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.

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Suitable for PROFINET and EtherCAT®

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Network cable, Ethernet (100 Mbps), PROFINET (100 Mbps), EtherCAT[®] (100 Mbps), 4-position, PVC/PVC, Green RAL 6018, shielded, Plug Straight M8 / IP67, Coding: A, on Plug Straight RJ45 / IP20, Cable length: 1 m,

03



Key commercial data

Packing unit	1 pc
Custom tariff number	85444290
Country of origin	Germany

Technical data

Dimensions

Length of cable 1 m

Ambient conditions

Degree of protection	IP65 (M8 connectors)
	IP67 (M8 connectors)
	IP20 (RJ45 connector)

General data

Rated current at 40°C	1 A
Rated voltage	50 V
Number of positions	4
Signal type/category	Ethernet, 100 Mbps
	PROFINET, 100 Mbps
	EtherCAT [®] , 100 Mbps
Standards/regulations	M8 connector IEC 61076-2-104

Characteristics head 1

Head type	Plug Straight M8 / IP67



Technical data

Characteristics head 1

No. of positions (pin connector pattern)	4
Coding	A (Standard)
Color	black
Material (component)	CuSn (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 MΩ
Insertion/withdrawal cycles	≥ 100
Torque	0.2 Nm
Ambient temperature (operation)	-25 °C 90 °C

Characteristics head 2

Head type	Plug Straight RJ45 / IP20
No. of positions (pin connector pattern)	4 (8)
Color	black
Material (component)	CuSn (Contact)
	Ni/Au (Contact surface)
	PA (Contact carriers)
	PA (Housing)
Insertion/withdrawal cycles	≥ 750
Ambient temperature (operation)	-25 °C 80 °C

Cable

Cable type	PROFINET PVC stranded CAT5e
Cable type (abbreviation)	93B
UL AWM style	21694
Signal type/category	PROFINET CAT5 (IEC 11801:2002), 100 Mbps
	PROFINET CAT5e (TIA 568B:2001), 100 bps
Cable structure	1x4xAWG22/7; SF/TQ
Conductor cross section	4x 0.34 mm ²
AWG signal line	22
Conductor structure signal line	7x 0.25 mm
Core diameter including insulation	approx. 1.5 mm
Wire colors	White, yellow, blue, orange
Overall twist	Star quad



Technical data

Cable

Shielding	Aluminum-coated foil, tinned copper braided shield
Optical shield covering	85 %
External sheath, color	Green RAL 6018
Outer sheath thickness	approx. 0.9 mm
External cable diameter D	6.5 mm ±0.2 mm
Minimum bending radius, fixed installation	3 x D
Minimum bending radius, flexible installation	7 x D
Torsion force	± 180 °/m (30,000 torsion cycles)
Cable weight	67 kg/km
Outer sheath, material	PVC
Material, inner sheath	PVC
Material conductor insulation	PE
Conductor material	Tin-plated Cu litz wires
Insulation resistance	\geq 500 M Ω *km
Loop resistance	\leq 120 Ω (per kilometer)
Working capacitance	52 pF
Wave impedance	100 Ω ±15 Ω (at 100 MHz)
Signal runtime	5.3 ns/m
Coupling resistance	\leq 20.00 mΩ/m
Nominal voltage, cable	600 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Flame resistance	According to UL 1685 (CSA FT 4)
Resistance to oil	Resistant to oil to a limited extent
Other resistance	UV resistant According to UL 1581, Section 1200
Ambient temperature (operation)	-40 °C 70 °C (cable, fixed installation)
	-40 °C 70 °C (cable, flexible installation)
Ambient temperature (installation)	-20 °C 60 °C
Ambient temperature (storage/transport)	-50 °C 70 °C

Classifications

eCl@ss

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



Classifications

eCl@ss

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



Pin assignment M8 plug, 4-pos., view male side

Cable cross section



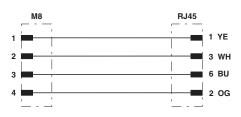
PROFINET PVC stranded CAT5e [93B]

Schematic diagram



Connector pin assignment plug RJ45

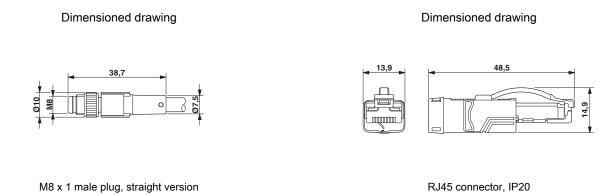
Circuit diagram



Contact assignment of the M8 and RJ45 plug

04/01/2014 Page 4 / 5





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04/01/2014 Page 5 / 5