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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.

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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









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Network cable, Ethernet CAT5 (0.1 Gbps), Ethernet CAT5e (0.1 Gbps), 8-position, PUR, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: A, on Plug Straight RJ45 Push Pull / IP67, Cable length: 5 m



# Key commercial data

Packing unit	1 pc
Custom tariff number	85444210
Country of origin	Poland

# Technical data

#### **Dimensions**

Length of cable	5 m
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#### Ambient conditions

Degree of protection	IP65 (M12 connector)
	IP67 (M12 connector)
	IP67 (RJ45 connector)

#### General data

Rated current at 40°C	1 A
Rated voltage	30 V
Number of positions	8
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 0.1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 0.1 Gbps
Standards/regulations	M12 connector IEC 61076-2-101

### Characteristics head 1

Head type	Plug Straight M12 SPEEDCON / IP67
No. of positions (pin connector pattern)	8



# Technical data

# Characteristics head 1

Coding	A (Standard)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	TPU GF (Contact carriers)
	TPU, hardly inflammable, self-extinguishing (Grip)
	Zinc die-cast, nickel-plated (Screw connection)
Contact resistance	$\leq 5 \text{ m}\Omega$
Insulation resistance	$\geq 100 \text{ M}\Omega$
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm
Ambient temperature (operation)	-25 °C 90 °C

# Characteristics head 2

Head type	Plug Straight RJ45 Push Pull / IP67
No. of positions (pin connector pattern)	8 (8)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PC (Contact carriers)
	PA GF (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-40 °C 70 °C

# Cable

Cable type	Ethernet, flexible, CAT5e
Cable type (abbreviation)	94B
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002), 0.1 Gbps
	Ethernet CAT5e (TIA 568B:2001), 0.1 Gbps
Cable structure	4x2xAWG26/7; SF/UTP
Conductor cross section	4x 2x 0.14 mm²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.98 mm
Thickness, insulation	0.25 mm
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown-brown
Twisted pairs	2 cores to the pair



# Technical data

# Cable

Overall twist	4 pairs
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	1 mm
External cable diameter D	6.4 mm ±0.2 mm
Smallest bending radius, fixed installation	25.6 mm
Smallest bending radius, movable installation	51.2 mm
Tensile strength short-term/long-term	≤ 100 N
Cable weight	47 kg/km
Outer sheath, material	PUR
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	$\geq 500~\text{M}\Omega^*\text{km}$
Loop resistance	$\leq$ 290 $\Omega$ (per kilometer)
Working capacitance	48 nF (At 1 kHz)
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	$\leq$ 100.00 m $\Omega$ /m (At 10 MHz)
Nominal voltage, cable	≤ 100 V
	300 V (Outer cable sheath)
Test voltage Core/Core	700 V (50 Hz, 1 min.)
Test voltage Core/Shield	700 V (50 Hz, 1 min.)
Flame resistance	IEC 60332-1-2
Halogen-free	According to IEC 60754-1
Resistance to oil	in accordance with DIN 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

# Classifications

# eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801



# Classifications

# eCl@ss

eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801
eCl@ss 8.0	27061801

# **ETIM**

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

# **UNSPSC**

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

# Drawings

### Schematic diagram



### Schematic diagram



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

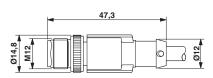
### Connector pin assignment plug RJ45

### Cable cross section



Ethernet, flexible, CAT5e [94B]

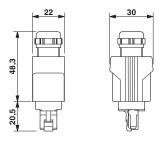
# Dimensioned drawing



Plug, M12 x 1, straight, shielded

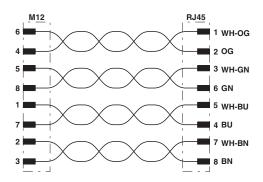


# Dimensioned drawing



RJ45 Push-Pull connector, IP67

# Circuit diagram



Contact assignment of the M12 and RJ45 plug

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