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Assembled PROFINET cable, CAT5e, shielded, star quad, AWG 22 (7-wire), black, M12 flush-type socket, rear/screw mounting with M16 thread on free conductor end, length 2 m



Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 631372
GTIN	4046356631372

Technical data

Mechanical characteristics

Overvoltage category	Ш
No. of cable outlets	1
Weight	151.8 g

Ambient conditions

Degree of protection	IP67 (When plugged in)
	IP65 (When plugged in)

Standards and Regulations

Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	• WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.



Technical data

Standards and Regulations

• The products are suitable for applications in plant, controller, and electrical device engineering.
• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
Assembled products may not be manipulated or improperly opened.
• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
• When using the product in direct connection with third-party manufacturers, the user is responsible.
 For operating voltages > 50 V AC, conductive connector housings must be grounded
• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
Observe the corresponding technical data. You will find information: o On the product o On the packing label o In the supplied documentation o Online at phoenixcontact.com/products under the product
Only use tools recommended by Phoenix Contact
• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products
 Ensure that the protective or functional ground has been properly connected.
VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

Line characteristics

Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	approx. 1.5 mm
External cable diameter	6.6 mm ±0.4 mm
Wire colors	white-blue, orange-yellow
External sheath, color	black RAL 9005
Transmission medium	Copper
Conductor resistance	\leq 54.4 Ω /km
Working capacitance	\leq 65 pF (core-core)
	\leq 100 pF (core-shield)
Wave impedance	100 Ω ±5 Ω (f = 100 MHz)
Near end crosstalk attenuation (NEXT)	73 dB (with 1 MHz)



Technical data

Line characteristics

	70 dB (at 4 MHz)
	65 dB (at 10 MHz)
	57 dB (at 31.5 MHz)
	52 dB (at 62.5 MHz)
	48 dB (at 100 MHz)
Wave attenuation	2 dB (with 1 MHz)
	4.4 dB (at 4 MHz)
	7.4 dB (at 10 MHz)
	14 dB (at 31.5 MHz)
	20 dB (at 62.5 MHz)
	26 dB (at 100 MHz)
Return Loss	25 dB (at 4 MHz)
	30 dB (at 10 MHz)
	30 dB (at 31.5 MHz)
	30 dB (at 62.5 MHz)
	28 dB (at 100 MHz)
Signal speed	75 c
Shield attenuation	40 dB (30 MHz \le f \le 100 MHz)
Coupling resistance	200.00 m Ω /m (f \leq 30 MHz)
Nominal voltage, cable	300 V AC
Test voltage, cable	2000 V AC (50 Hz, 5 minutes)
Overall twist	Star quad
Shielding	Plastic-coated aluminum foil, tinned copper braided shield
Outer sheath, material	PE-X
Material conductor insulation	Foamed PE
Conductor material	silver-plated Cu litz wires
Cable weight	70 kg/km
Minimum bending radius, fixed installation	6 x D
Flame resistance	EN 60332-1-2
	EN 50266
	EN 60332-3-25
	NF C32-070, 2.1
	NF C32-070, 2.2
	UL 1685, 12 (FT4)
	in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
Halogen-free	According to EN 50267-2-1
Resistance to oil	according to IRM 902, 72 h at 100 °C
Other resistance	Resistance to fuels according to IRM 903, 168 h at 70 °C
Ambient temperature (operation)	-50 °C 90 °C (cable, fixed installation)
	-40 °C 90 °C (cable, flexible installation)

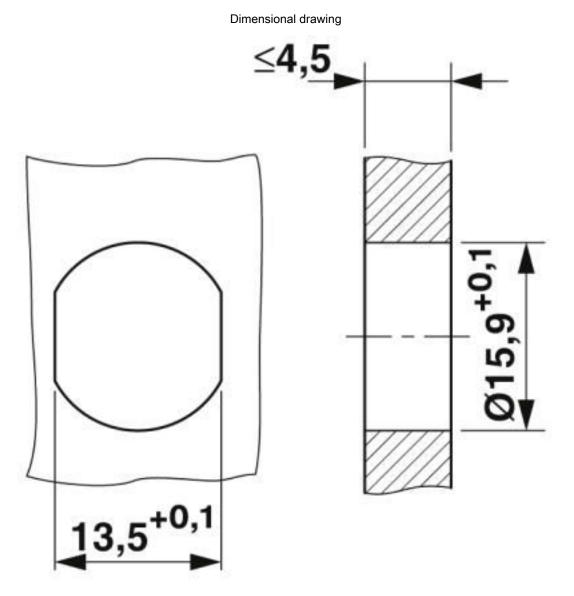


Technical data

Environmental Product Compliance

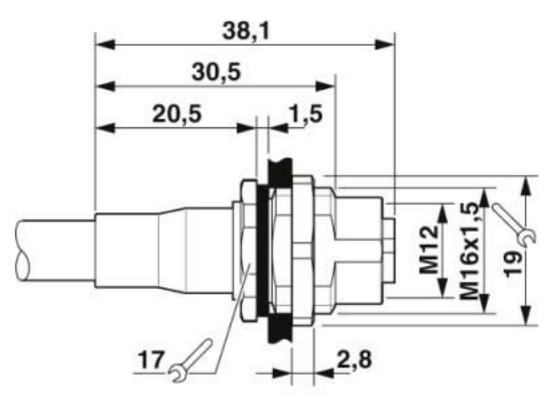
REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings



Housing cutout for M16 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

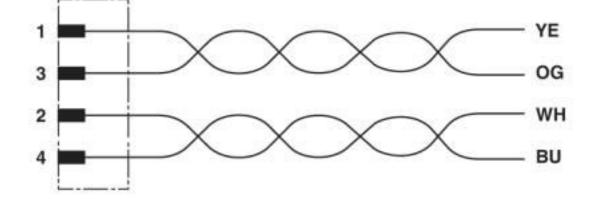




Dimensional drawing

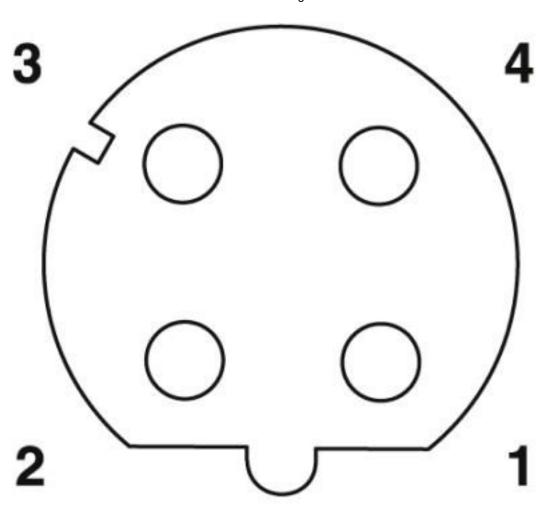
M12 flush-type connector

Circuit diagram



Contact assignment of the M12 socket





Schematic diagram

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Cable cross section



PROFINET RADOX[®] railway application CAT5 [937]

Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 4.0	27060300
eCl@ss 4.1	27060300
eCl@ss 5.0	27060300
eCl@ss 5.1	27060300
eCl@ss 6.0	27279200
eCl@ss 7.0	27060308
eCl@ss 8.0	27060308
eCl@ss 9.0	27060308



Classifications

ETIM

ETIM 4.0	EC000830
ETIM 5.0	EC002599
ETIM 6.0	EC001262
ETIM 7.0	EC001262

UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	26121604
UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC [I]060508

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