

NBC-M 8MS/ 5,0-93B/R4AC - Network cable



1407354

<https://www.phoenixcontact.com/us/products/1407354>

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Network cable, Ethernet (100 Mbps), PROFINET (100 Mbps), EtherCAT® (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded, Plug straight M8, coding: A / IP67, on Plug straight RJ45 / IP20, cable length: 5 m

Commercial data

Item number	1407354
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF02
Product key	AF1BJI
GTIN	4046356774826
Weight per piece (including packing)	340 g
Weight per piece (excluding packing)	340 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Notes

General	Further products with variable cable type and variable cable length can be found in the accessories section
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Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	Ethernet
Number of positions	4
Shielded	yes
Coding	A

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet, 100 Mbps
	PROFINET, 100 Mbps
	EtherCAT®, 100 Mbps

Signaling

Status display	no
Status display present	no

Electrical properties

Nominal voltage U_N	30 V AC
	30 V DC
Nominal current I_N	1 A
Transmission medium	Copper
Transmission speed	100 Mbps

Connector

Connection 1

Type	Plug straight M8 / IP67
Number of positions	4
Coding type	A (Standard)
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ

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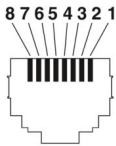


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Tightening torque	0.2 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C


Connection 2

Dimensional drawing	 <p>Connector pin assignment plug RJ45</p>
Type	RJ45, straight
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps EtherCAT® CAT5 (IEC 11801)
Insertion/withdrawal cycles	≥ 750
Insulation resistance	≥ 100 MΩ
Overvoltage category	I
Degree of pollution	2
Material Contact	CuSn
Material Contact surface	Ni/Au
Material Contact carrier	PA
Material Housing	PA
Color (Housing)	black
Flammability rating according to UL 94	V2
Degree of protection	IP20
Ambient temperature (operation)	-25 °C ... 80 °C

Cable/line

Cable length	5 m
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PROFINET PVC stranded CAT5 [93B]

Dimensional drawing	
UL AWM Style	21695 (80 °C / 600 V)
Number of positions	4
Shielded	yes

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Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
AWG signal line	22
Conductor cross section	4x 0.34 mm ²
Wire diameter incl. insulation	1.5 mm ±0.1 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
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 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	4 x D
Minimum bending radius, flexible installation	8 x D
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) UL 1685 (CSA FT 4) UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
Resistance to oil	OIL RES I according to UL 2256
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -10 °C ... 70 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65 (M8 connectors) IP67 (M8 connectors) IP20 (RJ45 connector)
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (M8 connectors) -25 °C ... 60 °C (RJ45 connector)

Standards and regulations

M8

Standard designation	M8 connector
Standards/specifications	IEC 61076-2-104

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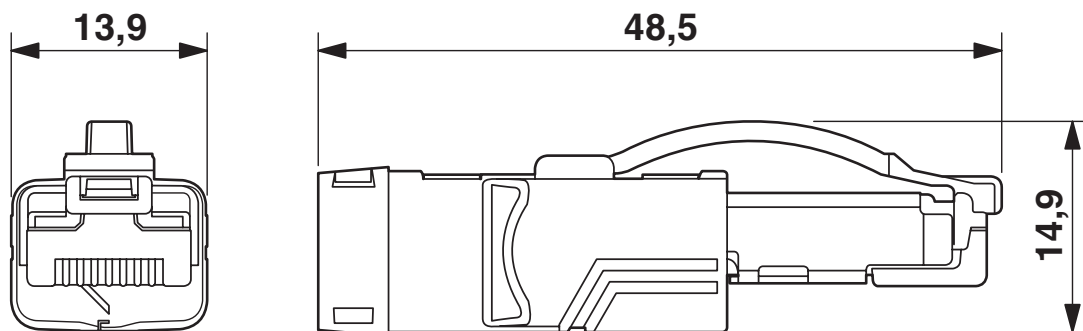
Drawings

Dimensional drawing



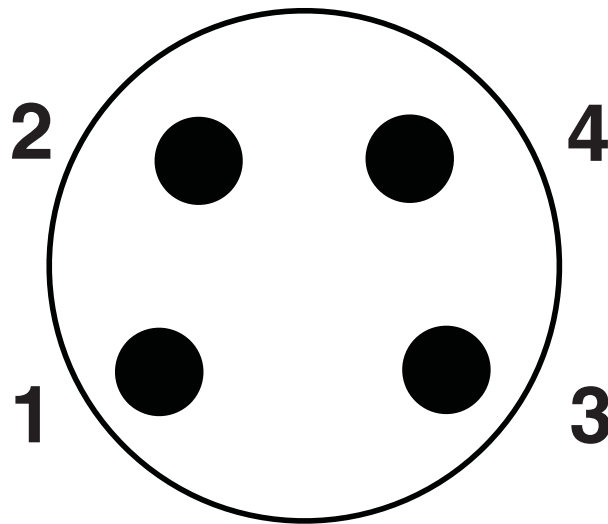
M8 x 1 male plug, straight version

Dimensional drawing



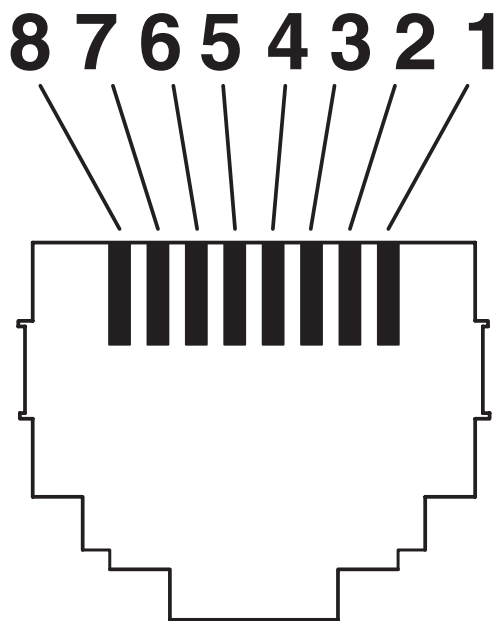
RJ45 connector, IP20

Schematic diagram



Pin assignment M8 plug, 4-pos., view male side

Schematic diagram

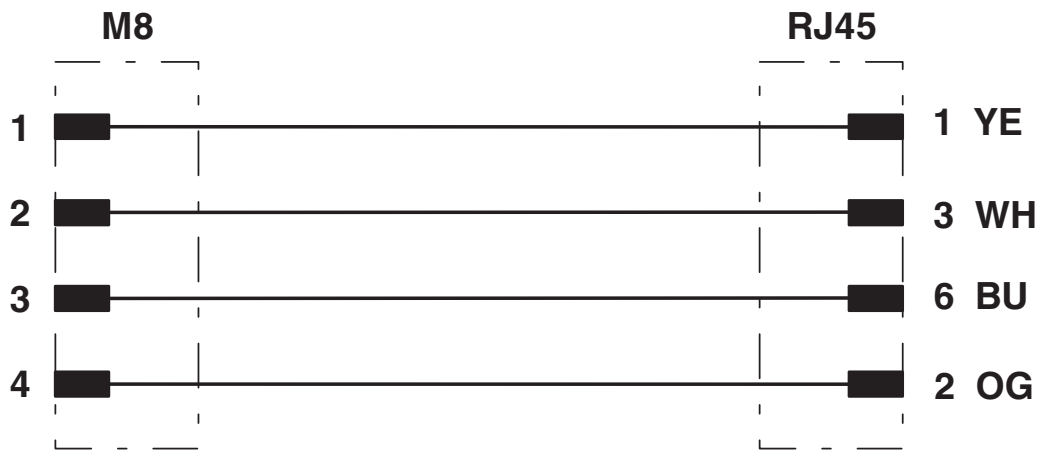


Connector pin assignment plug RJ45

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Circuit diagram



Contact assignment of the M8 and RJ45 plug

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Approvals

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EAC-RoHS

Approval ID: RU D-DE.HB35.B.00387

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Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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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%
EF3.0 Climate Change	
CO2e kg	3.488 kg CO2e

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