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

1416263

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

PHŒNIX CONTACT

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.

Device connector rear mounting, PROFINET CAT5 (100 Mbps) CAT5 (100 Mbps), 4-position halogen-free, green RAL 6018, shielded, Socket, straight, M12, coding: D, on free cable end, Rear mounting, cable length: 2 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	85444290
Country of origin	DE

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

1416263

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

Technical data

Notes

Notes on operation	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
Application	Data
Sensor type	PROFINET
Number of positions	4
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

Connector

Connection 1

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

Connection 2

Head design	free cable end

Cable/line

Cable length	2 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	6.50 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. 1.00 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	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	5 x D
Smallest bending radius, fixed installation	33 mm
Dynamic load capacity (torsion)	Torsion: ±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

Degree of protection	IP67 (When plugged in)
	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

Diagram

$1 = 4 \times 0{,}34\,mm^2$
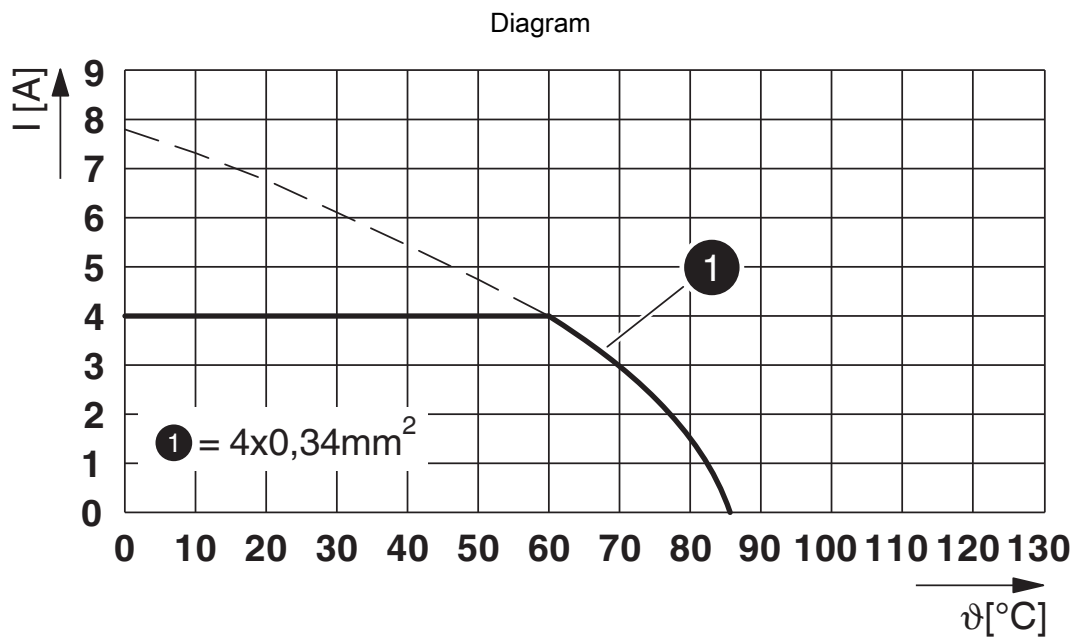
I = current strength, T = ambient temperature

Approvals

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

	EAC
EHC	Approval ID: 19060508

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

1416263

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

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001262

UNSPSC

UNSPSC 21.0	26121600

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

1416263

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

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)
SCIP	3c822d7e-82a8-47da-8638-3d0bddda6af3

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

1416263

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

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

1416263

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

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

1416263

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

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

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

1416263

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

WP-PA HF 13,0 BK - Protective hose

3240681

https://www.phoenixcontact.com/us/products/3240681

Protective hose, material: PA 6, UV-resistant: yes, flexible, degree of protection: IP68, color: black, flammability rating in acc. with UL 94: V0, inner diameter: 10 mm, Total length: 50 m

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

1416263

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, coding: 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, coding: 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, coding: 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, coding: 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 connector

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, coding: 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, coding: 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, coding: 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-M12FRD-4PL SH PN - Connector

1424685

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

Connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, coding: 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, coding: 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, coding: 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, coding: 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, coding: 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

1416263

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

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

1416263

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

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