

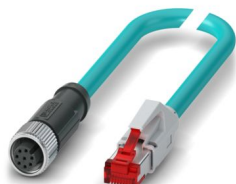
NBC-M12FS/ 1,0-94B/R4AC - Network cable



1407443

<https://www.phoenixcontact.com/us/products/1407443>

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Network cable, Ethernet CAT5 (1 Gbps), 8-position, PUR halogen-free, water blue RAL 5021, shielded (Advanced Shielding Technology), Plug straight RJ45 / IP20, on Socket straight M12, coding: A / IP67, cable length: 1 m

Commercial data

Item number	1407443
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	AF1CMI
GTIN	4046356775649
Weight per piece (including packing)	70.2 g
Weight per piece (excluding packing)	76.5 g
Customs tariff number	85444210
Country of origin	PL

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Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	Ethernet
Number of positions	8
Shielded	yes

Interfaces

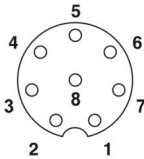
Signal type/category	Ethernet CAT5 (IEC 11801), 1 Gbps
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Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	1 A
Transmission medium	Copper
Transmission speed	1 Gbps

Connector

Connection 1

Dimensional drawing	 <p>Pin assignment M12 socket, 8-pos., A-coded, view female side</p>
Type	M12 Socket, angled, 8-position, shielded (Advanced Shielding Technology), Keying: A
Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	Ethernet CAT5, 1 bps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	$\geq 100 \Omega$
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

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Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-101


Connection 2

Type	RJ45
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Cable/line

Cable length	1 m
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Ethernet flexible CAT5, 4-pair [94B]

Dimensional drawing	
UL AWM Style	21238 (80 °C / 600 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet flexible CAT5, 4-pair [94B]
Conductor structure	4x2xAWG26/7, SF/UTP
AWG signal line	26
Conductor cross-section	4x 2x 0.14 mm ²
Wire diameter incl. insulation	0.96 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.)

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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
Flame resistance	according to IEC 60332-1-2
	according to CSA C 22.2 No. 210-FT1
Resistance to oil	in accordance with EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)

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Drawings

Dimensional drawing



M12 x 1 socket, straight, shielded

Dimensional drawing



RJ45 connector, IP20

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Schematic diagram



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

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Schematic diagram

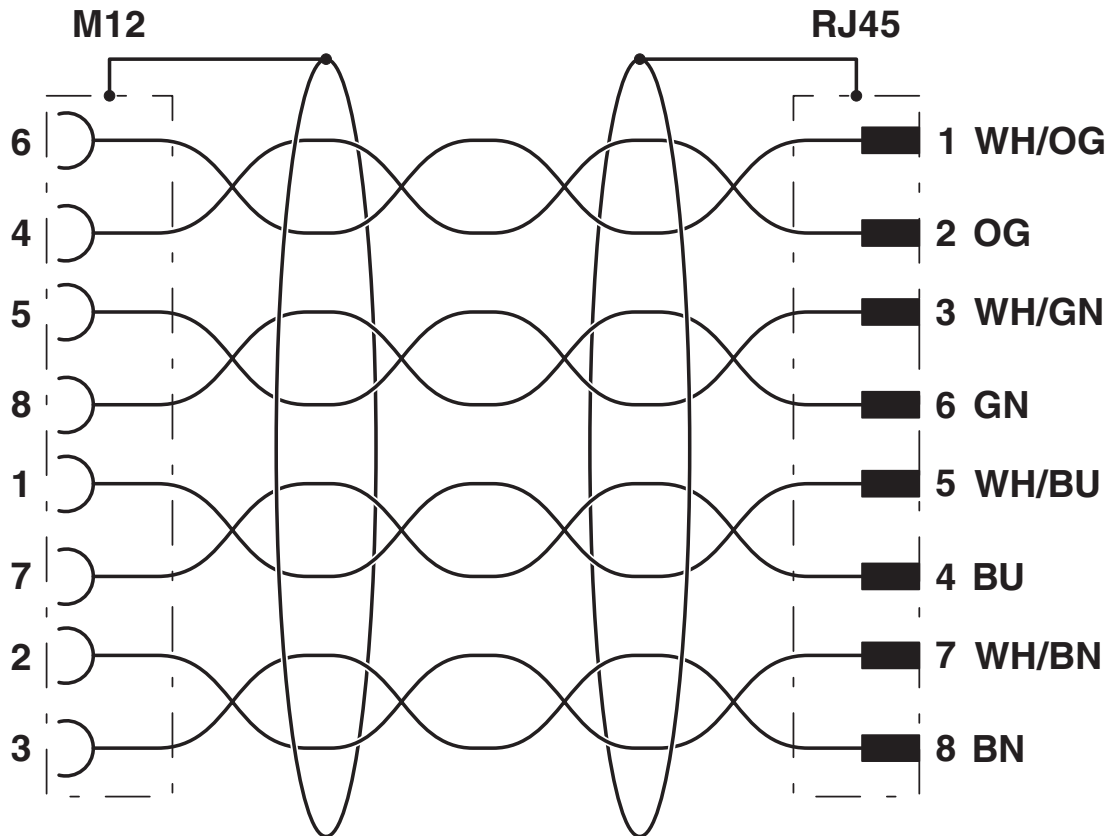


Connector pin assignment plug RJ45

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Circuit diagram



Contact assignment of the M12 socket and the RJ45 plug

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1407443>

 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

UNSPSC

UNSPSC 21.0	26121600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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EF3.1 Climate Change

CO2e kg	1.664 kg CO2e
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