VS-M12FSBPS-IP20-93B/0,5 - Network cable

1404367

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Network cable, PROFINET CAT5 (100 Mbps), 4-position, PVC/PVC, green RAL 6018, Flush-type female connector straight M12, coding: D / IP67, on Plug straight RJ45 / IP20, cable length: 0.5 m

Commercial data

Item number	1404367
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AB18
Product key	ABNPAB
GTIN	4046356692366
Weight per piece (including packing)	71 g
Weight per piece (excluding packing)	63.646 g
Customs tariff number	85444290
Country of origin	PL

Technical data

Notes

General	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 10.1 Cord Sets for Balanced Cabling

Product properties

Product type	Circular connectors (device side)
Number of positions	4
Shielded	yes

Insulation characteristics

Overvoltage category	I
Degree of pollution	1

Material specifications

Flammability rating according to UL 94	V2
Housing material	CuZn/PA
Outer sheath, material	PVC
Conductor material	Tin-plated Cu litz wires

Electrical properties

Rated voltage (III/2)	50 V
Rated voltage (III/3)	50 V
Nominal voltage U_N	48 V
Transmission medium	Copper
Transmission speed	100 Mbps
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Wave impedance	100 Ω
Max. conductor resistance	120 Ω/km

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Interfaces

Signal type/category	PROFINET CAT5 (IEC 11801:2002), 100 Mbps

Connector

Connection 1

Type	Flush-type female connector straight M12 / IP67
Number of positions	4

Coding type	D
Degree of protection	IP67

Connection 2

Type	Plug straight RJ45 / IP20
Number of positions	4
Degree of protection	IP20

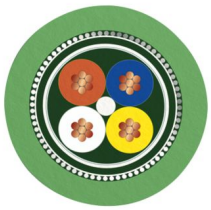
Connector specifications (second page)

Housing material	Plastic
Type of locking	Locking clips
Degree of protection	IP20
No. of pos.	RJ45
Contact switching type	Pin
Insertion/withdrawal cycles	≥ 1000
Contact resistance	< 20 mΩ (Contact)
	< 100 mΩ (shield)
Ambient temperature (operation)	-20 °C ... 70 °C

Cable/line

Cable length	0.5 m

PROFINET PVC stranded CAT5 [93B]

Dimensional drawing	
UL AWM Style	21695 (80 °C / 600 V)
Number of positions	4
Shielded	yes
Cable type	PROFINET PVC stranded CAT5 [93B]
Conductor structure	1x4xAWG22/7, SF/TQ
AWG signal line	22
Conductor cross-section	4x 0.34 mm²
Wire diameter incl. insulation	1.5 mm ±0.1 mm
External cable diameter	6.50 mm ±0.2 mm
Outer sheath, material	PVC
External sheath, color	green RAL 6018
Conductor material	Tin-plated Cu litz wires
Material wire insulation	PE
Single wire, color	white, yellow, blue, orange

Overall twist	Star quad
Optical shield covering	85 %
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 120.00 Ω/km
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Nominal voltage, cable	≤ 600 V
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
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1685 (CSA FT 4)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
Resistance to oil	OIL RES I according to UL 2256
Other resistance	UV resistant (according to UL 1581, Section 1200)
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-10 °C ... 70 °C (Cable, flexible installation)

Environmental and real-life conditions

Ambient conditions

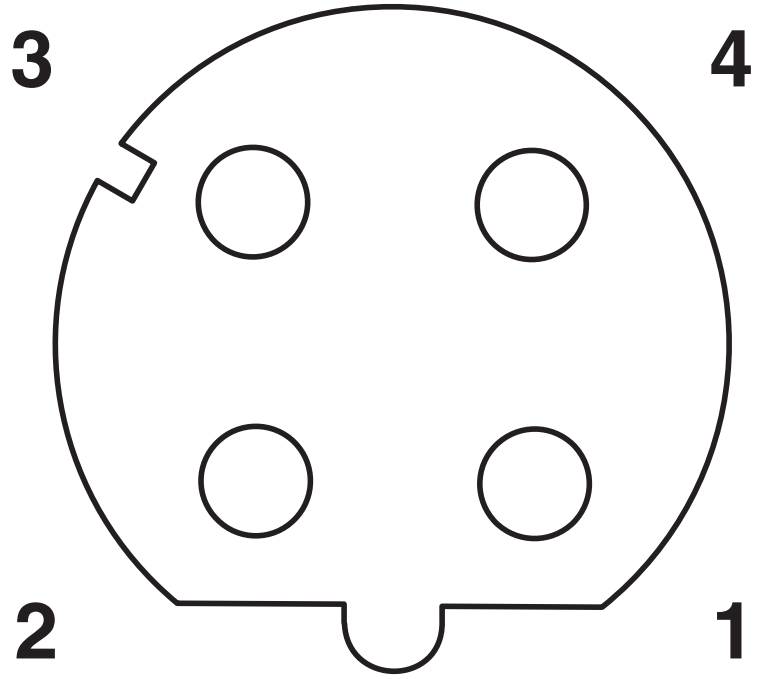
Degree of protection	IP20
	IP67/IP20
Ambient temperature (operation)	-40 °C ... 70 °C (cable, fixed installation)
	-5 °C ... 50 °C (Cable, flexible installation)
	Plug / socket
Resistance to oil	limited oil resistance

Standards and regulations

Flame resistance	according to UL 1685 (CSA FT 4)
Resistance to oil	limited oil resistance
Standard designation	M12 circular connector
Standards/specifications	according to IEC 61076-2-101

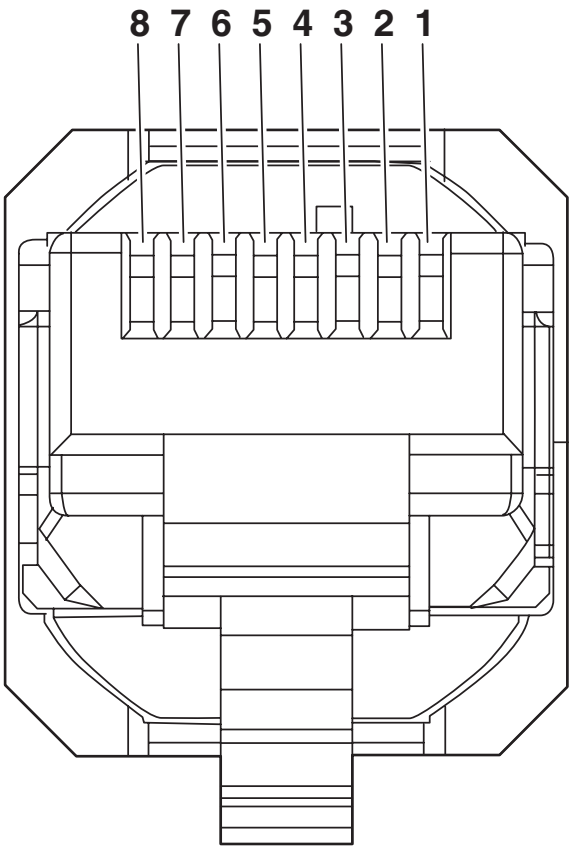
Drawings

Schematic diagram



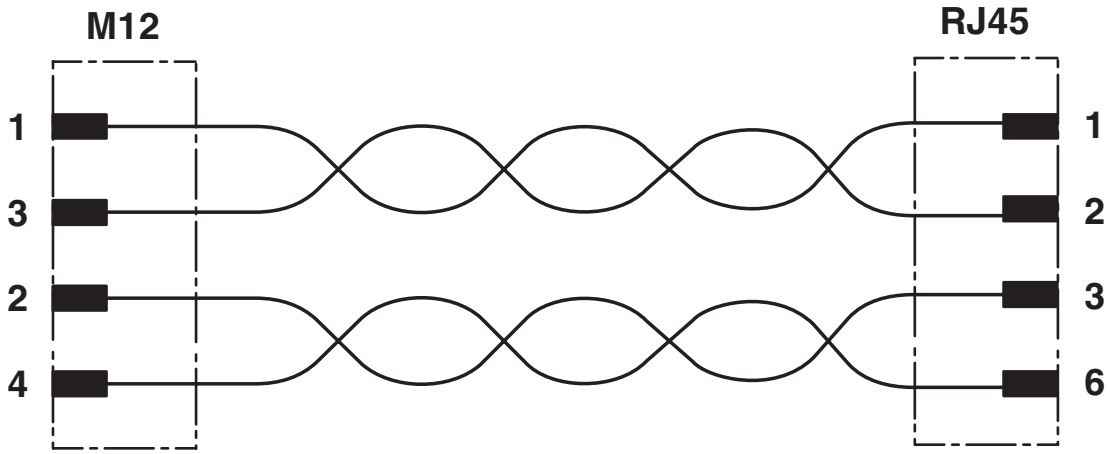
Pin assignment M12 socket, 4-pos., D-coded, female side

Schematic diagram



Connector pin assignment plug RJ45

Circuit diagram



Approvals

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EAC
Approval ID: 19060508

Classifications

ECLASS

ECLASS-13.0	27440103
ECLASS-15.0	27060307

ETIM

ETIM 10.0	EC002599

UNSPSC

UNSPSC 21.0	26121600

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol (UV-329)(CAS: 3147-75-9)
SCIP	e212201e-147b-4789-b353-d53998e725ab

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