# imall

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.

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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Network cable, Ethernet, 8-position, PUR halogen-free, water blue RAL 5021, shielded, Plug Straight M12 SPEEDCON / IP67, Coding: A, on Plug Straight RJ45 / IP20, Cable length: 2 m



### Key commercial data

Packing unit	1 PCE
GTIN	4 046356 799324
Custom tariff number	85444210
Country of origin	GERMANY

### Technical data

#### Dimensions

	Length of cable	2 m
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### General data

Characteristics head 1	
Degree of protection	IP20 (RJ45 plug-in connector)
Degree of protection	IP67 (M12 plug-in connector)
Degree of protection	IP65 (M12 plug-in connector)
Standards/regulations	M12 plug-in connector IEC 61076-2-101
Signal type/category	Ethernet CAT5e (TIA 568B:2001)
Signal type/category	Ethernet CAT5 (IEC 11801:2002)
Number of positions	8
Rated voltage	30 V
Rated current at 40°C	1 A

 Head design
 Plug Straight M12 SPEEDCON / IP67



### Technical data

#### Characteristics head 1

Coding	A (Standard)
Characteristics head 2	
Head design	Plug Straight RJ45 / IP20
Line characteristics	
Cable type	Ethernet
Cable type (abbreviation)	94B
UL AWM style	20963 (80 °C / 60 V)
Signal type/category	Ethernet CAT5 (IEC 11801:2002)
Signal type/category	Ethernet CAT5e (TIA 568B:2001)
Cable structure	4x2xAWG26/7; SF/UTP
Conductor cross section	4x 2x 0.14 mm <sup>2</sup>
AWG signal line	26
Conductor structure signal line	7x 0.16 mm
Core diameter including insulation	0.98 mm
Thickness, insulation	0.25 mm (signal line)
Thickness, insulation	1 mm (Outer cable sheath)
Wire colors	white/blue-blue, white/orange-orange, white/green-green, white/brown- brown
Twisted pairs	2 cores to the pair
Overall twist	4 pairs
Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	70 %
External sheath, color	water blue RAL 5021
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 MΩ*km (at 20 °C)
Conductor resistance	$\leq$ 290 $\Omega$ /km (at 20 °C)
Working capacitance	48 nF (At 1 kHz)
Wave impedance	100 Ω ± 5 Ω (At 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	≤ 100.00 mΩ/m (At 10 MHz)



### Technical data

#### Line characteristics

Nominal voltage, cabel	$\leq$ 100 V (at 20 °C)
Nominal voltage, cabel	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)
Ambient temperature (operation)	-20 °C 80 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C 80 °C
Ambient temperature (storage/transport)	-20 °C 80 °C

### Classifications

### ETIM

ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 5.0	EC001855

### UNSPSC

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

### eCl@ss

eCl@ss 4.0	27060306
eCl@ss 4.1	27060306
eCl@ss 5.0	27061801
eCl@ss 5.1	27061801
eCl@ss 6.0	27061801
eCl@ss 7.0	27061801

### Drawings



Schematic diagram



Schematic diagram



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

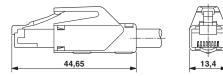
Connector pin assignment plug RJ45

Cable cross section



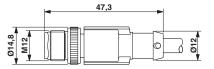
Ethernet [94B]

#### Dimensioned drawing

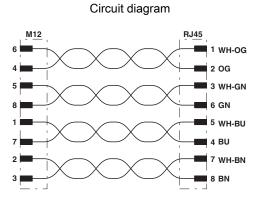


RJ45 plug-in connector, IP20

Dimensioned drawing



Plug, M12 x 1, straight, shielded



Contact assignment of the M12 and RJ45 plug

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