

NBC-M12MSY-M12MSY/.../... - Hybrid cable



1327466/94H/0.7

<https://www.phoenixcontact.com/us/products/1327466?orderkey=MTMyNzQ2Ni85NEgyMC43>

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Hybrid cable, Ethernet hybrid CAT5 (100 Mbps), 8-position, shielded (Advanced Shielding Technology), Plug straight M12, coding: Y / IP65/IP67, on Plug straight M12, coding: Y / IP65/IP67, cable length: Free input (0.2 ... 40.0 m), Power with Ethernet (PWE)

Commercial data

Item number	1327466/94H/0.7
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	AF1CML
Customs tariff number	85444290
Country of origin	PL

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Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	Ethernet hybrid
Number of positions	8
No. of cable outlets	1
Shielded	yes
Coding	Y

Interfaces

Bus system	Ethernet
Signal type/category	Ethernet hybrid CAT5 (IEC 11801), 100 Mbps

Signaling

Status display	no
Status display present	no

Electrical properties

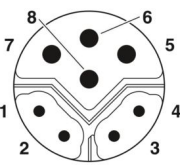
Nominal voltage U_N	48 V AC (Power and data)
	50 V DC (Power and data)
Nominal current I_N	6 A (Power)
	0.5 A (Data)
Transmission medium	Copper
Transmission speed	100 Mbps

Material specifications

Flammability rating according to UL 94	V0
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Connector

Connection 1

Dimensional drawing	 M12 hybrid plug pin assignment, 8-pos., Y-coded, pin side view
Type	M12 Plug, straight, 8-position, shielded (Advanced Shielding Technology), Keying: Y
Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology

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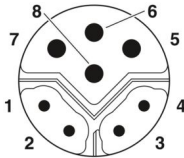


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Signal type/category	EtherCAT® CAT5 (IEC 11801), 100 Mbps
	PROFINET CAT5 (IEC 11801), 100 Mbps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Overvoltage category	III
Degree of pollution	3
Tightening torque	0.4 Nm
Material Contact	CuZn
Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
Material Grip body	TPU, hardly inflammable, self-extinguishing
Material Seal	FKM
Flammability rating according to UL 94	V0
Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C ... 85 °C
Standard designation	M12 connector
Standards/regulations	IEC 61076-2-113

Connection 2

Dimensional drawing	 M12 hybrid plug pin assignment, 8-pos., Y-coded, pin side view
Type	M12 Plug, straight, 8-position, shielded (Advanced Shielding Technology), Keying: Y
Number of positions	8
Shielded	yes
Shielding	Advanced Shielding Technology
Signal type/category	EtherCAT® CAT5 (IEC 11801), 100 Mbps
	PROFINET CAT5 (IEC 11801), 100 Mbps
Insertion/withdrawal cycles	≥ 100
Insulation resistance	≥ 100 MΩ
Overvoltage category	III
Degree of pollution	3
Tightening torque	0.4 Nm
Material Contact	CuZn
Material Contact surface	Ni/Au
Material Contact carrier	PA 6.6
Material Screw connection	Die-cast zinc, nickel-plated
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Material Seal	FKM
Flammability rating according to UL 94	V0
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Cable/line

Cable length	Free input (0.2 ... 40.0 m)
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Ethernet hybrid [94H]

Cable weight	110 kg/km
UL AWM Style	20233 (80°C/300 V)
Number of positions	8
Shielded	yes
Cable type	Ethernet hybrid [94H]
	Ethernet hybrid 94H
Conductor structure	1x4x AWG 26+1x4x AWG 18
Conductor structure signal line	19x 0.10 mm
AWG signal line	26
Conductor structure, voltage supply	19x 0.20 mm
AWG power supply	18
Conductor cross section	4x 0.15 mm ² (Data)
	4x 0.85 mm ² (Power)
Wire diameter incl. insulation	1.05 mm (Data)
	1.4 mm (Power)
External cable diameter	8.80 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	black RAL 9005
Conductor material	Bare Cu litz wires
Material wire insulation	PP (Data)
	PP (Power)
Single wire, color	white/orange, orange, white/green, green, white, blue, brown, black
Overall twist	1 star quad and 4 wires with 2 fillers
Shielding	Tinned copper braided shield
Optical shield covering	85 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 280.00 Ω/km (Data)
	≤ 45.00 Ω/km (Power)
Wave impedance	100 Ω ±15 Ω (4 MHz ... 100 MHz)
Working capacitance	nom. 50 nF (per kilometer)
Differential impedance	100 Ω ±5 % (at 100 MHz)
Nominal voltage, cable	≤ 125 V (Peak value, not for high-power applications)

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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
Smallest bending radius, fixed installation	36 mm
Smallest bending radius, movable installation	71 mm
Dynamic load capacity (bending)	Max. bending cycles: 2000000, Bending radius: 15 x D, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s², Ambient temperature: -20 °C ... 60 °C
Tensile strength	85 N (in accordance with DIN EN 50565-1 for flexible installation) 295 N (in accordance with DIN EN 50565-1 for fixed installation)
Near end crosstalk attenuation (NEXT)	56.3 dB (at 4 MHz) 50.3 dB (at 10 MHz) 47.2 dB (at 16 MHz) 45.8 dB (at 20 MHz) 42.9 dB (at 31.25 MHz) 38.4 dB (at 62.5 MHz) 35.3 dB (at 100 MHz)
Wave attenuation	6.2 dB (at 4 MHz) 9.8 dB (at 10 MHz) 12.4 dB (at 16 MHz) 13.9 dB (at 20 MHz) 17.6 dB (at 31.25 MHz) 25.4 dB (at 62.5 MHz) 32.8 dB (at 100 MHz)
Halogen-free	according to IEC 60754-1 in accordance with DIN VDE 0472 part 815
Flame resistance	in accordance with UL 1581, Section 1060 in acc. with UL 1581, section 1061 in accordance with UL 2556, Section 9.3
Resistance to oil	in accordance with IEC 60811-404 According to DIN EN 50363-10-2
Other resistance	Low adhesion Hydrolysis resistance (DIN EN 50396)
Special properties	Free of substances which would hinder coating with paint or varnish Silicone-free
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation) -30 °C ... 70 °C (Cable, flexible installation)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-113

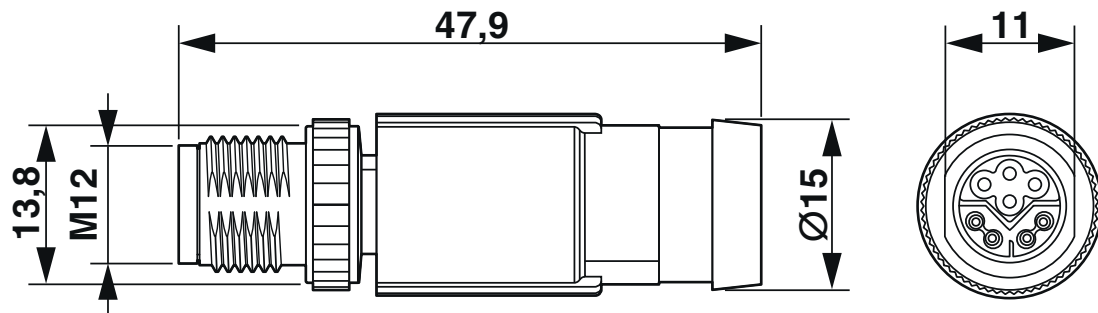
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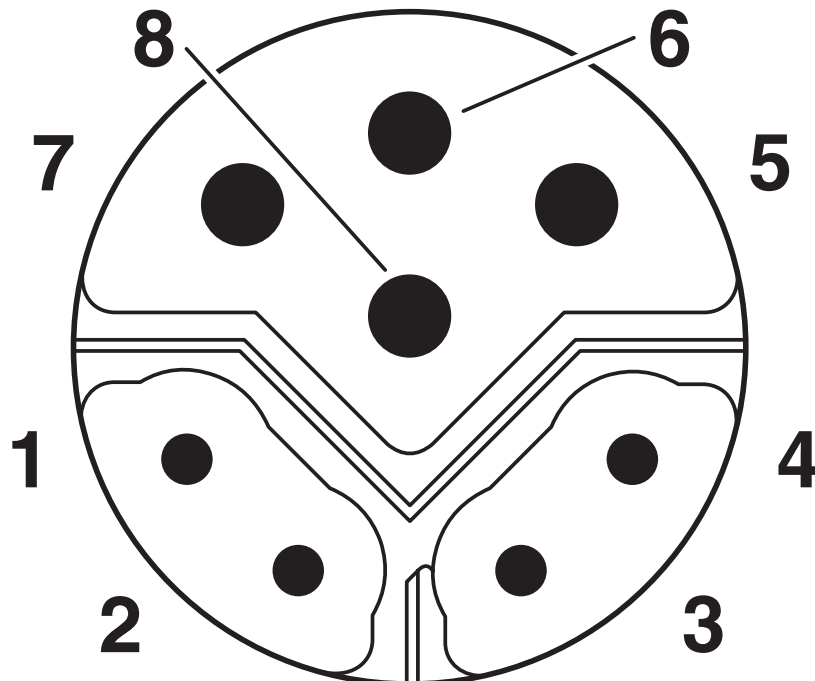
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram



M12 hybrid plug pin assignment, 8-pos., Y-coded, pin side view

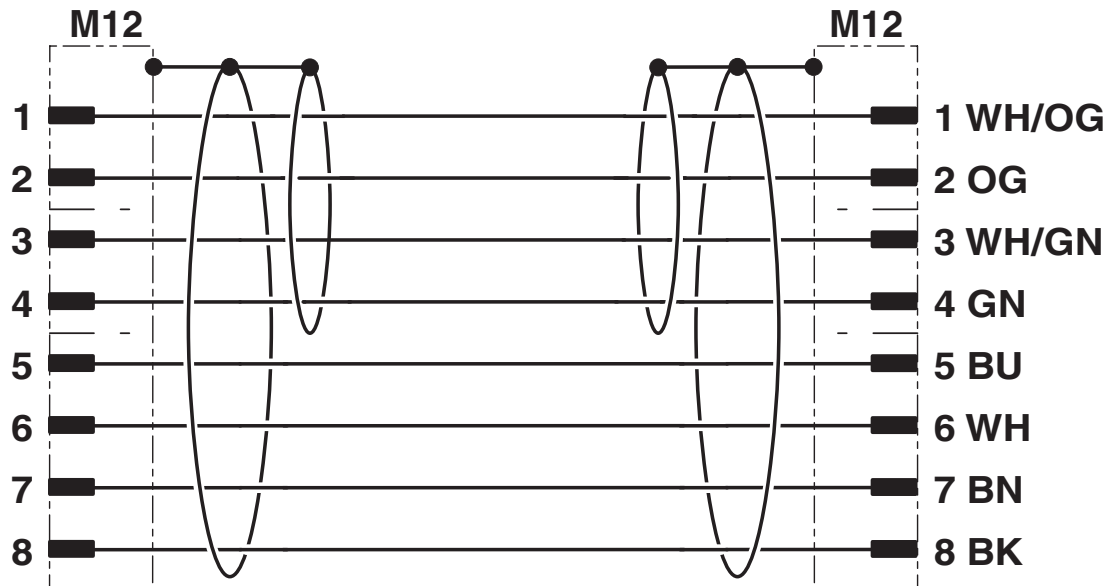
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Circuit diagram



Contact assignment of the M12 plugs

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Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1327466?orderkey=MTMyNzQ2Ni85NEgvMC43>



cULus Listed

Approval ID: NBC-M12MSY Series

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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
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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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