

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065


Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Network cable, Ethernet CAT5 (100 Mbps), 4-position, PUR halogen-free, water blue RAL 5021, shielded, on free cable end, cable length: 15 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 211732
GTIN	4055626211732
Weight per Piece (excluding packing)	695.000 g
Custom tariff number	85444210
Country of origin	United States

Technical data

Dimensions

Length of cable	15 m
-----------------	------

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C (M12 connector)

General data

Rated current at 40°C	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Rated voltage	48 V AC
	60 V DC
Number of positions	4

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

Technical data

General data

Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps
Standards/regulations	M12 connector IEC 61076-2-101
Contact material	CuSn
Contact carrier material	TPU GF
Contact surface material	Ni/Au

Characteristics head 2

Head type	free cable end
Color	black

Standards and Regulations

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

Cable

Cable type	PUR ETHERNET 2x2 FLEX
Cable type (abbreviation)	93E
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps
Cable structure	2x2xAWG26/7; SF/UTP
Conductor cross section	2x 2x 0.14 mm ²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.98 mm
Wire colors	white/orange-orange, white/green-green
Twisted pairs	2 cores to the pair
Overall twist	Two pairs with two fillers to the core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1.2 mm
External cable diameter D	6.4 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength GRP	≤ 80 N
Cable weight	42 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Bare Cu litz wires

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

Technical data

Cable

Standards/specifications	Electrical requirements EN 50288-2-2	
Insulation resistance	≥ 500 MΩ*km	
Loop resistance	≤ 290.00 Ω/km	
Cable capacity	approx. 45 nF/km (at 1 kHz)	
Wave impedance	100 Ω ±5 Ω (at 100 MHz)	
Near end crosstalk attenuation (NEXT)	65.3 dB (with 1 MHz)	
	56.3 dB (at 4 MHz)	
	50.3 dB (at 10 MHz)	
	47.2 dB (at 16 MHz)	
	45.8 dB (at 20 MHz)	
	42.9 dB (at 31.25 MHz)	
	38.4 dB (at 62.5 MHz)	
	35.3 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)	
	23.6 dB (at 31.25 MHz)	
	21.5 dB (at 62.5 MHz)	
	20.1 dB (at 100 MHz)	

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

Technical data

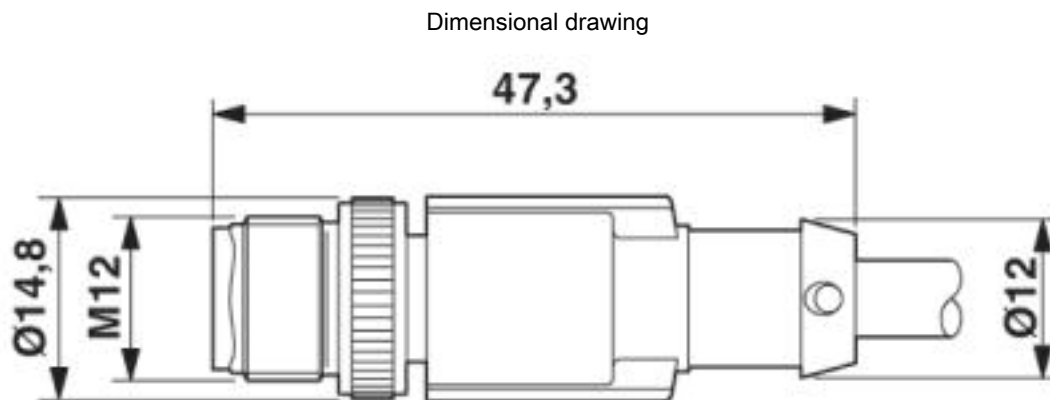
Cable

Signal runtime	5.3 ns/m
Coupling resistance	≤ 100.00 mΩ/m (at 10 MHz)
Nominal voltage, cable	≤ 100 V (Peak value, not for high-power applications)
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Current carrying capacity of cable	2 A (according to DIN VDE 0891-1)
Flame resistance	according to IEC 60332-1-2
	in acc. to UL VW1
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

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

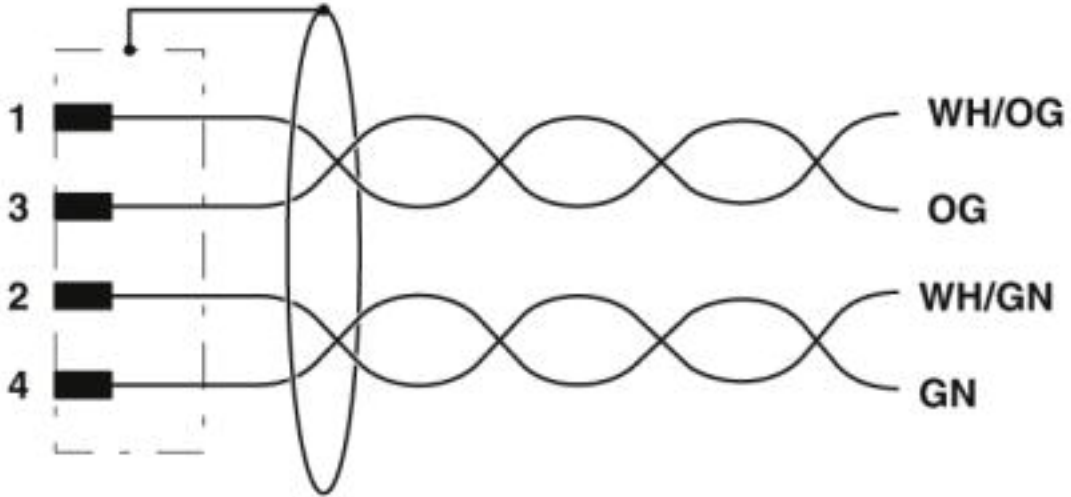
Drawings



Plug, M12 x 1, straight, shielded

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

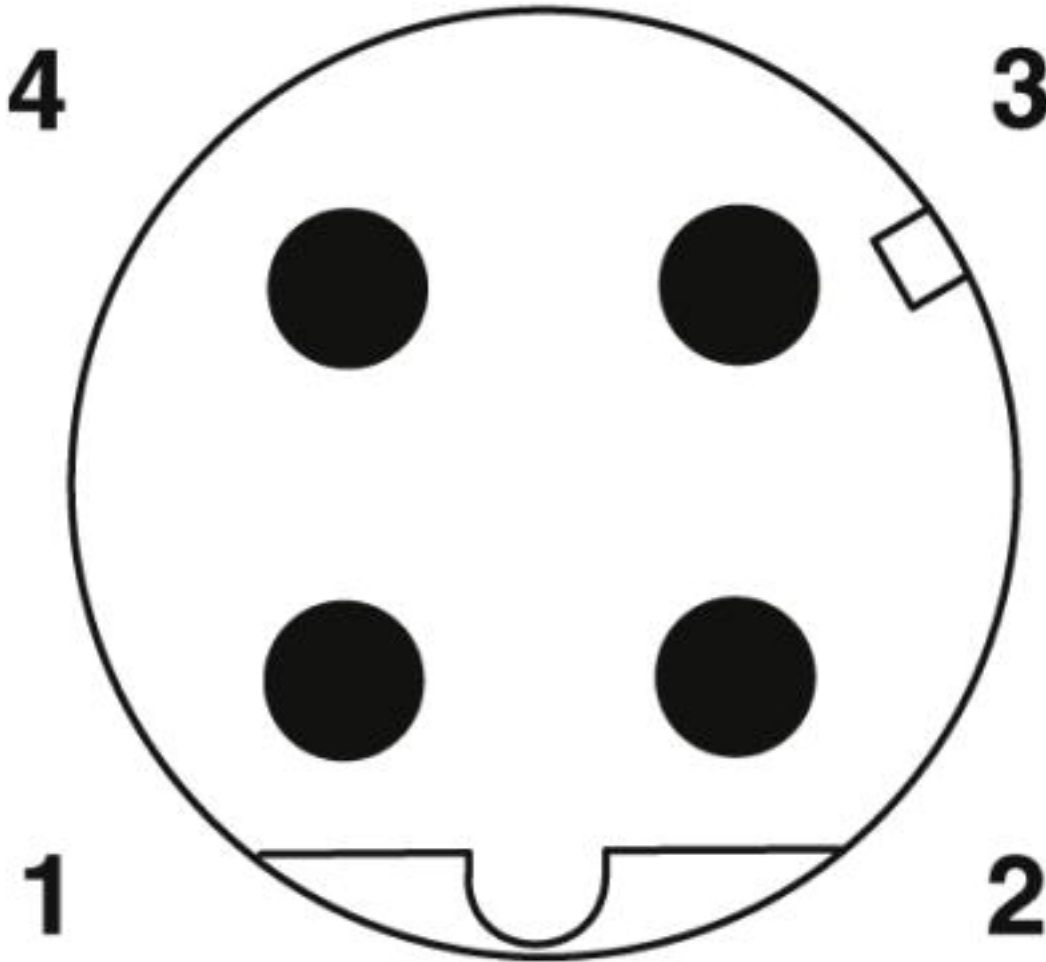
Circuit diagram



Contact assignment of the M12 plug

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

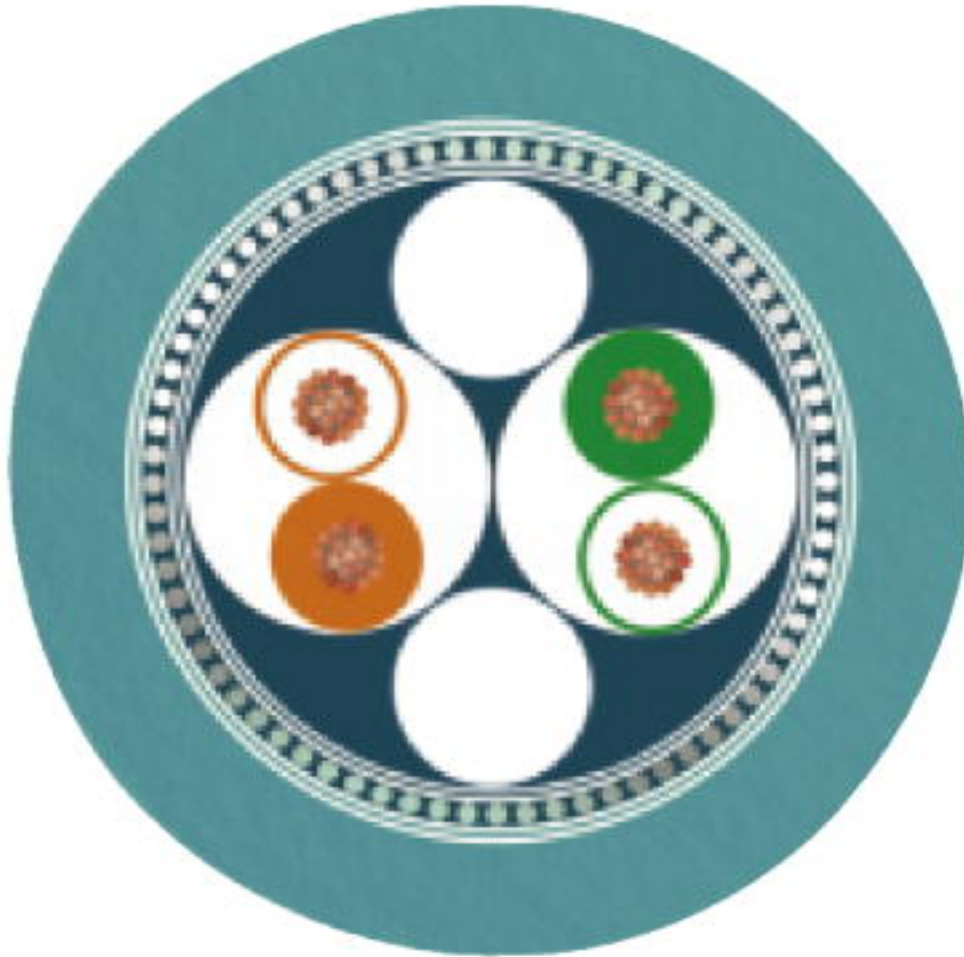
Schematic diagram



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

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

Cable cross section



PUR ETHERNET 2x2 FLEX [93E]

Classifications

eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 8.0	27061801

Network cable - NBC-MSD/ 15,0-93E SCO US - 1418065

Classifications

eCl@ss

eCl@ss 9.0	27060308
------------	----------

ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC002599
ETIM 6.0	EC001855
ETIM 7.0	EC001855

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals


Approvals

Approvals

UL Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 335024
Nominal voltage UN	30 V		
Nominal current IN	4 A		