NBC-M12MRD-M12FRD/93F/... - Network cable

1201761

https://www.phoenixcontact.com/us/products/1201761

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Network cable, Ethernet CAT5e (100 Mbps), 4-position, TPE, highly flexible, turquoise, shielded, Plug angled M12, coding: D / IP67, on Socket angled M12, coding: D / IP65, cable length: Free input (0.2 m ... 100.0 m)

Commercial data

Item number	1201761
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF17
Product key	AF1IHC
Weight per piece (including packing)	22.22 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85444290
Country of origin	US

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard, U.S. cables
Number of positions	4
Shielded	yes
Coding	D

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5e, 100 Mbps

Signaling

Status display	no
Status display present	no

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
	RJ45 30 V AC/57 V DC
Nominal current I_N	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Transmission medium	Copper
Transmission speed	100 Mbps

Connector

Connection 1

Type	Plug angled M12 / IP67
Coding type	D (Data)
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)
	FKM (Seal)
Degree of protection	IP67

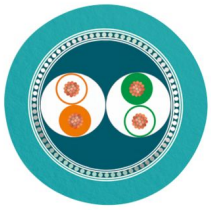
Connection 2

Type	Socket angled M12 / IP65
Coding type	D (Data)
Degree of protection	IP65

Cable/line

Cable length	Free input (0.2 m ... 100.0 m)

Highly flexible Ethernet CAT5 [93F]

Dimensional drawing	
UL AWM Style	2463 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	Highly flexible Ethernet CAT5 [93F]
Conductor structure	2x2xAWG24/7, SF/UTP
Conductor structure signal line	7x 0.20 mm (7x32)
AWG signal line	24
Conductor cross-section	2x 2x 0.2 mm²
Wire diameter incl. insulation	1.2 mm
External cable diameter	6.70 mm ±0.25 mm
Outer sheath, material	TPE
External sheath, color	turquoise
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	2 pairs to the core
Optical shield covering	75 %
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Cable impedance	100 Ω ±15 Ω (at 1 ... 100 MHz)
Nominal voltage, cable	600 V
Test voltage	2000 V
Dynamic load capacity (bending)	Max. bending cycles: 1000000, Bending radius: 10 x D, Traversing path: 0.23 m, Traversing rate: 1.5 m/s, Acceleration: 20.5 m/s²
	Max. bending cycles: 20000000, Bending radius: 20 X D (126 cycles/min. at 20 °C)
Dynamic load capacity (torsion)	Torsion: 360 °/m (1 lb. load), Torsion cycles: 3000000, Torsional frequency: 71 cycles/min, Ambient temperature (operation): 20 °C
Near end crosstalk attenuation (NEXT)	50 dB (with 100 MHz (IEC 62153-4-9))
Return attenuation (RL)	20 dB (at 10 MHz (+6LOG))
	26 dB (at 20 MHz)

	26 dB (at 100 MHz (-5LOG))
Flame resistance	VW-1
Other resistance	Resistant to welding splashes (Abrasion and oil resistance)
	UV resistant (CMX outdoor)
Ambient temperature (operation)	-40 °C ... 80 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP65
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (M12 connector)

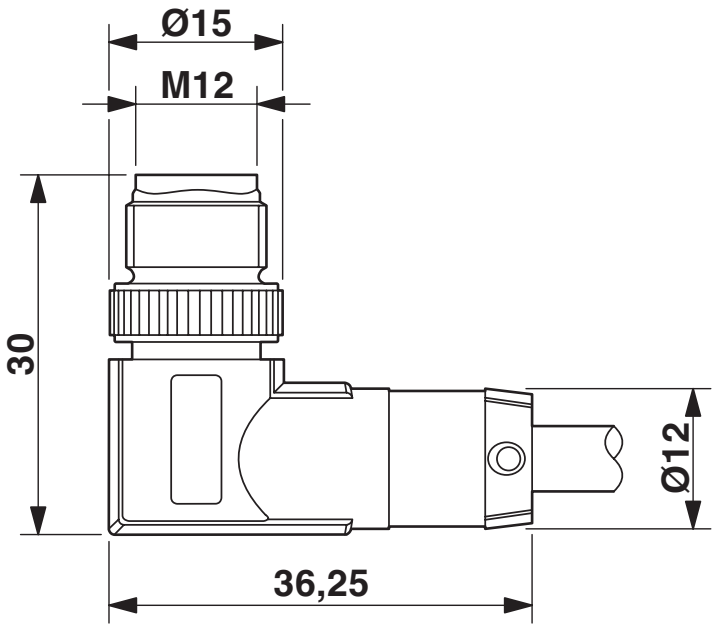
Standards and regulations

M12

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

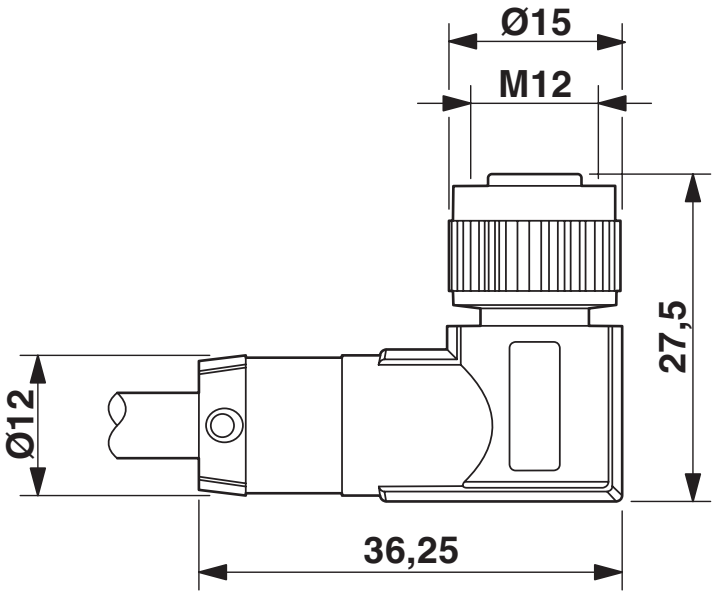
Drawings

Dimensional drawing



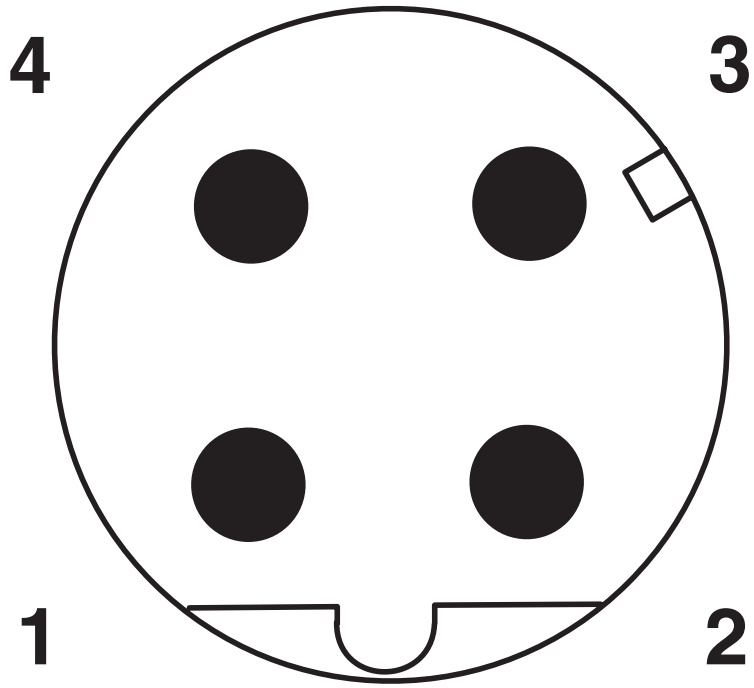
M12 x 1 male plug, angled, shielded

Dimensional drawing



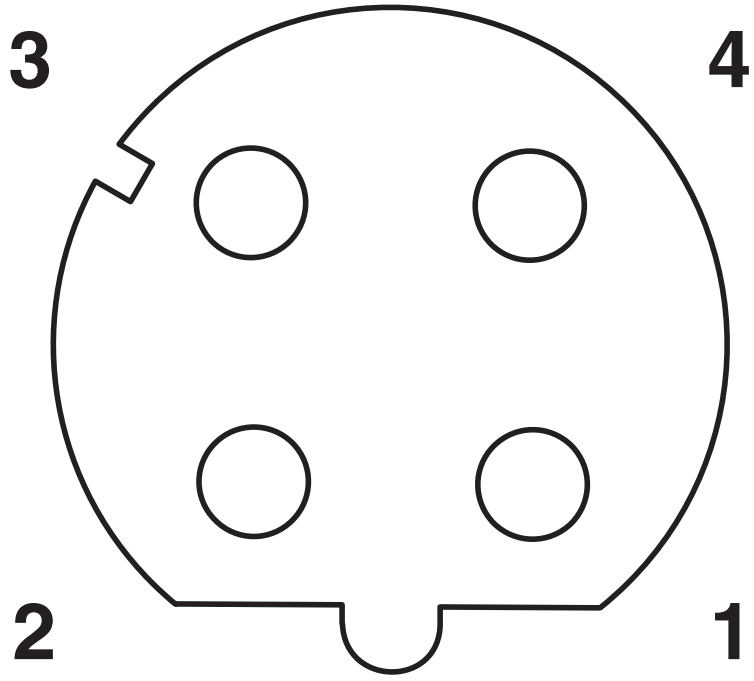
M12 x 1 socket, angled, shielded

Schematic diagram



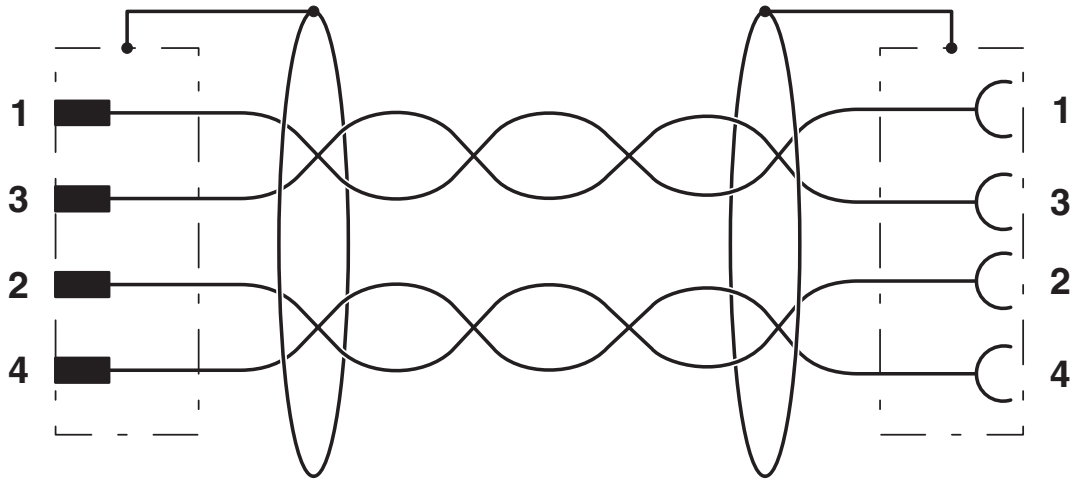
Pin assignment M12 male connector, 4-pos., D-coded, male side

Schematic diagram



Pin assignment M12 socket, 4-pos., D-coded, female side

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1201761

UL Listed
Approval ID: FILE E 335024

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	60 V	1.5 A	-	-

cUL Listed
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	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	60 V	1.5 A	-	-

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 10.0	EC002599

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.)	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof(CAS: 26040-51-7)

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