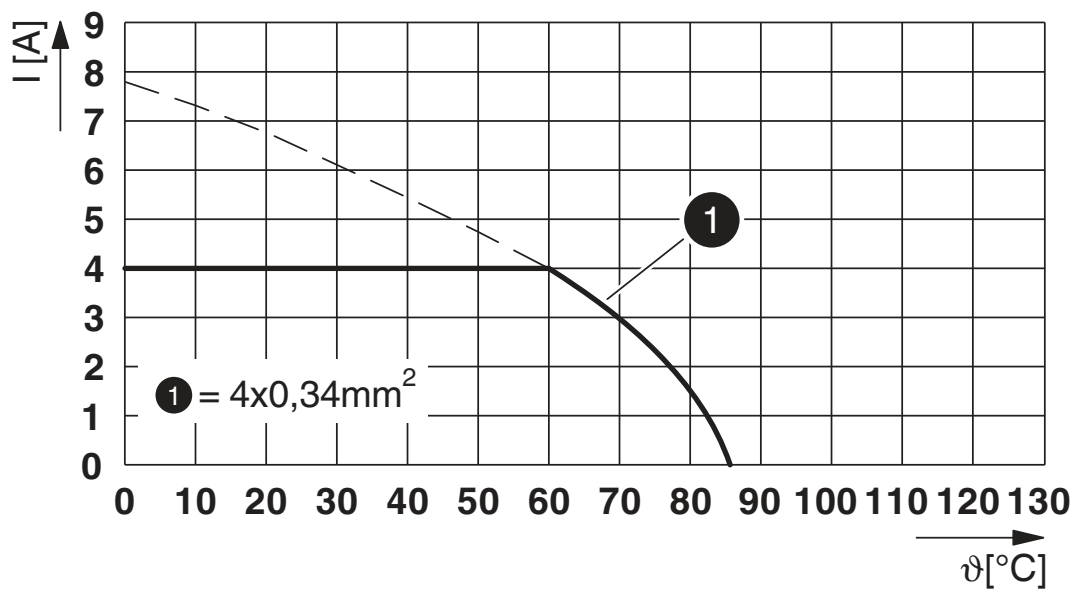# VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

Drawings

Dimensional drawing
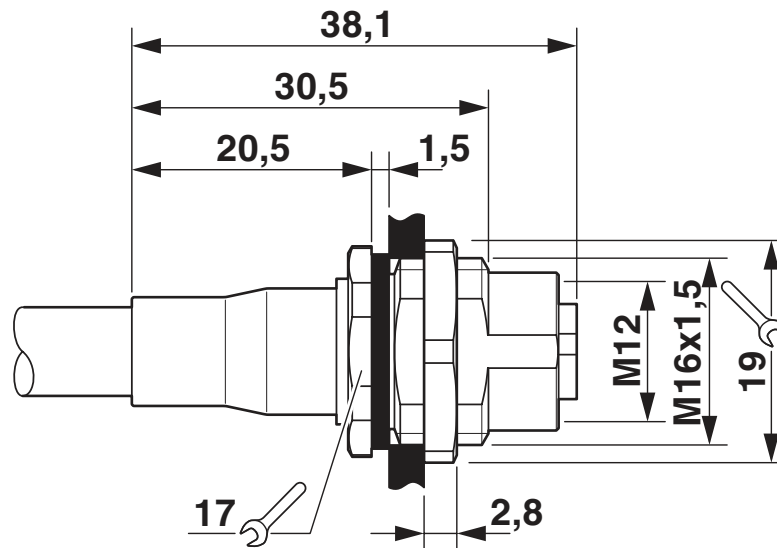
Dimensional drawing

Diagram

I = current strength, T = ambient temperature

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1416263

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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1416263

	EAC
	Approval ID: 19060508

Classifications

ECLASS

ECLASS-11.0	27060308
ECLASS-12.0	27060308
ECLASS-13.0	27060308

ETIM

ETIM 8.0	EC002599

UNSPSC

UNSPSC 21.0	26121600

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1416263

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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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1416263

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Accessories

SACC-M16-SEALING PLUG SET - Screw plug

1453368

https://www.phoenixcontact.com/us/products/1453368

Screw plug, Rear mounting, M16 x 1.5, Alternative product in accordance with RoHS II without Exemption 6c (Pb <0.1%) item no.: 1239800

PROT-M12 - Screw plug

1680539

https://www.phoenixcontact.com/us/products/1680539

An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

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PROT-M12 SH - Screw plug

1503302

https://www.phoenixcontact.com/us/products/1503302

An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

PROT-M12 FB - Screw plug

1555538

https://www.phoenixcontact.com/us/products/1555538

M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

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https://www.phoenixcontact.com/us/products/1416263

SACC-M16-SEAL CLM - Flat gasket

1430394

https://www.phoenixcontact.com/us/products/1430394

M16 flat gasket for M12 flush-type connectors with M16 fastening thread

CUTFOX 12 - Cable-cutting tool

1212128

https://www.phoenixcontact.com/us/products/1212128

Cable cutter, for copper and aluminum up to 12 mm diameter (up to 35 mm^2)

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

CUTFOX-S VDE - Diagonal cutter

1212207

https://www.phoenixcontact.com/us/products/1212207

Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

VS-CABLE-STRIP-VARIO - Stripping tool

1657407

https://www.phoenixcontact.com/us/products/1657407

Stripping tool, for the multi-level stripping of shielded cables

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

MICROFOX-SP-1 - Diagonal cutter

1212487

https://www.phoenixcontact.com/us/products/1212487

Electronic diagonal cutter, tapered head, without chamfer, with opening spring, non-reflective phosphate-treated surface, punched version

WIREFOX 4 - Stripping tool

1212156

https://www.phoenixcontact.com/us/products/1212156

Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

WIREFOX-E 4 - Stripping tool

1212704

https://www.phoenixcontact.com/us/products/1212704

Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

WIREFOX 10 - Stripping tool

1212150

https://www.phoenixcontact.com/us/products/1212150

Stripping tool, for cables and conductors from 0.02 - 10 mm^2, self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm^2 stranded/1.5 mm^2 solid, replaceable stripping blade

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WP-CTA POM 13,0 BK - Protective hose adapter

1422884

https://www.phoenixcontact.com/us/products/1422884

Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

WP-PA HF-HB 13,0 BK - Protective hose

3240839

https://www.phoenixcontact.com/us/products/3240839

Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: HB, inner diameter: 10 mm, Total length: 50 m

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

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https://www.phoenixcontact.com/us/products/1416263

SACC-M12MSD-4QO SH PN - Data connector

1411068

https://www.phoenixcontact.com/us/products/1411068

Data connector, PROFINET CAT5 (100 Mbps), 4-position, halogen-free, shielded, Plug straight M12, D, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

SACC-M12MRD-4Q SH PN - Data connector

1554539

https://www.phoenixcontact.com/us/products/1554539

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug angled M12, D, Insulation displacement connection, knurl material: Brass, nickel-plated, external cable diameter 4 mm ... 8 mm

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

SACC-M12FSD-4QO SH PN - Data connector

1411071

https://www.phoenixcontact.com/us/products/1411071

Data connector, PROFINET CAT5 (100 Mbps), 4-position, halogen-free, shielded, Socket straight M12, D, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

SACC-M12FRD-4Q SH PN - Data connector

1554542

https://www.phoenixcontact.com/us/products/1554542

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, D, Insulation displacement connection, knurl material: Brass, nickel-plated, external cable diameter 4 mm ... 8 mm

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

SACC-CC-4QO SH PN - Conductor connectors

1414416

https://www.phoenixcontact.com/us/products/1414416

Cable connector, PROFINET CAT5 (100 Mbps), 4-pos., halogen-free, shielded, insulation displacement connection, housing material: zinc die-cast, nickel-plated, outer cable diameter of 5 mm ... 9.7 mm

SACC-M12MSD-4PL SH PN - Connector

1424682

https://www.phoenixcontact.com/us/products/1424682

Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12, D, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

SACC-M12MRD-4PL SH PN - Connector

1424684

https://www.phoenixcontact.com/us/products/1424684

Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug angled M12, D, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

SACC-M12FSD-4PL SH PN - Connector

1424683

https://www.phoenixcontact.com/us/products/1424683

Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket straight M12, D, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

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SACC-M12FRD-4PL SH PN - Connector

1424685

https://www.phoenixcontact.com/us/products/1424685

Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, D, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

SACC-M12MSD-4CT-CM SH PN - Data connector

1422846

https://www.phoenixcontact.com/us/products/1422846

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug straight M12, D, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

SACC-M12MRD-4CT-CM SH PN - Data connector

1422847

https://www.phoenixcontact.com/us/products/1422847

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Plug angled M12, D, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

SACC-M12FSD-4CT-CM SH PN - Data connector

1422848

https://www.phoenixcontact.com/us/products/1422848

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket straight M12, D, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

SACC-M12FRD-4CT-CM SH PN - Data connector

1422849

https://www.phoenixcontact.com/us/products/1422849

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, D, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 4.5 mm ... 7.5 mm, without crimp contacts

VS-PN-RJ45-5-Q/IP20 - RJ45 connector

1658435

https://www.phoenixcontact.com/us/products/1658435

RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 4, 100 Mbps, CAT5, material: Plastic, connection method: Insulation displacement connection, cable outlet: straight, color: traffic grey A RAL 7042, PROFINET

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

CUC-IND-C1ZNI-S/R4IP8 - RJ45 connector

1421126

https://www.phoenixcontact.com/us/products/1421126

RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5, material: Metal, connection method: Insulation displacement connection, connection cross section: AWG 23- 22, cable outlet: straight, color: green, Ethernet/PROFINET

CUC-IND-C1ZNI-T/R4IP8 - RJ45 connector

1421128

https://www.phoenixcontact.com/us/products/1421128

RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5, material: Metal, connection method: Insulation displacement connection, connection cross section: AWG 23- 22, cable outlet: angled, Ethernet/PROFINET

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

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CUC-IND-C1ZNI-B/R4IP8 - RJ45 connector

1421127

https://www.phoenixcontact.com/us/products/1421127

RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5, material: Metal, connection method: Insulation displacement connection, connection cross section: AWG 23- 22, cable outlet: angled, Ethernet/PROFINET

CUC-V14-C1ZNI-S/R4P8 - RJ45 connector

1422664

https://www.phoenixcontact.com/us/products/1422664

RJ45 connector, degree of protection: IP65/IP67, number of positions: 8, 1 Gbps, CAT5, material: Metal, connection method: IDC fast connection, connection cross section: AWG 23- 22, cable outlet: straight, Ethernet

VS-OE-M12FSBP-93R-LI/2,0 - Device connector, rear mounting

1416263

https://www.phoenixcontact.com/us/products/1416263

CUC-V14-C1ZNI-T/R4P8 - RJ45 connector

1422667

https://www.phoenixcontact.com/us/products/1422667

RJ45 connector, degree of protection: IP65/IP67, number of positions: 8, 1 Gbps, CAT5, material: Metal, connection method: IDC fast connection, connection cross section: AWG 23- 22, cable outlet: angled, Ethernet

CUC-V14-C1ZNI-B/R4P8 - RJ45 connector

1422665

https://www.phoenixcontact.com/us/products/1422665

RJ45 connector, degree of protection: IP65/IP67, number of positions: 8, 1 Gbps, CAT5, material: Metal, connection method: IDC fast connection, connection cross section: AWG 23- 22, cable outlet: angled, Ethernet