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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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Network cable, Ethernet CAT6_A (1 Gbps), 8-position, PUR, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: X, on Plug Straight RJ45 Push Pull / IP67, Cable length: 1 m





Key commercial data

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

Technical data

Dimensions

Length of cable	1 m

Ambient conditions

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

General data

Rated current at 40°C	0.5 A
Rated voltage	48 V
Number of positions	8
Signal type/category	Ethernet CAT6 _A , 1 Gbps
Standards/regulations	M12 connector IEC 61076-2-109
Characteristics head 1	
Head type	Plug Straight M12 SPEEDCON / IP67



Technical data

Characteristics head 1

No. of positions (pin connector pattern)	8
Coding	X (Data)
Color	black
Material (component)	CuZn (Contact)
	Ni/Au (Contact surface)
	PP (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 M Ω
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 10 Gbit
Cable type (abbreviation)	94F
UL AWM style	20963 (80°C/30 V)
Signal type/category	Ethernet CAT6 _A , 1 Gbps
Cable structure	4x2xAWG26/7; S/FTP
Conductor cross section	4x 2x 0.14 mm ²
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	1.04 mm
Thickness, insulation	0.28 mm (signal line)
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown- brown
Twisted pairs	2 cores to the pair



Technical data

Cable

Type of pair shielding	Aluminum-lined foil
Overall twist	4 pairs
Shielding	Tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
Outer sheath thickness	0.65 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 short-term/long-term	≤ 100 N
Cable weight	42 kg/km
Outer sheath, material	PUR
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	\geq 500 M Ω *km
Loop resistance	\leq 290 Ω (per kilometer)
Wave impedance	100 Ω ±5 Ω (at 100 MHz)
Signal runtime	5.13 ns/m
Shield attenuation	≥ 80 dB (at 30 100 MHz)
Nominal voltage, cable	≤ 100 V (at 20 °C)
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	27060307
eCl@ss 4.1	27060307
eCl@ss 5.0	27060307
eCl@ss 5.1	27060307



Classifications

eCl@ss

eCl@ss 6.0	27060390
eCl@ss 7.0	27060390
eCl@ss 8.0	27060390

ETIM

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	31261501
UNSPSC 13.2	26121616

Drawings

Schematic diagram



Pin assignment of M12 plug, 8-pos., X-coded, pin side view

Cable cross section

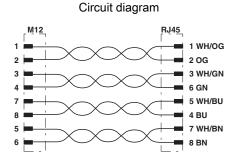


Ethernet 10 Gbit [94F]

Schematic diagram



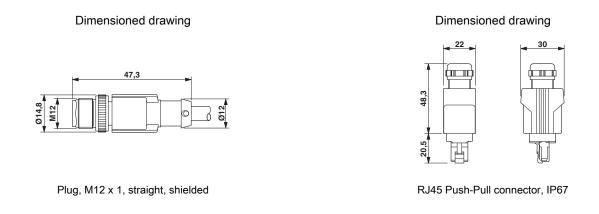
Connector pin assignment plug RJ45



Contact assignment of the M12 and RJ45 plug

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