

Bus system cable - NBC-MS/40,0-94B/FS - 1424746

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Bus system cable, 8-position, PUR, water blue RAL 5021, Plug straight M12, coding: A, on Socket straight M12, coding: A, cable length: 40 m

RoHS

Ethernet

Key Commercial Data

Packing unit	1 pc
Minimum order quantity	15 pc
GTIN	 4 055626 378510
GTIN	4055626378510

Technical data

Dimensions

Length of cable	40 m
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Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 70 °C (cable, fixed installation)
	-10 °C ... 50 °C (cable, flexible installation)

General data

Rated current at 40°C	2 A
Rated voltage	30 V AC
	30 V DC
Number of positions	8
Overvoltage category	II
Degree of pollution	3
Contact material	CuZn
Contact carrier material	TPU GF
Contact surface material	Ni/Au
Degree of protection	IP65/IP67/IP69K

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Technical data

Characteristics head 1

Head type	Plug straight M12
Coding	A (Standard)
Shielded	yes
Outer sheath, material	PUR
External sheath, color	water blue RAL 5021
Type type, plug side	Plug straight
Type type, socket side	Socket, straight

Characteristics head 2

Head type	Socket straight M12
Coding	A (Standard)

Standards and Regulations

Flammability rating according to UL 94	HB
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Cable

Cable type	Ethernet flexible CAT5, 4-pair
Cable type (abbreviation)	94B
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801), 1 Gbps
Cable structure	4x2xAWG26/7; SF/UTP
Conductor cross section	4x 2x 0.14 mm²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.96 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair
Overall twist	4 pairs for core
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1.05 mm
External cable diameter D	6.4 mm ±0.2 mm
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Tensile strength GRP	≤ 100 N
Cable weight	47 kg/km
Outer sheath, material	PUR
Material conductor insulation	Foamed PE
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 290.00 Ω/km

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Technical data

Cable

Cable capacity	48 nF/km (at 1 kHz)
Wave impedance	100 Ω $\pm$ 5 Ω (at 100 MHz)
Near end crosstalk attenuation (NEXT)	71.3 dB (with 1 MHz)
	62.3 dB (at 4 MHz)
	56.3 dB (at 10 MHz)
	53.2 dB (at 16 MHz)
	51.8 dB (at 20 MHz)
	48.9 dB (at 31.25 MHz)
	44.4 dB (at 62.5 MHz)
	41.3 dB (at 100 MHz)
Power-summated near end crosstalk attenuation (PSNEXT)	62.3 dB (with 1 MHz)
	53.3 dB (at 4 MHz)
	47.3 dB (at 10 MHz)
	44.2 dB (at 16 MHz)
	42.8 dB (at 20 MHz)
	39.9 dB (at 31.25 MHz)
	35.4 dB (at 62.5 MHz)
	32.3 dB (at 100 MHz)
Attenuation	3.2 dB (with 1 MHz)
	6 dB (at 4 MHz)
	9.5 dB (at 10 MHz)
	12.1 dB (at 16 MHz)
	13.6 dB (at 20 MHz)
	17.1 dB (at 31.25 MHz)
	24.8 dB (at 62.5 MHz)
	32 dB (at 100 MHz)
Return loss (RL)	23 dB (at 4 MHz)
	24.1 dB (at 8 MHz)
	25 dB (at 10 MHz)
	25 dB (at 16 MHz)
	25 dB (at 20 MHz)
	23.6 dB (at 31.25 MHz)
	21.5 dB (at 62.5 MHz)
	20.1 dB (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	$\leq$ 100.00 m Ω /m (at 10 MHz)
Nominal voltage, cable	$\leq$ 100 V
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	according to IEC 60332-1-2

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Technical data

Cable

Halogen-free	according to IEC 60754-1
Resistance to oil	according to EN 60811-2-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C ... 80 °C
Ambient temperature (storage/transport)	-20 °C ... 80 °C

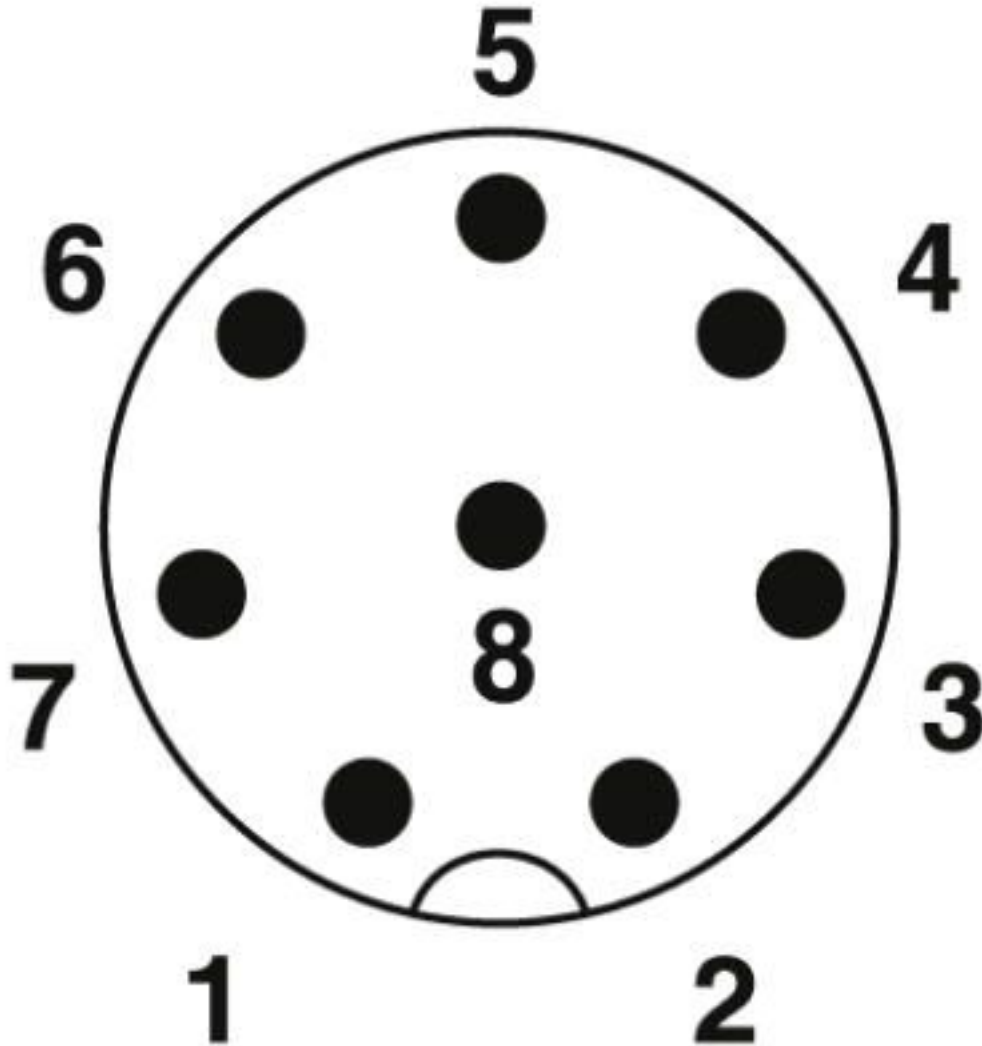
Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Bus system cable - NBC-MS/40,0-94B/FS - 1424746

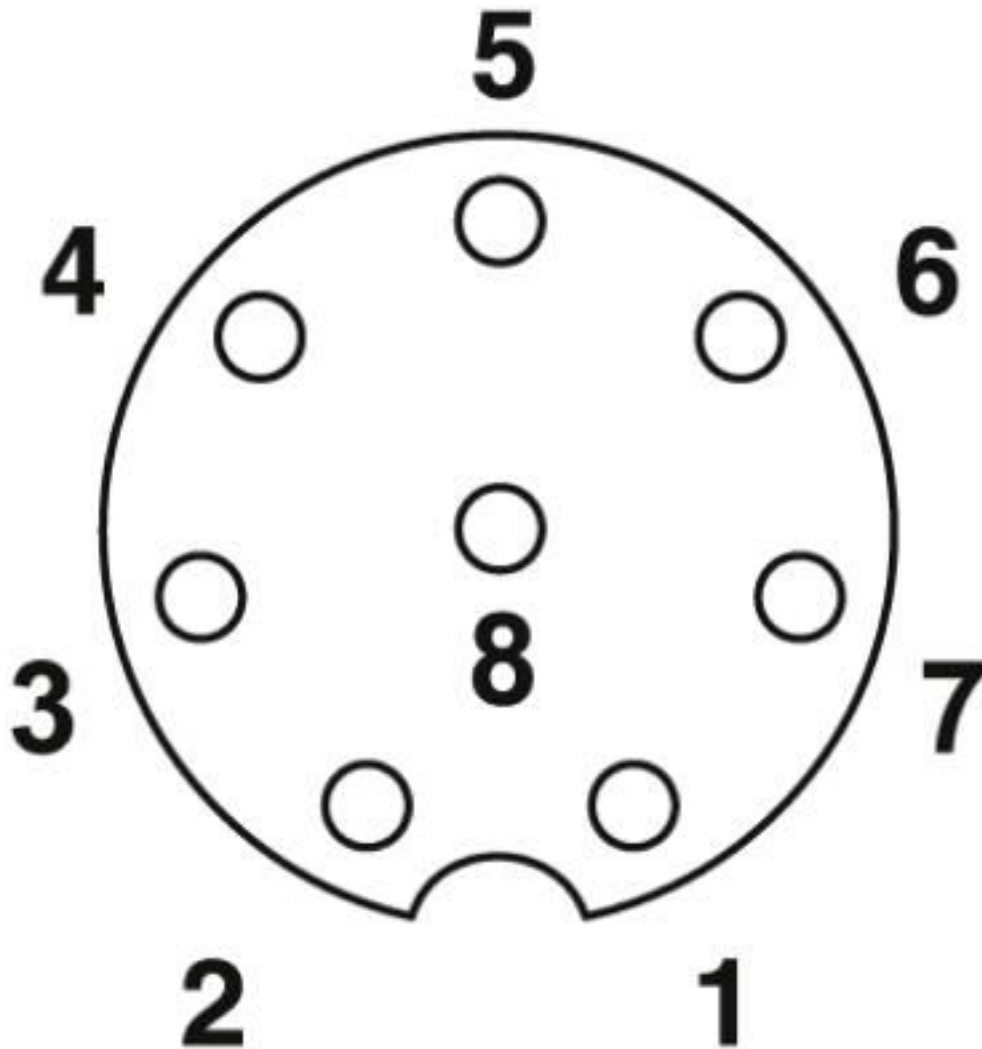
Schematic diagram



Pin assignment M12 plug, 8-pos., view plug side

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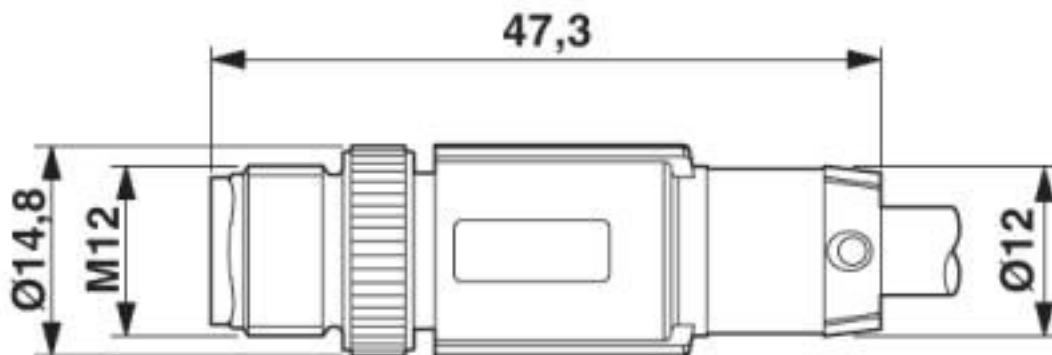
Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

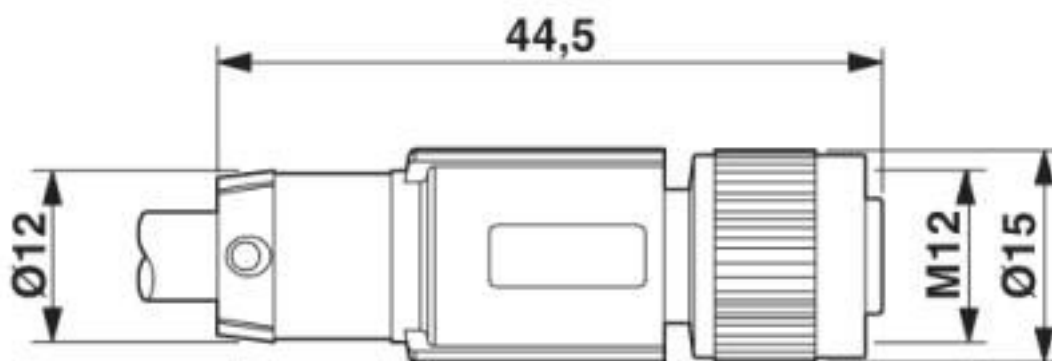
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

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Cable cross section



Ethernet flexible CAT5, 4-pair [94B]

Classifications

eCl@ss

eCl@ss 7.0	27060308
eCl@ss 9.0	27060308

ETIM

ETIM 6.0	EC001262
ETIM 7.0	EC001262

Approvals

Approvals

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Approvals

Approvals

UL Listed

Ex Approvals

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 335024
Nominal voltage UN		30 V	
Nominal current IN		1.5 A	

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