

NBC-M12MSD/50,0-93B/M12MSD - Network cable



1015059

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Network cable, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded (Advanced Shielding Technology), Plug straight M12, coding: D / IP67, on Plug straight M12, coding: D / IP67, cable length: 50 m

Commercial data

Item number	1015059
Packing unit	1 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Product key	AF1CJN
GTIN	4055626496160
Weight per piece (including packing)	3,174 g
Weight per piece (excluding packing)	3,174 g
Country of origin	PL

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Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	D

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	PROFINET
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps EtherCAT® CAT5 (IEC 11801), 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	4 A
Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)

Material specifications

Flammability rating according to UL 94	V0
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Connector

Connection 1

Type	Plug straight M12 / IP67
Number of positions	4
Coding type	D (Data)
Handle color	black
Material	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carrier)
	TPU, hardly inflammable, self-extinguishing (Grip body)

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	Zinc die-cast, nickel-plated (Screw connection)
	FKM (Seal)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Tightening torque	0.4 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C


Connection 2

Type	Plug straight M12 / IP67
Number of positions	4
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)
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Tightening torque	0.4 Nm
Degree of protection	IP67
Ambient temperature (operation)	-25 °C ... 90 °C

Cable/line

Cable length	50 m
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PROFINET PVC stranded CAT5 [93B]

Dimensional drawing	
UL AWM Style	21695 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
AWG signal line	22
Conductor cross-section	4x 0.34 mm ²
Wire diameter incl. insulation	1.5 mm ±0.1 mm

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External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange
Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	≤ 600 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	4 x D
Minimum bending radius, flexible installation	8 x D
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1) UL 1685 (CSA FT 4) UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
Resistance to oil	OIL RES I according to UL 2256
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -10 °C ... 70 °C (Cable, flexible installation)

Standards and regulations

M12

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

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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Circuit diagram



Contact assignment of the M12 plugs

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Approvals

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 UL Listed Approval ID: FILE E 335024				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	250 V	4 A	-	-

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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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