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Bus system flush-type socket, VARAN, 6-pos., M12, shielded, rear/screw mounting with M16 thread, with 1 m bus cable





Key commercial data

Packing unit	1 pc
GTIN	4 046356 323062
Weight per Piece (excluding packing)	114.2 g
Custom tariff number	85444290
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Dimensions

Length of cable	1 m

Ambient conditions

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
Degree of protection	IP67

General

Note	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
Rated current at 40°C	2 A



Technical data

General

Rated voltage	30 V
Number of positions	8
Contact resistance	$\leq 3 \text{ m}\Omega$
Insulation resistance	≥ 100 MΩ
Coding	A - standard
Status display	No
Surge voltage category	Ш
Pollution degree	3
Insertion/withdrawal cycles	> 100
Torque	2 Nm 3 Nm (Installation-side)

Material

Inflammability class according to UL 94	V0
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 66
Material, knurls	Nickel-plated brass
Sealing material	FKM

Cable

Cable type	VARAN
Cable type (abbreviation)	970
Cable abbreviation	Li9YD12Y
Cable structure	1x2xAWG22/19 + 1x4xAWG24/19
Conductor cross section	4x 0.25 mm² (signal line)
	2x 0.38 mm² (Power supply)
AWG signal line	24
AWG power supply	22
Conductor structure signal line	19x 0.13 mm
Conductor structure, voltage supply	19x 0.16 mm
Core diameter including insulation	1.35 mm (signal line)
	1.5 mm (Power supply)
Wire colors	Brown, blue, white/orange, white/green, green, orange
Type of pair shielding	Tinned copper braided shield, 95 % covering
Overall twist	1 star quad and 2 wires with 2 fillers
Shielding	Tinned copper-braided shield, approx. 85% covering
External sheath, color	Black RAL 9005
External cable diameter D	7.8 mm ±0.2 mm
Smallest bending radius, fixed installation	≥ 93 mm
Smallest bending radius, movable installation	≥ 93 mm



Technical data

Cable

Number of bending cycles	3000000
Bending radius	93 mm
Traversing path	2 m
Traversing rate	1 m/s
Acceleration	2 m/s²
Cable weight	81 kg/km
Outer sheath, material	SANTOPRENE halogen-free
Material, inner sheath	TPE
Material, filler	Yarn
Material conductor insulation	PP
Conductor material	Bare Cu litz wires
Insulation resistance	5 GΩ*km (Data cable)
Conductor resistance	77 Ω/m (Data cable)
Transmission characteristics (category)	CAT5 (IEC 11801:2002)
Working capacitance	50 nF (Data cable)
Wave impedance	100 Ω ±15 %
Nominal voltage, cable	125 V (Data cable)
	48 V (Power supply)
Test voltage, cable	2000 V (Power supply)
	max. 700 V AC (Data cable)
Halogen-free	in accordance with DIN EN 50267-2-1
Ambient temperature (operation)	-20 °C 80 °C (Cable)

Classifications

eCl@ss

eCl@ss 4.0	27250313
eCl@ss 4.1	27250313
eCI@ss 5.0	27143423
eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCI@ss 7.0	27449001
eCl@ss 8.0	27440103

ETIM

ETIM 3.0	EC002061
ETIM 4.0	EC000830
ETIM 5.0	EC002061



Classifications

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

Approvals

Approvals

Approvals

EAC

Ex Approvals

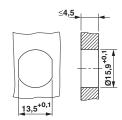
Approvals submitted

Approval details

EAC

Drawings

Dimensioned drawing



Schematic diagram



Pin assignment M12 socket, 8-pos., A-coded, view female side

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

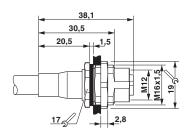


Cable cross section



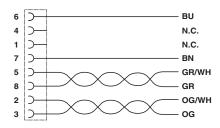
VARAN [970]

Dimensioned drawing



M12 flush-type connector

Circuit diagram



Contact assignment of the M12 socket

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