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Assembled PROFINET cable, CAT5e, shielded, star-quad, 22 AWG stranded (7-wire), RAL 6018 (yellow-green), M12 plug to M12 plug, line, length 3 m



### **Key Commercial Data**

Packing unit	1 pc	
GTIN	4 046356 690126	
GTIN	4046356690126	

### Technical data

#### Mechanical characteristics

Number of positions	4
Insertion/withdrawal cycles	≥ 100
Length of cable	3 m
Degree of protection	IP65/IP67/IP69K
No. of cable outlets	1

#### Ambient conditions

Ambient temperature (operation)	-25 °C 60 °C (cable, fixed installation)	
	-5 °C 50 °C (cable, flexible installation)	

### Material data

Flammability rating according to UL 94	V0

#### Electrical characteristics

Transmission characteristics (category)	CAT5 (IEC 11801:2002)
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### Standards and Regulations

Flammability rating according to UL 94	V0

#### Line characteristics



### Technical data

### Line characteristics

Cable type	PROFINET PVC stranded CAT5		
Cable abbreviation	2YY(ST)CY		
UL AWM style	21694		
Cable structure	1x4xAWG22/7; SF/TQ		
Conductor cross section	4x 0.34 mm²		
AWG signal line	22		
Conductor structure signal line	7x 0.25 mm		
Core diameter including insulation	1.55 mm		
External cable diameter	6.5 mm ±0.2 mm		
Wire colors	White, yellow, blue, orange		
External sheath, color	green RAL 6018		
Transmission medium	Copper		
Insulation resistance	≥ 500 MΩ*km		
Wave impedance	100 Ω ±15 Ω (at 100 MHz)		
Near end crosstalk attenuation (NEXT)	80 dB (with 1 MHz)		
	76 dB (at 4 MHz)		
	70 dB (at 10 MHz)		
	65 dB (at 16 MHz)		
	63 dB (at 20 MHz)		
	60 dB (at 31.25 MHz)		
	55 dB (at 62.5 MHz)		
	50 dB (at 100 MHz)		
Wave attenuation	2.1 dB (with 1 MHz)		
	4 dB (at 4 MHz)		
	6.3 dB (at 10 MHz)		
	8 dB (at 16 MHz)		
	9 dB (at 20 MHz)		
	11.4 dB (at 31.25 MHz)		
	16.5 dB (at 62.5 MHz)		
	21.3 dB (at 100 MHz)		
Signal speed	0.66 c		
Signal runtime	5.3 ns/m		
Coupling resistance	≤ 20.00 mΩ/m (at 10 MHz)		
Nominal voltage, cable	600 V		
Test voltage Core/Core	2000 V (50 Hz, 1 min.)		
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)		
Overall twist	Star quad		
Shielding	Aluminum-coated foil, tinned copper braided shield		
Optical shield covering	85 %		
Outer sheath, material	PVC		



### Technical data

### Line characteristics

Material, inner sheath	PVC		
Material conductor insulation	PE		
Conductor material	Tin-plated Cu litz wires		
Cable weight	67 kg/km		
Minimum bending radius, fixed installation	3 x D		
Minimum bending radius, flexible installation	7 x D		
Flame resistance	According to UL 1685 (CSA FT 4)		
Resistance to oil	Resistant to oil to a limited extent		
Other resistance	UV resistant According to UL 1581, Section 1200		
Ambient temperature (operation)	-40 °C 70 °C (cable, fixed installation)		
	-40 °C 70 °C (cable, flexible installation)		

### **Environmental Product Compliance**

China RoHS	Environmentally friendly use period: unlimited = EFUP-e	
	No hazardous substances above threshold values	

## **Drawings**

Schematic diagram



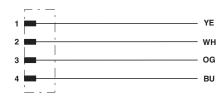
Pin assignment M12 male connector, 4-pos., D-coded, male side

#### Cable cross section

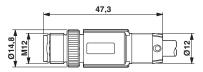


PROFINET PVC stranded CAT5 [93B]

Circuit diagram



Dimensional drawing



Contact assignment of the M12 connector

Plug, M12 x 1, straight, shielded

## **Approvals**

### Approvals



Approvals			
Approvals			
EAC			
Ex Approvals			
Approval details			
EAC	ERC		EAC-Zulassung

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