

1237433

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Device connector rear mounting, Ethernet CAT6_A (10 Gbps) CAT6_A, 8-position, PUR, water blue RAL 5021, shielded, Socket, straight, M12-SPEEDCON, coding: X, on free cable end, Rear mounting, M16 x 1.5, Cable connection, cable length: 0.5 m, Ethernet 10 Gbit, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

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	1237433
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	ABQDGI
GTIN	4063151383442
Weight per piece (including packing)	64.4 g
Weight per piece (excluding packing)	47.8 g
Country of origin	DE



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Technical data

Notes

otes	
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.
Order information:	Lock nut is included in the scope of delivery
Safety note	
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	 WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	 WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	 The products are suitable for applications in plant, controller, and electrical device engineering.
	 When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	 Assembled products may not be manipulated or improperly opened.
	 Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
	 When using the product in direct connection with third-party manufacturers, the user is responsible.
	 For operating voltages > 50 V AC, conductive connector housings must be grounded
	 Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	Observe the corresponding technical data. You will find information: o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact
	 Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory

section of the product at phoenixcontact.com/products

• Ensure that the protective or functional ground has been



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	properly connected.
	 VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/o connector
	 The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).
roduct properties	
Product type	Data cable preassembled
Application	Railway applications
Sensor type	Ethernet
Number of positions	8
No. of cable outlets	1
Shielded	yes
Coding	X
Thread type	M12
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3
nterfaces	
Bus system	Ethernet
Signal type/category	Ethernet CAT6 _A , 10 Gbps
lectrical properties	
Rated surge voltage	0.8 kV
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	50 V AC
	60 V DC
Nominal current I _N	0.5 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Transmission characteristics (category)	CAT6 _A
Mechanical properties	
Mechanical data	
Insertion/withdrawal cycles	≥ 100
Astorial appoifications	
laterial specifications	
Flammability rating according to UL 94	V0
·	V0 FKM



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Contact surface material	Au
Contact carrier material	PPA
Material for screw connection	Zinc die-cast, nickel-plated
Outer sheath, material	PUR

Connection data

Connection technology

Connection method	Cable connection
Conductor connection	
Contact connection type	Crimp contacts
Connection method	Cable 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	Х

Connection 2

Head design	free cable end
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Cable/line

Cable length	0.5 m
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Ethernet 10 Gbit [94F]

Dimensional drawing



Cable weight	42 kg/km
UL AWM Style	20963 (80°C/30 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet 10 Gbit [94F]
Conductor structure	4x2xAWG26/7; S/FTP
Signal runtime	5.13 ns/m



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Conductor structure signal line	7x 0.16 mm
AWG signal line	26
Conductor cross section	4x 2x 0.14 mm²
Wire diameter incl. insulation	1.04 mm
External cable diameter	6.40 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Thickness, outer sheath	0.65 mm
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined foil
Overall twist	4 pairs for core
Optical shield covering	70 %
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 290.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Cable capacity	47 nF/km
Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Smallest bending radius, fixed installation	26 mm
Smallest bending radius, movable installation	52 mm
Tensile strength	≤ 100 N
Near end crosstalk attenuation (NEXT)	75.3 dB (with 1 MHz)
	66.3 dB (at 4 MHz)
	61.8 dB (at 8 MHz)
	60.3 dB (at 10 MHz)
	57.2 dB (at 16 MHz)
	55.8 dB (at 20 MHz)
	54.3 dB (at 25 MHz)
	52.8 dB (at 31.25 MHz)
	48.4 dB (at 62.5 MHz)
	45.3 dB (at 100 MHz)
	40.8 dB (at 200 MHz)
	39.3 dB (at 250 MHz)
	38.1 dB (at 300 MHz)
	38.1 dB (at 400 MHz)
	38.1 dB (at 500 MHz)
	72.3 dB (with 1 MHz)



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Power-summated near end crosstalk attenuation (PSNEXT)	63.3 dB (at 4 MHz)
	58.8 dB (at 8 MHz)
	57.3 dB (at 10 MHz)
	54.2 dB (at 16 MHz)
	52.8 dB (at 20 MHz)
	51.3 dB (at 25 MHz)
	49.9 dB (at 31.25 MHz)
	45.4 dB (at 62.5 MHz)
	42.3 dB (at 100 MHz)
	37.8 dB (at 200 MHz)
	36.3 dB (at 250 MHz)
	35.1 dB (at 300 MHz)
	33.3 dB (at 400 MHz)
	31.8 dB (at 500 MHz)
Return attenuation (RL)	20 dB (with 1 MHz)
	23 dB (at 4 MHz)
	24.5 dB (at 8 MHz)
	25 dB (at 10 MHz)
	25 dB (at 16 MHz)
	25 dB (at 20 MHz)
	24.2 dB (at 25 MHz)
	23.3 dB (at 31.25 MHz)
	20.7 dB (at 62.5 MHz)
	19 dB (at 100 MHz)
	16.4 dB (at 200 MHz)
	15.6 dB (at 250 MHz)
	15.6 dB (at 300 MHz)
	15.6 dB (at 400 MHz)
	15.6 dB (at 500 MHz)
Shield attenuation	3.1 dB (with 1 MHz)
	5.7 dB (at 4 MHz)
	8 dB (at 8 MHz)
	8.9 dB (at 10 MHz)
	11.2 dB (at 16 MHz)
	12.6 dB (at 20 MHz)
	14.1 dB (at 25 MHz)
	15.8 dB (at 31.25 MHz)
	22.5 dB (at 62.5 MHz)
	28.7 dB (at 100 MHz)
	41.4 dB (at 200 MHz)
	46 6 dB (at 250 MHz)
	46.6 dB (at 250 MHz)
	51.4 dB (at 300 MHz)



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	≥ 80.00 dB (at 30 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
	in accordance with UN ECE-R 118.03
Resistance to oil	in accordance with DIN EN 60811-2-1
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)
	-20 °C 80 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C 80 °C

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP67
	IP65
	IP65/IP67
Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
UL Type Rating	Type 4 (indoor use only)

Standards and regulations

M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-109
Standard designation	Shock, vibration
Standards/specifications	EN 50155

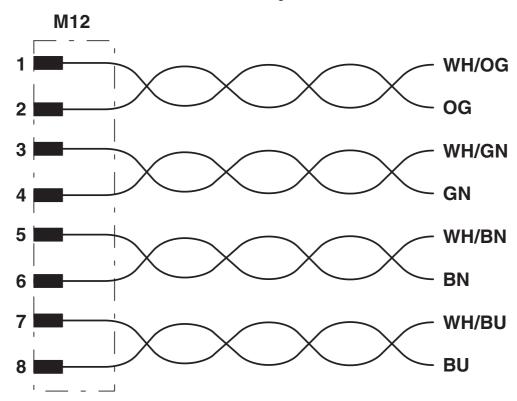


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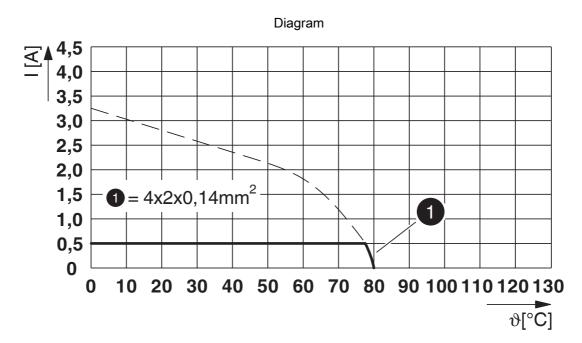
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Drawings

Circuit diagram



Contact assignment of the M12 plug

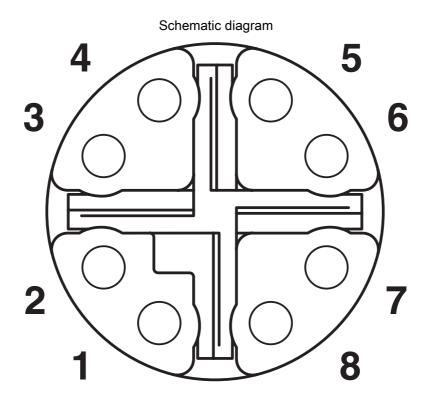


I = current strength, T = ambient temperature



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M12 socket pin assignment, 8-pos, view of socket side



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Classifications

ECLASS

ECLASS-11.0	27440103
ECLASS-12.0	27440103
ECLASS-13.0	27440103

ETIM

ETIM 9.0	EC003570	



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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%



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Accessories

PROT-M12 - Screw plug

1680539

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



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

PROT-M12 SH - Screw plug

1503302

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



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



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PROT-M12 MS-MX - Sealing cap

1239065

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Sealing cap, Item is lead-free in accordance with RoHS II without Exemption 6c (Pb < 0.1 %)

PROT-M12 FB - Screw plug

1555538

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



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PROT-M12 MS-PA-CHAIN - Screw plug

1430899

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M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



CUTFOX 12 - Cable-cutting tool

1212128

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Cable cutter, for copper and aluminum up to 12 mm diameter (up to 35 mm²)



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CUTFOX-S VDE - Diagonal cutter

1212207

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

VS-CABLE-STRIP-VARIO - Stripping tool

1657407

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





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MICROFOX-SP-1 - Diagonal cutter

1212487

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

WIREFOX 4 - Stripping tool

1212156

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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



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WIREFOX-E 4 - Stripping tool

1212704

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Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 $\,$ mm², self-adjusting, stripping length of up to 18 $\,$ mm, cutting capacity of up to 10 $\,$ mm² stranded/1.5 $\,$ mm² solid, replaceable stripping blade

WIREFOX 10 - Stripping tool

1212150

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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

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

WP-PA HF 13,0 BK - Protective hose

3240681

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



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

3240839

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

SACC-M12MSX-8QO SH ETH - Data connector

1411043

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Data connector, Ethernet $CAT6_A$ (10 Gbps), 8-position, halogen-free, shielded, Plug straight M12, coding: X, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm



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SACC-M12FSX-8QO SH ETH - Data connector

1414586

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Data connector, Ethernet $CAT6_A$ (10 Gbps), 8-position, halogen-free, shielded, Socket straight M12, coding: X, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

SACC-CC-8QO SH ETH - Conductor connector

1414412

https://www.phoenixcontact.com/in/products/1414412



Cable connector, Ethernet CAT6 $_{\rm A}$ (10 Gbps), 8-pos., halogen-free, shielded, insulation displacement connection, housing material: zinc die-cast, nickel-plated, outer cable diameter of 5 mm ... 9.7 mm



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VS-08-M12MS-10G-P SCO - Data connector

1417430

https://www.phoenixcontact.com/in/products/1417430



Data connector, Ethernet CAT6_A (10 Gbps), 8-position, shielded, Plug straight M12 SPEEDCON, coding: X, Piercecon® fast connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

VS-08-M12MR-10G-P SCO - Data connector

1417443

https://www.phoenixcontact.com/in/products/1417443



Data connector, Ethernet CAT6 $_{\rm A}$ (10 Gbps), 8-position, shielded, Plug angled M12 SPEEDCON, coding: X, Piercecon® fast connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm



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SACC-M12MSX-8CT-CL SH - Data connector

1422844

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Data connector, Ethernet ${\rm CAT6_A}$ (10 Gbps), PROFINET ${\rm CAT6_A}$ (10 Gbps), 8-position, shielded, Plug straight M12, coding: X, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 6.5 mm ... 10 mm, without crimp contacts

SACC-M12MRX-8CT-CL SH - Data connector

1422845

https://www.phoenixcontact.com/in/products/1422845



Data connector, Ethernet CAT6 $_{\rm A}$ (10 Gbps), PROFINET CAT6 $_{\rm A}$ (10 Gbps), 8-position, shielded, Plug angled M12, coding: X, Crimp connection, knurl material: Zinc die-cast, tin-plated, external cable diameter 6.5 mm ... 10 mm, without crimp contacts



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VS-08-RJ45-10G/Q - RJ45 connector

1419001

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RJ45 connector, design: RJ45, degree of protection: IP20, number of positions: 8, 10 Gbps, CAT6_A, material: Plastic, connection method: Insulation displacement connection, connection cross section: AWG 26- 24, cable outlet: straight, color: black, Ethernet

CUC-IND-C1ZNI-S/R4IE8 - RJ45 connector

1421607

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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 26- 24, cable outlet: straight, color: green, Ethernet



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CUC-IND-C1ZNI-T/R4IE8 - RJ45 connector

1421877

https://www.phoenixcontact.com/in/products/1421877



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 26- 24, cable outlet: angled, Fthernet

CUC-IND-C1ZNI-B/R4IE8 - RJ45 connector

1421876

https://www.phoenixcontact.com/in/products/1421876



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 26- 24, cable outlet: angled, Ethernet



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CUC-V06-C1PGY-S/R4CEA:1 - RJ45 connector

1414406

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RJ45 connector, design: RJ45, degree of protection: IP67, number of positions: 2, 10 Gbps, CAT6_A, material: Plastic, connection method: Crimp connection, connection cross section: AWG 24- 27, cable outlet: straight, color: gray, Ethernet/PROFINET

CUC-V06-C1PBK-S/R4CEA:1 - RJ45 connector

1414410

https://www.phoenixcontact.com/in/products/1414410



RJ45 connector, design: RJ45, degree of protection: IP67, number of positions: 8, 10 Gbps, $CAT6_A$, material: Plastic, connection method: Crimp connection, connection cross section: AWG 24- 27, cable outlet: straight, color: black, Ethernet/PROFINET



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VS-PPC-C1-RJ45-POBK-8I10G - RJ45 connector

1422205

https://www.phoenixcontact.com/in/products/1422205



RJ45 connector, degree of protection: IP65/IP67, number of positions: 8, 10 Gbps, CAT6_A, material: Plastic, connection method: Crimp connection, connection cross section: AWG 27- 24, cable outlet: straight, color: black, Ethernet

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