

NBC-M12MSX/ 10,0-94F/R4RC - Network cable



1407478

<https://www.phoenixcontact.com/us/products/1407478>

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Network cable, Ethernet CAT6_A (10 Gbps), CC-Link IE CAT6_A (10 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight M12 SPEEDCON, coding: X / IP67, on Plug straight RJ45 Push Pull / IP67, cable length: 10 m

Commercial data

Item number	1407478
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	AF1CMJ
GTIN	4046356777575
Weight per piece (including packing)	545.9 g
Weight per piece (excluding packing)	545.9 g
Customs tariff number	85444210
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	8
No. of cable outlets	1
Number of slots	1
Shielded	yes
Coding	X

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT6 _A , 10 Gbps
	CC-Link IE CAT6 _A , 10 Gbps

Signaling

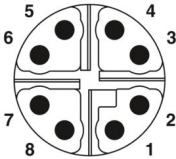
Status display	no
Status display present	no

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	0.5 A
Transmission medium	Copper
Transmission speed	10 Gbps
Transmission characteristics (category)	CAT6 _A

Connector

Connection 1

Dimensional drawing	 Pin assignment of M12 plug, 8-pos., X-coded, pin side view
Type	M12 Plug, straight, 8-position, shielded (Advanced Shielding Technology), Keying: X

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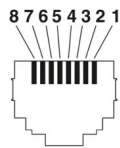


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Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Ethernet CAT6 _A , 10 Gbps CC-Link IE CAT6 _A , 10 Gbps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 Ω
Overvoltage category	II
Degree of pollution	3
Tightening torque	0.4 Nm (M12 connector)
Material Contact	CuZn
Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Degree of protection	IP65 IP67
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-109

Connection 2

Dimensional drawing	 Connector pin assignment plug RJ45
Type	RJ45 Plug, straight
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	PC
Material Housing	Metal
Flammability rating according to UL 94	V0
Degree of protection	IP67

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Ambient temperature (operation)

-40 °C ... 70 °C

Cable/line

Cable length

10 m

Ethernet 10 Gbit [94F]

Dimensional drawing



UL AWM Style

21238 (80 °C / 600 V)

Number of positions

8

Shielded

yes

Cable type

Ethernet 10 Gbit [94F]

Conductor structure

4x2xAWG26/7; S/FTP

AWG signal line

26

Conductor cross section

4x 2x 0.14 mm²

Wire diameter incl. insulation

1 mm ±0.05 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

Twisted pairs

2 cores to the pair

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)

Nominal voltage, cable

≤ 100 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

Smallest bending radius, fixed installation

26 mm

Smallest bending radius, movable installation

51 mm

Halogen-free

according to IEC 60754-1

according to IEC 60332-1-2

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Flame resistance	in accordance with UN ECE-R 118.03
	according to CSA C 22.2 No. 210-FT1
Resistance to oil	in accordance with DIN EN 60811-404
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP67 (RJ45 connector)

Standards and regulations

M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-109

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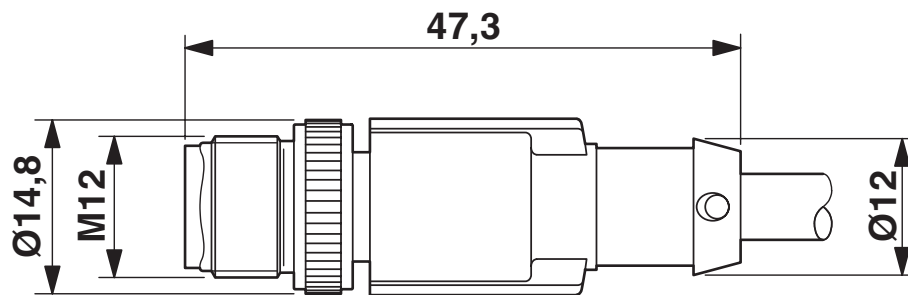


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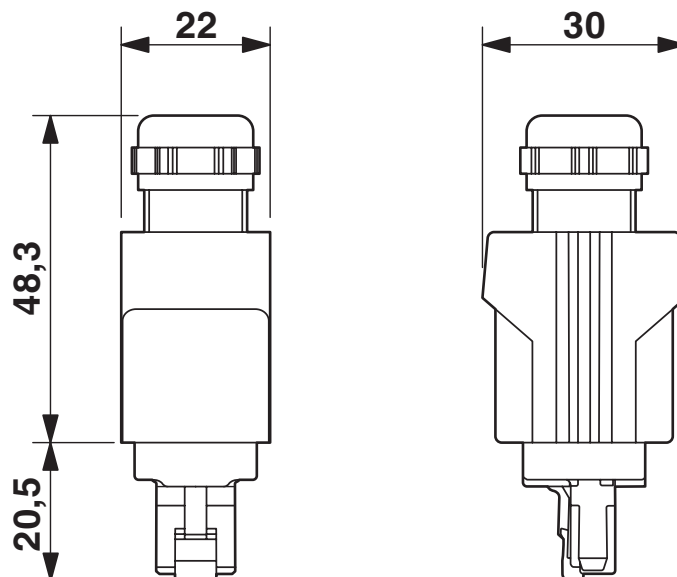
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

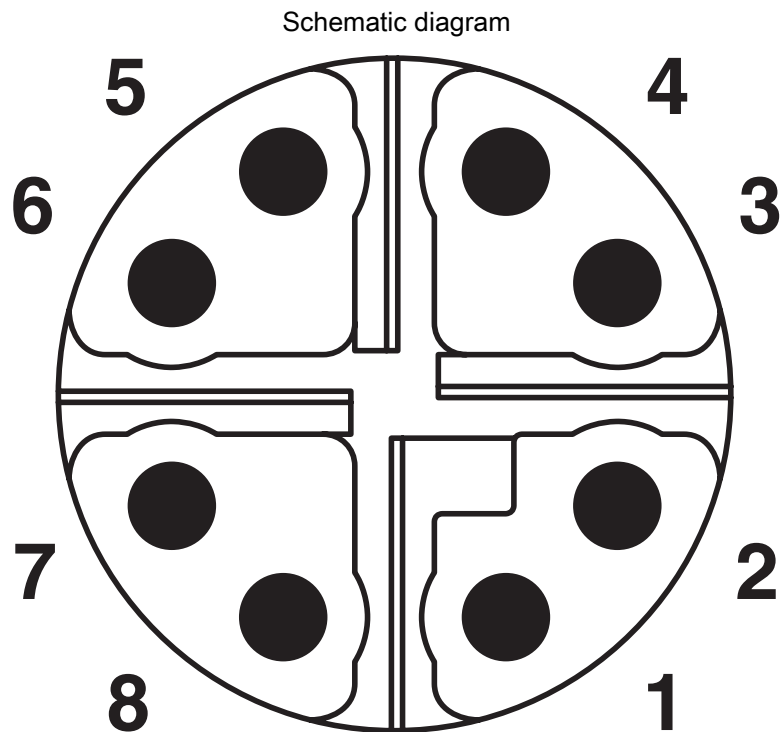
Dimensional drawing



RJ45 Push-Pull connector, IP67

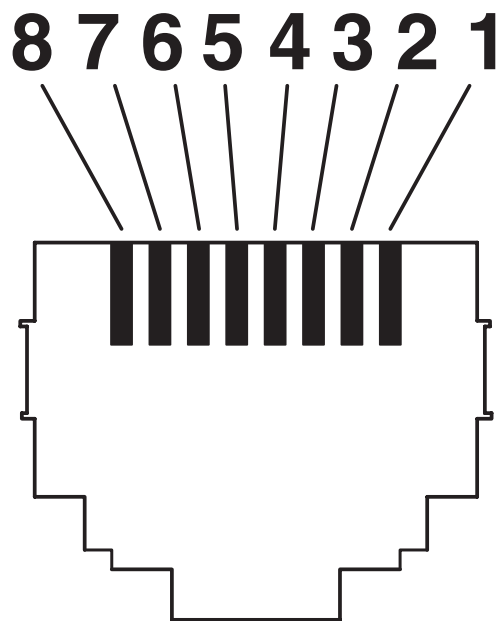
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Pin assignment of M12 plug, 8-pos., X-coded, pin side view

Schematic diagram

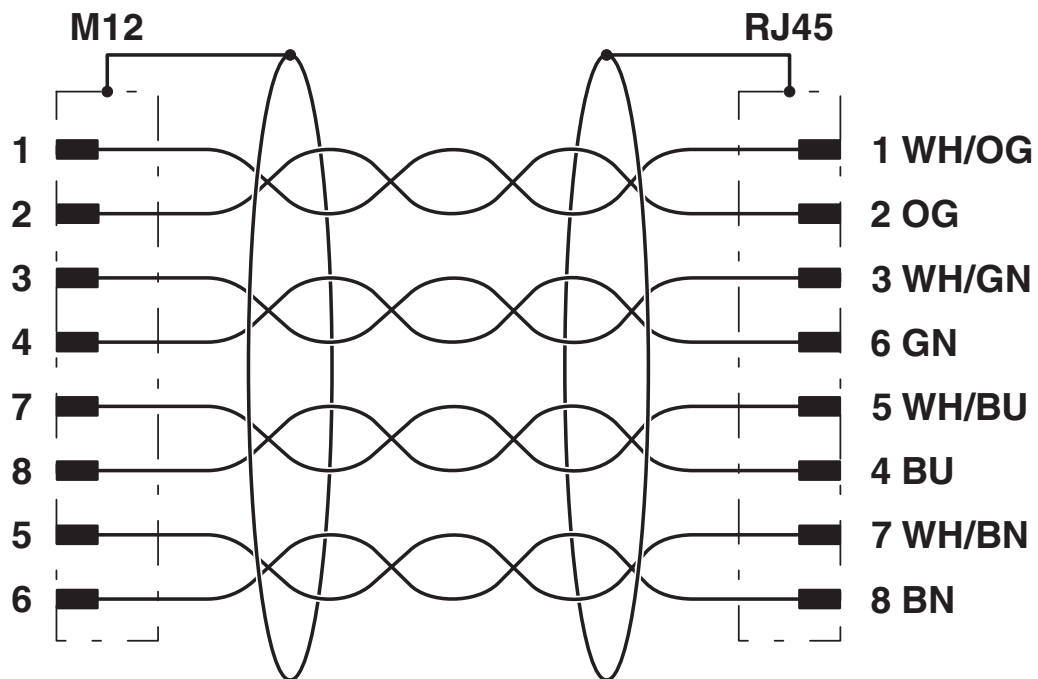


Connector pin assignment plug RJ45

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Circuit diagram



Contact assignment of the M12 and RJ45 plug

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407478>



UL Listed

Approval ID: FILE E 335024

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	0.5 A	-	-



cUL Listed

Approval ID: FILE E 335024

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	30 V	0.5 A	-	-



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.)	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(CAS: 119-47-1)
SCIP	b5f0db3b-87ee-45d5-995f-c2cde71d5d99
EF3.0 Climate Change	
CO2e kg	8.929 kg CO2e