

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

<https://www.phoenixcontact.com/us/products/1403996>

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 documentation. Our general terms of use for downloads are valid.



Network cable, PROFINET CAT5 (100 Mbps), EtherCAT® CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, shielded (Advanced Shielding Technology), cable length: 22.1 m, Customer version

Commercial data

Item number	1403996
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF04
Product key	AF1CJI
GTIN	4046356676120
Weight per piece (including packing)	1,439 g
Weight per piece (excluding packing)	1,439 g
Customs tariff number	85444210
Country of origin	PL

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

<https://www.phoenixcontact.com/us/products/1403996>

Technical data

Notes

General	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 10.1 Cord Sets for Balanced Cabling
General	Further products with variable cable type and variable cable length can be found in the accessories section

Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	PROFINET
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
--	----

Cable/line

Cable length	22.1 m
--------------	--------


NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

<https://www.phoenixcontact.com/us/products/1403996>

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
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

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

<https://www.phoenixcontact.com/us/products/1403996>

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

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable

1403996

<https://www.phoenixcontact.com/us/products/1403996>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



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

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

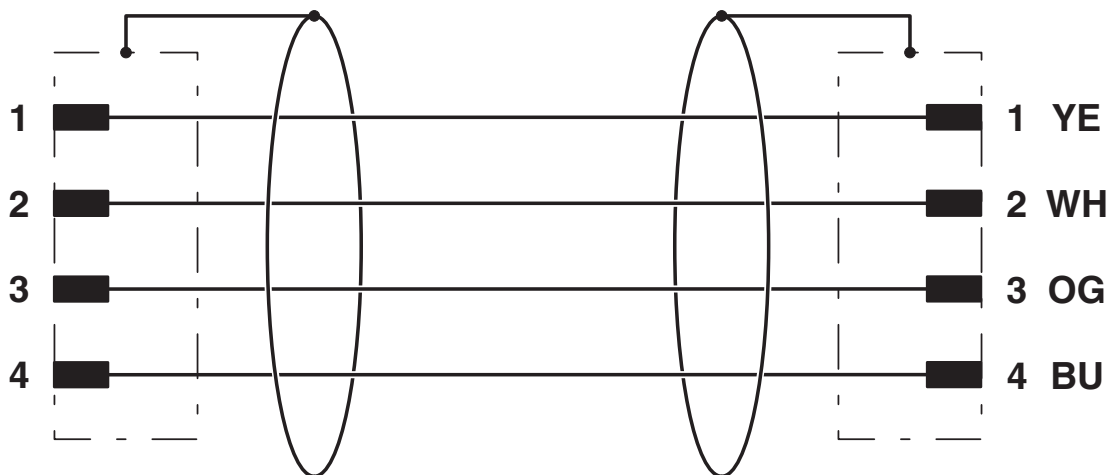
<https://www.phoenixcontact.com/us/products/1403996>

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plugs

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

<https://www.phoenixcontact.com/us/products/1403996>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 10.0	EC001855
-----------	----------

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

NBC-M12MSD/22,1-93B/M12MSD AB1 - Network cable



1403996

<https://www.phoenixcontact.com/us/products/1403996>

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.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com