

Network cable - VS-M12FSBP-OE-94B-LI/5,0 - 1407877

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Assembled Ethernet cable, shielded, 4-pair, AWG 26 stranded (7-wire), RAL 5021 (sea blue), M12 flush-type socket, rear/screw mounting with M16 thread to free cable end, line, length 5 m

Your advantages

- Pre-assembled 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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 475402
GTIN	4046356475402

Technical data

Dimensions

Length of cable	5 m
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Ambient conditions

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

General data

Note	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if
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Technical data

General data

	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.
Rated current at 40°C	2 A
Rated voltage	30 V
Rated surge voltage	0.8 kV
Number of positions	8
Overvoltage category	II
Degree of pollution	3
Alternative short product description	Ethernet cable
Contact material	CuZn
Contact surface material	Ni/Au
Degree of protection	IP65/IP67

Characteristics head 1

Coding	A (Standard)
Shielded	yes
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Type type, plug side	Flush-type socket, straight
Type type, socket side	free cable end

Standards and Regulations

Flammability rating according to UL 94	V0
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Cable

Cable type	Ethernet flexible CAT5, 4-pair
Cable type (abbreviation)	94B
UL AWM style	20963 (80°C/30 V)
Cable structure	4x2xAWG26/7; SF/UTP
Conductor cross section	4x 2x 0.14 mm ²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.96 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1.05 mm
External cable diameter D	6.4 mm ±0.2 mm

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Technical data

Cable

Minimum bending radius, fixed installation	4 x D	
Minimum bending radius, flexible installation	8 x D	
Tensile strength GRP	≤ 100 N	
Cable weight	47 kg/km	
Outer sheath, material	PUR	
Material conductor insulation	Foamed PE	
Conductor material	Bare Cu litz wires	
Insulation resistance	≥ 500 MΩ*km	
Loop resistance	≤ 290.00 Ω/km	
Cable capacity	48 nF/km (at 1 kHz)	
Wave impedance	100 Ω ±5 Ω (at 100 MHz)	
Near end crosstalk attenuation (NEXT)	71.3 dB (with 1 MHz)	
	62.3 dB (at 4 MHz)	
	56.3 dB (at 10 MHz)	
	53.2 dB (at 16 MHz)	
	51.8 dB (at 20 MHz)	
	48.9 dB (at 31.25 MHz)	
	44.4 dB (at 62.5 MHz)	
	41.3 dB (at 100 MHz)	
	Power-summated near end crosstalk attenuation (PSNEXT)	62.3 dB (with 1 MHz)
		53.3 dB (at 4 MHz)
47.3 dB (at 10 MHz)		
44.2 dB (at 16 MHz)		
42.8 dB (at 20 MHz)		
39.9 dB (at 31.25 MHz)		
35.4 dB (at 62.5 MHz)		
32.3 dB (at 100 MHz)		
Attenuation	3.2 dB (with 1 MHz)	
	6 dB (at 4 MHz)	
	9.5 dB (at 10 MHz)	
	12.1 dB (at 16 MHz)	
	13.6 dB (at 20 MHz)	
	17.1 dB (at 31.25 MHz)	
	24.8 dB (at 62.5 MHz)	
	32 dB (at 100 MHz)	
	Return loss (RL)	23 dB (at 4 MHz)
		24.1 dB (at 8 MHz)
25 dB (at 10 MHz)		
25 dB (at 16 MHz)		
25 dB (at 20 MHz)		

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Technical data

Cable

	23.6 dB (at 31.25 MHz)
	21.5 dB (at 62.5 MHz)
	20.1 dB (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	≤ 100.00 mΩ/m (at 10 MHz)
Nominal voltage, cable	≤ 100 V
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	according to IEC 60332-1-2
Halogen-free	according to IEC 60754-1
Resistance to oil	according to 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
Ambient temperature (storage/transport)	-20 °C ... 80 °C

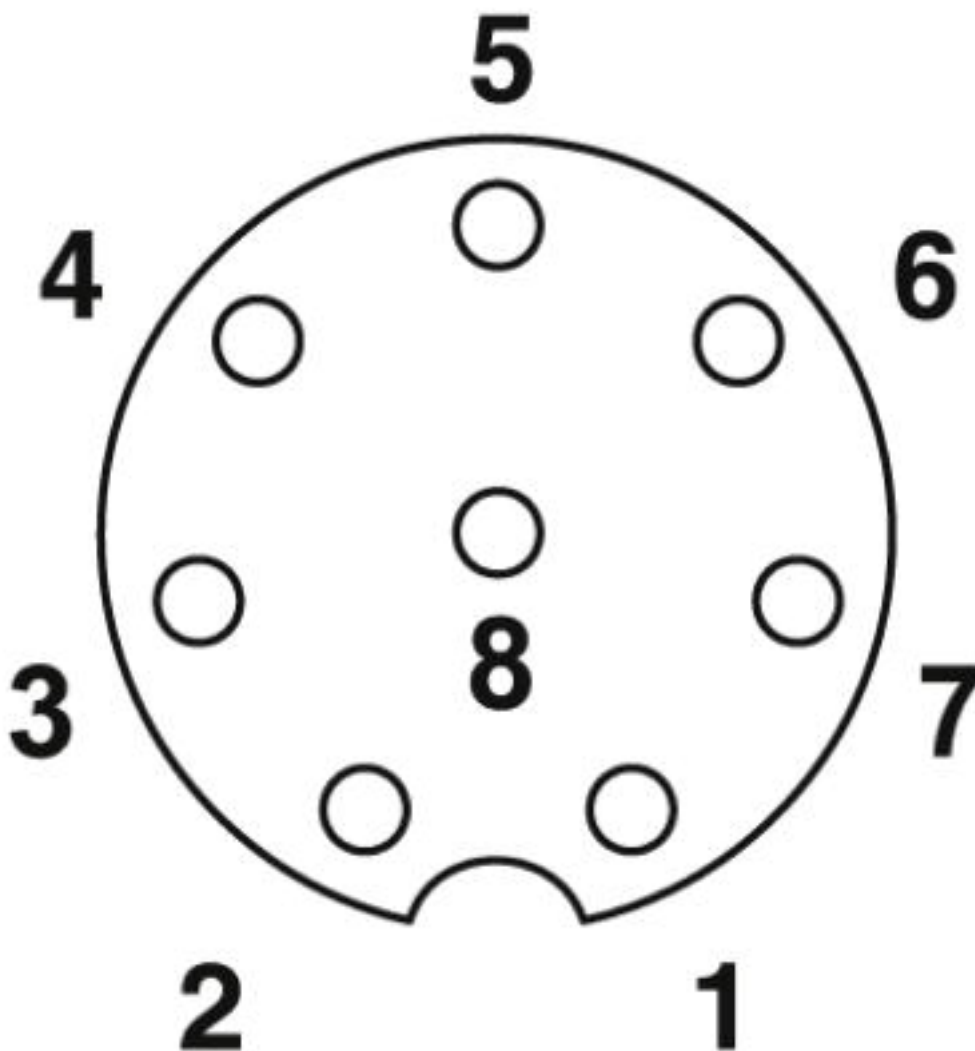
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Network cable - VS-M12FSBP-OE-94B-LI/5,0 - 1407877

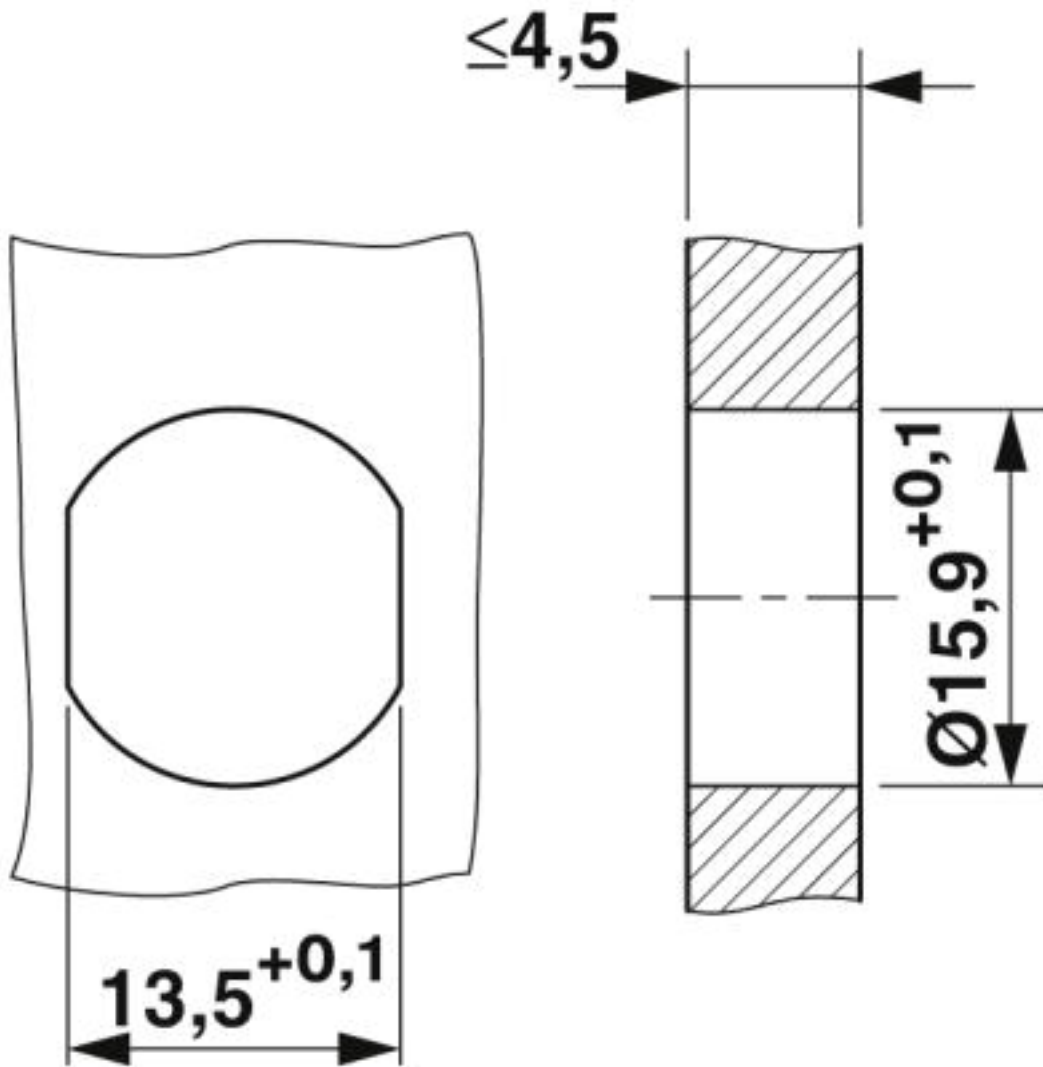
Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

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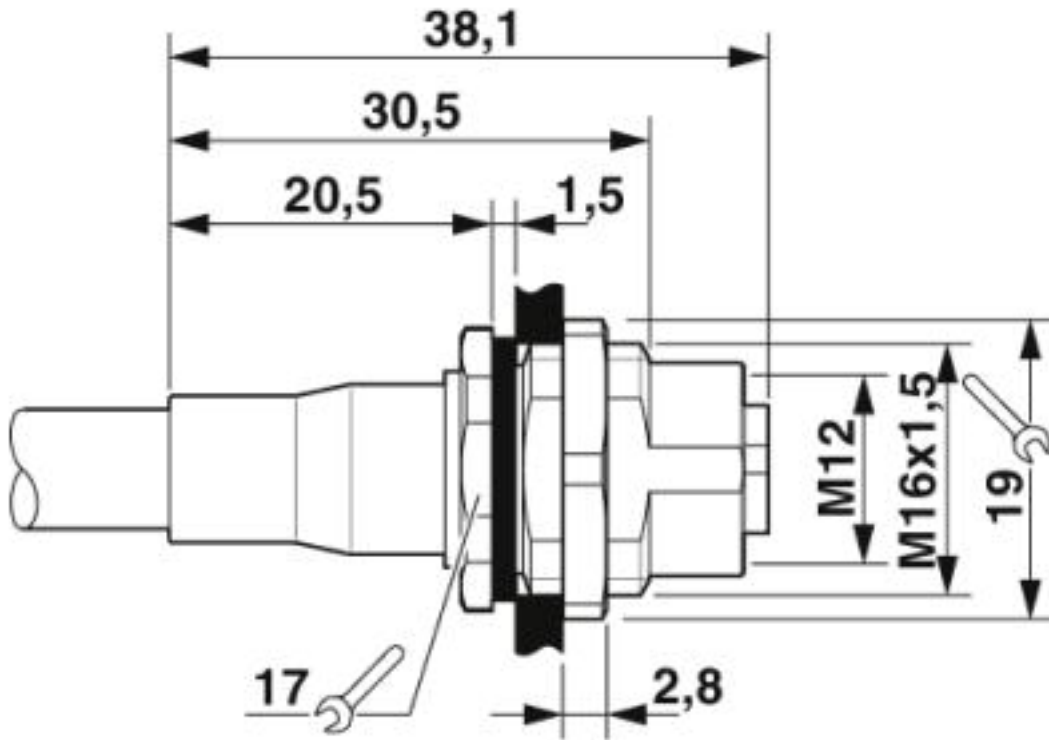
Dimensional drawing



Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

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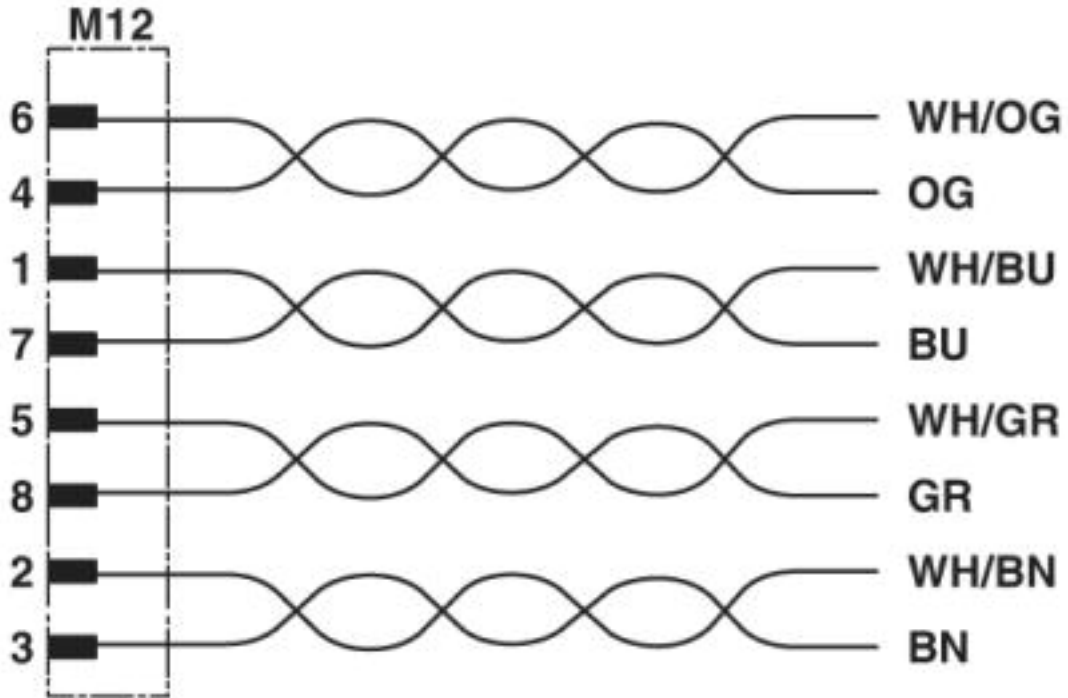
Dimensional drawing



M12 flush-type connector

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Circuit diagram



Contact assignment of the M12 plug and the M12 socket

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Cable cross section



Ethernet flexible CAT5, 4-pair [94B]

Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 4.0	24010400
eCl@ss 4.1	24010400
eCl@ss 5.0	19030300
eCl@ss 5.1	19030300
eCl@ss 6.0	27061800
eCl@ss 7.0	27060308
eCl@ss 8.0	27060308
eCl@ss 9.0	27060308

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Classifications

ETIM

ETIM 3.0	EC000830
ETIM 4.0	EC002599
ETIM 5.0	EC002599
ETIM 6.0	EC001262
ETIM 7.0	EC001262

UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	31261501
UNSPSC 13.2	26121604
UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC		19060508
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Accessories

Accessories

Circular connector (cable-side)

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Accessories

Connector - SACC-MS-8QO SH ETH SCO - 1421679



Connector, Ethernet CAT5 (1 Gbps), 8-position, halogen-free, shielded, Plug straight M12 SPEEDCON, Coding: A, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

Bus system connector - SACC-M12MR-8Q SH - 1553653



Bus system connector, Ethernet CAT5 (1 Gbps), 8-position, shielded, Plug angled M12, Coding: A, Insulation displacement connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

Connector - SACC-FS-8QO SH ETH SCO - 1421680



Connector, Ethernet CAT5 (1 Gbps), 8-position, halogen-free, shielded, Socket straight M12 SPEEDCON, Coding: A, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

Bus system connector - SACC-M12FR-8Q SH - 1553666



Bus system connector, Ethernet CAT5 (1 Gbps), 8-position, shielded, Socket angled M12, Coding: A, Insulation displacement connection, knurl material: Nickel-plated brass, external cable diameter 4 mm ... 8 mm

Corrugated pipe

Protective hose - WP-PA HF 13,0 BK - 3240681



Polyamide protective hose, inflammability class V0, UV resistant

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Accessories

Protective hose - WP-PA HF-HB 13,0 BK - 3240839



Polyamide protective hose, inflammability class HB, UV resistant

Cutting tools

Cable-cutting tool - CUTFOX 12 - 1212128



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

Diagonal cutter - CUTFOX-S VDE - 1212207



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

Data plug

RJ45 connector - VS-08-RJ45-5-Q/IP20 - 1656725



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: traffic grey A RAL 7042

RJ45 connector - VS-08-RJ45-5-Q/IP20 BK - 1658008



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: PA, connection method: IDC fast connection, connection cross section: AWG 26- 23, cable outlet: straight, color: black

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Accessories

RJ45 connector - CUC-IND-C1ZNI-S/R4IE8 - 1421607



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: Zinc die-cast, connection method: IDC fast connection, connection cross section: AWG 26- 24, cable outlet: straight, color: green

RJ45 connector - CUC-IND-C1ZNI-T/R4IE8 - 1421877



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: Zinc die-cast, connection method: IDC fast connection, connection cross section: AWG 26- 24, cable outlet: angled

RJ45 connector - CUC-IND-C1ZNI-B/R4IE8 - 1421876



RJ45 connector, degree of protection: IP20, number of positions: 8, 1 Gbps, CAT5 (IEC 11801:2002), material: Zinc die-cast, connection method: IDC fast connection, connection cross section: AWG 26- 24, cable outlet: angled

RJ45 connector - CUC-V06-C1PGY-S/R4CE8:1 - 1414383



RJ45 connector, degree of protection: IP67, number of positions: 8, 1 Gbps, CAT6, material: PA, connection method: Crimp connection, connection cross section: AWG 27- 24, cable outlet: straight, color: gray

RJ45 connector - CUC-V06-C1PBK-S/R4CE8:1 - 1414408



RJ45 connector, degree of protection: IP67, number of positions: 8, 1 Gbps, CAT6, material: PA, connection method: Crimp connection, connection cross section: AWG 24- 27, cable outlet: straight, color: black

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Accessories

RJ45 connector - CUC-V14-C1ZNI-S/R4E8 - 1422661



Push-pull connector (version 14), die-cast zinc, with RJ45 connector insert, 8-pos., with IDC fast connection technology, for 1 and 7-wire cores, 26 ... 24 AWG, for cable diameter of 5.5 mm ... 10 mm

RJ45 connector - CUC-V14-C1ZNI-T/R4E8 - 1422663



Push-pull connector (version 14), die-cast zinc, with RJ45 connector insert, 8-pos., with IDC fast connection technology, for 1 and 7-wire cores, 26 ... 24 AWG, for cable diameter of 5.5 mm ... 10 mm

RJ45 connector - CUC-V14-C1ZNI-B/R4E8 - 1422662



Push-pull connector (version 14), die-cast zinc, with RJ45 connector insert, 8-pos., with IDC fast connection technology, for 1 and 7-wire cores, 26 ... 24 AWG, for cable diameter of 5.5 mm ... 10 mm

RJ45 connector - VS-PPC-C1-RJ45-POBK-PG9-8Q5 - 1657834



RJ45 connector, IP67, with push/pull interlocking, plastic housing, 1 Gbps, 8-pos., QUICKON fast connection technology, for 26 ... 24 AWG 1-wire and 7-wire conductors

Electronics pliers

Diagonal cutter - MICROFOX-SP-1 - 1212487



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

Stripping tool

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Accessories

Stripping tool - WIREFOX 4 - 1212156



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

Stripping tool - WIREFOX-E 4 - 1212704



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

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 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

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407



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

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884



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

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