

NBC-M12MSD/53,0-93R/R4AQ - Network cable



1435213

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Network cable, Ethernet CAT5 (100 Mbps), Ethernet CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded, Plug straight M12, coding: D / IP65, on Plug straight RJ45 / IP20, cable length: 53 m

Commercial data

Item number	1435213
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Product key	AF1CJI
GTIN	4063151810009
Weight per piece (including packing)	3,232.068 g
Weight per piece (excluding packing)	3,232.068 g
Country of origin	PL

Technical data

Product properties

Product type	Data cable preassembled
Sensor type	Ethernet
Number of positions	4
Shielded	yes

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 100 Mbps
	Ethernet CAT5 (TIA 568B:2001), 100 Mbps

Signaling

Status display	no
Status display present	no

Electrical properties

Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	1 A
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Connector

Connection 1

Type	Plug straight M12 / IP65
Number of positions	4
Coding type	D (Data)
Shielded	yes
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)
Degree of protection	IP65

Connection 2

Type	Plug straight RJ45 / IP20
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	PA (Housing)

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Degree of protection	IP20
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Cable/line

Cable length	53 m
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PROFINET robot CAT5 [93R]

Dimensional drawing	
Cable weight	55 kg/km
UL AWM Style	20233 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET robot CAT5 [93R]
Conductor structure	1x4xAWG22/19, S/TQ
Signal runtime	4.8 ns/m
Conductor structure signal line	19x 0.15 mm
AWG signal line	22
Conductor cross section	4x 0.34 mm²
Wire diameter incl. insulation	1.5 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE
Single wire, color	white, yellow, blue, orange
Thickness, outer sheath	approx. 1.00 mm
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	300 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	5 x D
Smallest bending radius, fixed installation	33 mm
Dynamic load capacity (torsion)	Torsion: ±180 °/m, Torsion cycles: 1000000 2.9 dB (with 1 MHz)

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Shield attenuation	5 dB (at 4 MHz)
	8.1 dB (at 10 MHz)
	10.4 dB (at 16 MHz)
	11.9 dB (at 20 MHz)
	15.5 dB (at 31.25 MHz)
	26.5 dB (at 62.5 MHz)
	41 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1
Flame resistance	according to IEC 60332-1-2
Resistance to oil	in accordance with DIN EN 60811-2-1
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C
	-40 °C ... 80 °C
Ambient temperature (installation)	-20 °C ... 60 °C

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation) (male connector/female connector)	-25 °C ... 85 °C (M12 connector)
	-25 °C ... 60 °C (RJ45 connector)

Standards and regulations

M12

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

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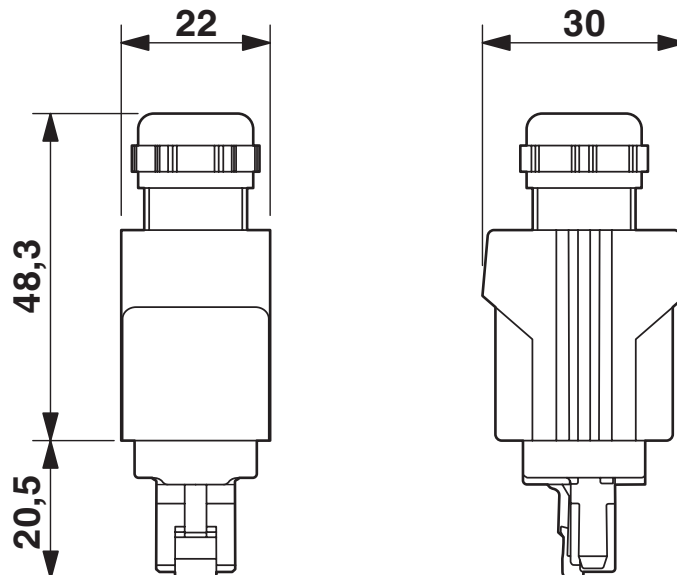
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



RJ45 Push-Pull connector, IP67

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Schematic diagram



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

Schematic diagram

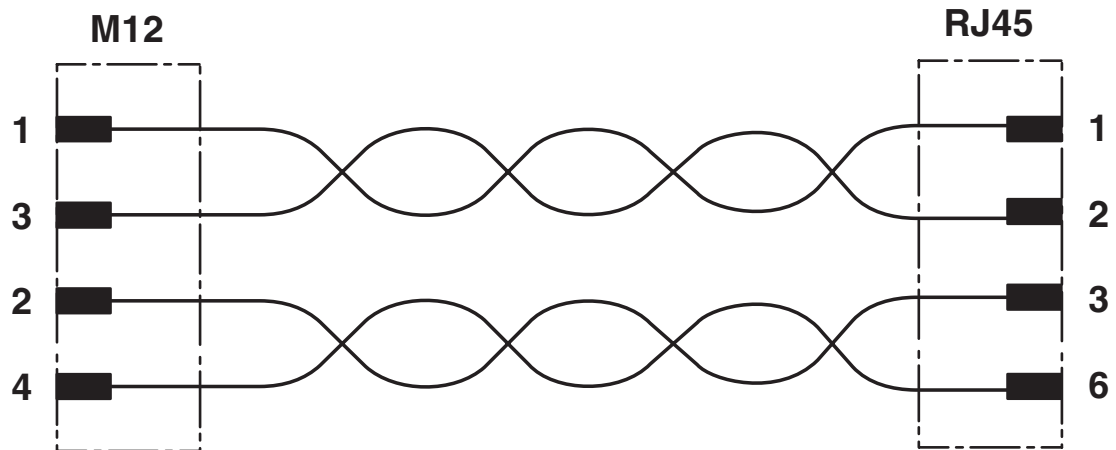


Connector pin assignment plug RJ45

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Circuit diagram



Contact assignment of the M12 and RJ45 plug

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Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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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.)	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	f2780157-13bf-44e7-9c13-5d55a1013d9e