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Bus system cable - VS-MSDS-IP20-93G-LI/2,0 - 1419147

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Assembled EtherCAT[®] cable, shielded, star quad, AWG 22 stranded (7-wire), RAL 6018 (yellow-green), M12 connector, SPEEDCON, 4-pos. on RJ45 connector/IP20, length: 2 m



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 540711

Technical data

Dimensions

Length of cable	2 m
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Ambient conditions

Degree of protection	IP20 (RJ45 connector)
	IP67 (M12 connector)

General data

Number of positions	4
Signal type/category	EtherCAT [®] CAT5 (IEC 11801), 100 Mbps
Degree of pollution	3

Characteristics head 1

Head type	Plug straight M12
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Characteristics head 2

Head type	Plug straight RJ45
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Standards and Regulations

Flammability rating according to UL 94	V0
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Cable

Cable type	PROFINET PVC stranded CAT5
Cable type (abbreviation)	93B
UL AWM style	21694

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Technical data

Cable

Signal type/category	PROFINET CAT5 (IEC 11801), 100 Mbps
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	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
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 500 MΩ*km
Loop resistance	≤ 120 Ω (per kilometer)
Wave impedance	100 Ω ±15 Ω (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)
Ambient temperature (installation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-50 °C ... 70 °C

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Classifications

eCl@ss

eCl@ss 4.0	27060307
eCl@ss 4.1	27060307
eCl@ss 5.0	27061801
eCl@ss 5.1	27060307
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27279218

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC000830
ETIM 4.0	EC001855
ETIM 5.0	EC001855

UNSPSC

UNSPSC 6.01	26121616
UNSPSC 7.0901	26121616
UNSPSC 11	26121604
UNSPSC 12.01	26121616
UNSPSC 13.2	26121616

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approvals submitted

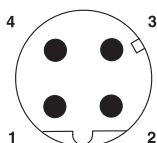
Approval details

EAC

Drawings

Bus system cable - VS-MSDS-IP20-93G-LI/2,0 - 1419147

Schematic diagram



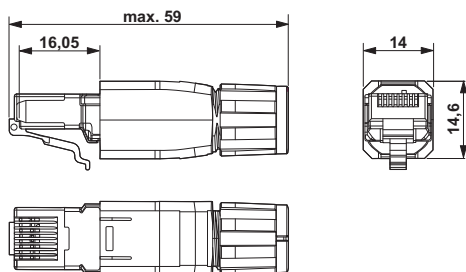
Pin assignment M12 male connector, 4-pos., D-coded, male side

Cable cross section



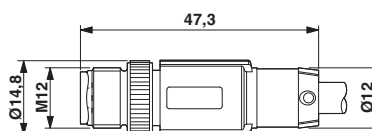
PROFINET PVC stranded CAT5 [93B]

Dimensional drawing



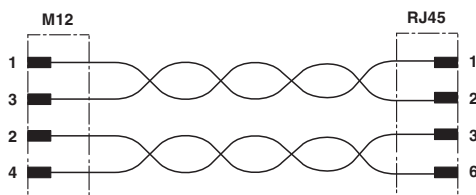
RJ45 connector, IP20

Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram





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