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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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
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 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

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



Technical data

Cable

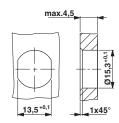
Resistance to oil	according to EN 60811-2-1	
Ambient temperature (operation)	-40 °C 80 °C (cable, fixed installation)	
	-20 °C 80 °C (cable, flexible installation)	
Ambient temperature (installation)	-20 °C 80 °C	
Ambient temperature (storage/transport)	-20 °C 80 °C	

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

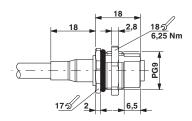
Housing cutout for Pg9 fastening thread, mounting panel with feed-through hole (alternatively with surface as protection against rotation)

Cable cross section



PUR ETHERNET 2x2 FLEX [93E]

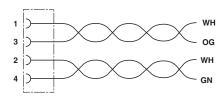
Dimensional drawing



M12 panel feed-through



Circuit diagram



Contact assignment of the M12 socket

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Approvals

UL Recognized / EAC

Ex Approvals

Approval details

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

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