

# NBC-M12MSD/ 0,5-93E/M12MSD CO - Network cable



1401599

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Network cable, Ethernet, 4-position, PUR halogen-free, water blue RAL 5021, shielded, Plug straight M12, coding: D, on Plug straight M12, coding: D, cable length: 0.5 m

## Commercial data

Item number	1401599
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF04
Product key	AF1CJI
GTIN	4046356566667
Weight per piece (including packing)	60 g
Weight per piece (excluding packing)	59.2 g
Customs tariff number	85444210
Country of origin	PL

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## Technical data

### Product properties

Product type	Data cable preassembled
Number of positions	4
Shielded	yes

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Bus system	Ethernet
Signal type/category	Ethernet

### Electrical properties

Insulation resistance	$\geq 100 \text{ M}\Omega$
Nominal voltage $U_N$	48 V AC
	60 V DC
Nominal current $I_N$	4 A

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	$\geq 100$
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### Material specifications

Flammability rating according to UL 94	V0
Seal material	NBR
	NBR

### Connector

#### Connection 1

Type	Plug straight M12
Coding type	D (Data)
Material	CuZn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)

#### Connection 2

Type	Plug straight M12
Coding type	D (Data)
	CuZn (Contact)

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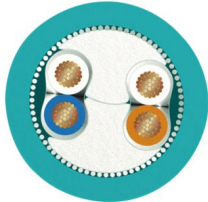
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Material	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)
	Zinc die-cast, nickel-plated (Screw connection)

## Cable/line

Cable length	0.5 m
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## Ethernet [930]

Dimensional drawing	
Cable weight	54 kg/km
Number of positions	4
Shielded	yes
Cable type	Ethernet [930]
Signal runtime	46 ns/m
Signal speed	0.72 c
Conductor structure signal line	7x 0.20 mm
AWG signal line	24
Conductor cross-section	0.25 mm <sup>2</sup>
Wire diameter incl. insulation	1.4 mm
External cable diameter	8 mm
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Conductor material	Bare Cu litz wires
Material wire insulation	Cell PE
Single wire, color	white-green, white-orange
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined polyester foil
Overall twist	2 cores with 2 fillers to the core
Optical shield covering	65 %
Max. conductor resistance	84 mΩ/m
Insulation resistance	5 GΩ*km
Wave impedance	100 Ω ±5 %
Working capacitance	42.5 pF
Nominal voltage, cable	125 V
Test voltage	1000 V
Smallest bending radius, fixed installation	min. 40 mm

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Smallest bending radius, movable installation	min. 40 mm
Shield attenuation	60.00 dB (up to 1000 MHz)
Ambient temperature (operation)	-20 °C ... 70 °C (cable, fixed installation)
	0 °C ... 50 °C (Cable, flexible installation)

### Environmental and real-life conditions

#### Ambient conditions

Degree of protection	IP65
	IP67
	IP65/IP67/IP69K
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-20 °C ... 70 °C (cable, fixed installation)
	0 °C ... 50 °C (Cable, flexible installation)

## Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



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

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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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