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Bus system flush-type socket, Ethernet, 4-pos., M12, shielded, D-coded, SPEEDCON, rear/screw mounting with Pg9 thread, can be positioned, with 0.5 m bus cable, $2 \times 2 \times 0.2 \text{ mm}^2$



Key Commercial Data

Packing unit	1 STK			
GTIN	4 046356 458429			
GTIN	4046356458429			

Technical data

Dimensions

Longth of coble	0.5 m
Length of cable	0.5 m
-	

Ambient conditions

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

General

Rated current at 40°C	4 A (Plug/socket in accordance with IEC 61076-2-101, cable technical data is to be observed)
Rated voltage	60 V
Number of positions	4
Coding	D - data
Overvoltage category	II
Degree of pollution	3

Material

Flammability rating according to UL 94	V0
Contact material	CuZn



Technical data

Material

Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material, knurls	Nickel-plated brass
Sealing material	NBR

Standards and Regulations

Flammability rating according to UL 94	V0
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Cable

Cable				
Cable type	PUR ETHERNET 2x2 FLEX			
Cable type (abbreviation)	93E			
UL AWM style	20963 (80°C/30 V)			
Signal type/category	Ethernet CAT5 (IEC 11801), 100 Mbps			
Cable structure	2x2xAWG26/7; SF/UTP			
Conductor cross section	2x 2x 0.14 mm²			
AWG signal line	26			
Conductor structure signal line	7x 0.16 mm			
Core diameter including insulation	0.98 mm			
Wire colors	white/orange-orange, white/green-green			
Twisted pairs	2 cores to the pair			
Overall twist	Two pairs with two fillers to the core			
Shielding	Aluminum-coated foil, tinned copper braided shield			
Optical shield covering	70 %			
External sheath, color	water blue RAL 5021			
Outer sheath thickness	1.2 mm			
External cable diameter D	6.4 mm ±0.2 mm			
Minimum bending radius, fixed installation	4 x D			
Minimum bending radius, flexible installation	8 x D			
Tensile strength GRP	≤ 80 N			
Cable weight	42 kg/km			
Outer sheath, material	PUR			
Material conductor insulation	Foamed PE			
Conductor material	Bare Cu litz wires			
Standards/specifications	Electrical requirements EN 50288-2-2			
Insulation resistance	≥ 500 MΩ*km			
Loop resistance	≤ 290.00 Ω/km			
Cable capacity	approx. 45 nF/km (at 1 kHz)			
Wave impedance	100 Ω ±5 Ω (at 100 MHz)			
Near end crosstalk attenuation (NEXT)	65.3 dB (with 1 MHz)			
	56.3 dB (at 4 MHz)			



Technical data

Cable

Cable					
	50.3 dB (at 10 MHz)				
	47.2 dB (at 16 MHz)				
	45.8 dB (at 20 MHz)				
	42.9 dB (at 31.25 MHz)				
	38.4 dB (at 62.5 MHz)				
	35.3 dB (at 100 MHz)				
Power-summated near end crosstalk attenuation (PSNEXT)	62.3 dB (with 1 MHz)				
	53.3 dB (at 4 MHz)				
	47.3 dB (at 10 MHz)				
	44.2 dB (at 16 MHz)				
	42.8 dB (at 20 MHz)				
	39.9 dB (at 31.25 MHz)				
	35.4 dB (at 62.5 MHz)				
	32.3 dB (at 100 MHz)				
Attenuation	3.2 dB (with 1 MHz)				
	6 dB (at 4 MHz)				
	9.5 dB (at 10 MHz)				
	12.1 dB (at 16 MHz)				
	13.6 dB (at 20 MHz)				
	17.1 dB (at 31.25 MHz)				
	24.8 dB (at 62.5 MHz)				
	32 dB (at 100 MHz)				
Return loss (RL)	23 dB (at 4 MHz)				
	24.1 dB (at 8 MHz)				
	25 dB (at 10 MHz)				
	25 dB (at 16 MHz)				
	25 dB (at 20 MHz)				
	23.6 dB (at 31.25 MHz)				
	21.5 dB (at 62.5 MHz)				
	20.1 dB (at 100 MHz)				
Signal runtime	5.3 ns/m				
Coupling resistance	\leq 100.00 m Ω /m (at 10 MHz)				
Nominal voltage, cable	≤ 100 V (Peak value, not for high-power applications)				
Test voltage Core/Core	700 V (50 Hz, 1 min.)				
Test voltage Core/Shield	700 V (50 Hz, 1 min.)				
Current carrying capacity of cable	2 A (according to DIN VDE 0891-1)				
Flame resistance	according to IEC 60332-1-2				
	in acc. to UL VW1				
Halogen-free	according to IEC 60754-1				



Technical data

Cable

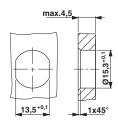
esistance to oil according to EN 60811-2-1			
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)		
	-20 °C 80 °C (cable, flexible installation)		
Ambient temperature (installation)	-20 °C 80 °C		
Ambient temperature (storage/transport)	-20 °C 80 °C		

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1				
China RoHS	Environmentally Friendly Use Period = 50				
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"				

Drawings

Dimensional drawing



Schematic diagram



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

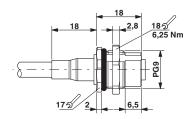
Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

Cable cross section



PUR ETHERNET 2x2 FLEX [93E]

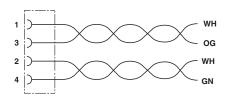
Dimensional drawing



M12 panel feed-through



Circuit diagram



Contact assignment of the M12 socket

Α	g	p	r	O	٧	а	Is
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Approvals

Approvals

UL Recognized / EAC

Ex Approvals

Approval details

UL Recognized	<i>7</i> .7	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm F		FILE E 118976
Nominal voltage UN			250 V	
Nominal current IN			4 A	
mm²/AWG/kcmil			22	

EAC	B.00767
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