

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

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, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, PUR/FRNC halogen-free, green RAL 6018, shielded (Advanced Shielding Technology), Plug straight M8 / IP67, coding: D, on Plug angled M8 / IP67, coding: D, cable length: 2 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 804835
GTIN	4055626804835
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	2 m
-----------------	-----

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 90 °C (M12 connector)

General data

Note	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling)
Rated current at 40°C	4 A
Rated voltage	48 V AC

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

Technical data

General data

	60 V DC
Number of positions	4
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
	EtherCAT® CAT5 (IEC 11801), 100 Mbps
Standards/regulations	M8 connector IEC 61076-2-114
Transmission characteristics (category)	CAT5
Transmission speed	100 Mbps

Characteristics head 1

Head type	Plug straight M8 / IP67
No. of positions (pin connector pattern)	4
Coding	D (Data)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PA 6.6 (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Brass, nickel-plated (Screw connection)
Shielded	yes
Insulation resistance	≥ 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm
Ambient temperature (operation)	-25 °C ... 90 °C

Characteristics head 2

Head type	Plug angled M8 / IP67
No. of positions (pin connector pattern)	4
Coding	D (Data)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PA 6.6 (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Brass, nickel-plated (Screw connection)
Shielded	yes
Insulation resistance	≥ 100 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

Technical data

Characteristics head 2

Ambient temperature (operation)	-25 °C ... 90 °C
---------------------------------	------------------

Standards and Regulations

Standards/specifications	M8 connector IEC 61076-2-114
--------------------------	------------------------------

Cable

Product labeling	"sequential length in metres" PN-CABLE-934-C / PUR-4X22AWG/7 Trailing * 22AWG (SHIELDED) (UL) E119100 CMX 75°C VERIFIED (UL) CAT 5E PATCH CABLE FRNC * (Cable printing cable supplier)
Cable type	PROFINET drag chain CAT5
Cable type (abbreviation)	93C
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
	EtherCAT® CAT5 (IEC 11801), 100 Mbps
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	1.5 mm
Wire colors	White, yellow, blue, orange
Overall twist	Star quad
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
External sheath, color	green RAL 6018
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	6.5 mm ±0.2 mm
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	7.5 x D
Number of bending cycles	3000000
Bending radius	100 mm
Traversing path	10 m
Traversing rate	4 m/s
Acceleration	4 m/s ²
Torsion force	± 30 °/m
Tensile strength GRP	≤ 150 N
Cable weight	61 kg/km
Outer sheath, material	PUR
Material, inner sheath	FRNC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

Technical data

Cable

Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±15 Ω (at 1 ... 100 MHz)
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)
	76 dB (at 4 MHz)
	70 dB (at 10 MHz)
	65 dB (at 16 MHz)
	63 dB (at 20 MHz)
	60 dB (at 31.25 MHz)
	55 dB (at 62.5 MHz)
	50 dB (at 100 MHz)
Attenuation	2.1 dB (with 1 MHz)
	4 dB (at 4 MHz)
	6.3 dB (at 10 MHz)
	8 dB (at 16 MHz)
	9 dB (at 20 MHz)
	11.4 dB (at 31.25 MHz)
	16.5 dB (at 62.5 MHz)
	21.3 dB (at 100 MHz)
Signal speed	0.66 c
Signal runtime	5.3 ns/m
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)
Nominal voltage, cable	600 V (UL rating)
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Special properties	Electrical properties according to EN 50288-2-2
Flame resistance	according to IEC 60332-1-2
Halogen-free	yes
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-40 °C ... 70 °C (Cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-50 °C ... 70 °C
Shielded	yes

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
------------	------------------------------------------------

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

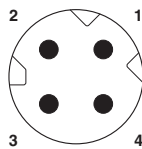
Technical data

Environmental Product Compliance

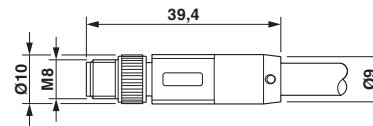
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
--	-----------------------------------------------------------------------------------------------------

Drawings

Schematic diagram



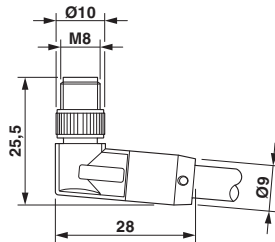
Dimensional drawing



Plug M8 x 1, straight, shielded

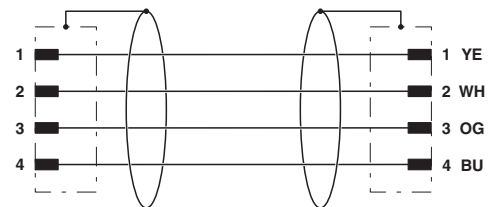
Pin assignment M8 male connector, 4-pos., D-coded, view of pin side

Dimensional drawing



Plug M8 x 1, angled, shielded

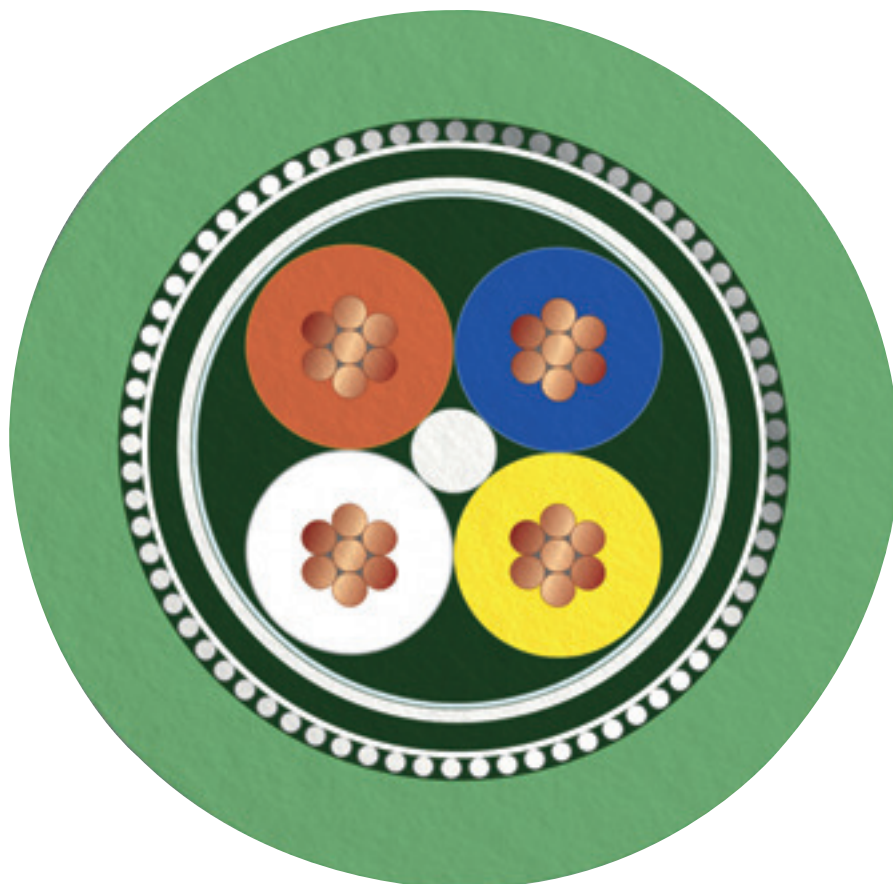
Circuit diagram



Contact assignment of M8 plugs

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

Cable cross section



PROFINET drag chain CAT5 [93C]

Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 11.0	27060307
eCl@ss 9.0	27060308

ETIM

ETIM 6.0	EC001262
ETIM 7.0	EC001855

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

Classifications

UNSPSC

UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

Approvals

Approvals


Approvals


EAC-RoHS / UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

EAC-RoHS			RU D-DE.HB35.B.00385
----------	-------------------------------------------------------------------------------------	--	----------------------

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E335024
Nominal voltage UN		30 V	
Nominal current IN		0.5 A	

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E335024
Nominal voltage UN		30 V	
Nominal current IN		0.5 A	

Network cable - NBC-M8MSD/2,0-93C/M8MRD - 1080539

Approvals

cULus Listed

