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Bus system cable, PROFINET CAT5 (100 Mbps), 4-position, PVC, green RAL 6018, shielded, Plug straight M12, D-coded, on free cable end, cable length: 10 m



### Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 021401
GTIN	4046356021401
Weight per Piece (excluding packing)	654.400 g
Custom tariff number	85444290
Country of origin	Poland

### Technical data

#### Dimensions

Length of cable	10 m
Stripping length of the free conductor end	50 mm

#### Ambient conditions

Ambient temperature (operation)	-25 °C 90 °C (Plug / socket)
Degree of protection	IP65
	IP67

#### General

Note	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling)
Rated current at 40°C	4 A
Rated voltage	48 V AC
	60 V DC
Number of positions	4



### Technical data

#### General

Insulation resistance	$\geq$ 100 M $\Omega$		
Coding	D - data		
Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps		
Status display	No		
Overvoltage category	11		
Degree of pollution	3		
Insertion/withdrawal cycles	≥ 100		
Material	Material		
Flammability rating according to UL 94	VO		
Contact material	CuSn		
Contact surface material	Ni/Au		
Contact carrier material	PA 6.6		
Material of grip body	TPU, hardly inflammable, self-extinguishing		
Material, knurls	Zinc die-cast, nickel-plated		
Standards and Regulations			
Flammability rating according to UL 94	VO		
Cable			
Cable type	PROFINET PVC stranded CAT5		
Cable type (abbreviation)	93B		
Cable abbreviation	2YY(ST)CY		
UL AWM style	21694		
Cable structure	1x4xAWG22/7; SF/TQ		
Conductor cross section	4x 0.34 mm <sup>2</sup>		
AWG signal line	22		
Conductor structure signal line	7x 0.25 mm		
Core diameter including insulation	1.55 mm		
Wire colors	White, yellow, blue, orange		
Overall twist	Star quad		
Shielding	Aluminum-coated foil, tinned copper braided shield		
Optical shield covering	85 %		
External sheath, color	green RAL 6018		
Outer sheath thickness	approx. 0.9 mm		
External cable diameter D	6.5 mm ±0.2 mm		
Minimum bending radius, fixed installation	3 x D		
Minimum bending radius, flexible installation	7 x D		
Cable weight	67 kg/km		
Outer sheath, material	PVC		
Material, inner sheath	PVC		
Material conductor insulation	PE		



## Technical data

#### Cable

Conductor material	Tin-plated Cu litz wires
Insulation resistance	$\geq$ 500 MΩ*km
Loop resistance	≤ 120.00 Ω/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)
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.)
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

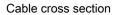
## Drawings



Circuit diagram

Schematic diagram

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

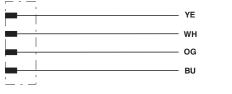


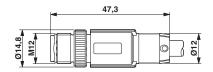


PROFINET PVC stranded CAT5 [93B]

Plug, M12 x 1, straight, shielded

Dimensional drawing





Contact assignment of the M12 connector

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