



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!



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



Network cable - NBC-MSD/ 5,0-93G/R4AC SCO - 1407563


Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Network cable, EtherCAT® CAT5 (100 Mbps), 4-position, PVC, green RAL 6018, shielded, Plug straight M12 SPEEDCON / IP67, coding: D, on Plug straight RJ45 / IP20, cable length: 5 m



Key Commercial Data

| | |
|--------------|---|
| Packing unit | 1 STK |
| GTIN |  4 046356 779814 |
| GTIN | 4046356779814 |

Technical data

Dimensions

| | |
|-----------------|-----|
| Length of cable | 5 m |
|-----------------|-----|

Ambient conditions

| | |
|---------------------------------|-----------------------------------|
| Degree of protection | IP65 (M12 connector) |
| | IP67 (M12 connector) |
| | IP20 (RJ45 connector) |
| Ambient temperature (operation) | -25 °C ... 85 °C (M12 connector) |
| | -25 °C ... 80 °C (RJ45 connector) |

General data

| | |
|--------------------------|--------------------------------------|
| Rated current at 40°C | 1 A |
| Rated voltage | 48 V AC |
| | 60 V DC |
| Number of positions | 4 |
| Signal type/category | EtherCAT® CAT5 (IEC 11801), 100 Mbps |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Contact material | CuSn |
| Contact carrier material | TPU GF |

Network cable - NBC-MSD/ 5,0-93G/R4AC SCO - 1407563

Technical data

General data

| | |
|--------------------------|---------|
| Contact surface material | Ni/Au |
| Housing material | Plastic |

Characteristics head 1

| | |
|--|--|
| Head type | Plug straight M12 SPEEDCON / IP67 |
| No. of positions (pin connector pattern) | 4 |
| Coding | D (Data) |
| Color | black |
| Material (component) | CuSn (Contact) |
| | Ni/Au (Contact surface) |
| | PA (Contact carriers) |
| | TPU, hardly inflammable, self-extinguishing (Grip) |
| | Zinc die-cast, nickel-plated (Screw connection) |
| Insulation resistance | ≥ 100 MΩ |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 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 |
| | 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 |

Standards and Regulations

| | |
|-----------------------|-----------------|
| Standard designation | M12 connector |
| Standards/regulations | IEC 61076-2-101 |

Cable

| | |
|---------------------------------|--------------------------------------|
| Cable type | EtherCAT® |
| Cable type (abbreviation) | 93G |
| UL AWM style | 21694 |
| Signal type/category | EtherCAT® CAT5 (IEC 11801), 100 Mbps |
| Cable structure | 1x4xAWG22/7; SF/TQ |
| Conductor cross section | 4x 0.34 mm² |
| AWG signal line | 22 |
| Conductor structure signal line | 7x 0.25 mm |

Network cable - NBC-MSD/ 5,0-93G/R4AC SCO - 1407563

Technical data

Cable

| | |
|---|--|
| Core diameter including insulation | 1.55 mm |
| Wire colors | White, yellow, blue, orange |
| Overall twist | Star quad |
| 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 |
| 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 | ≥ 500 MΩ*km |
| Loop resistance | ≤ (per km) |
| Wave impedance | 100 Ω ±15 Ω (at 100 MHz) |
| Signal speed | 0.66 c |
| Signal runtime | 5.3 ns/m |
| Coupling resistance | ≤ 20.00 mΩ/m (at 10 MHz) |
| 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 |

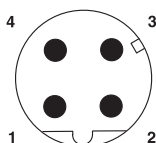
Environmental Product Compliance

| | |
|------------|---|
| 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

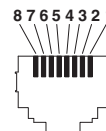
Network cable - NBC-MSD/ 5,0-93G/R4AC SCO - 1407563

Schematic diagram



Pin assignment M12 male connector, 4-pos., D-coded, male side

Schematic diagram

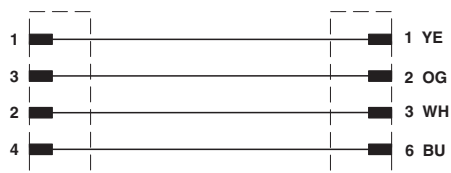


Connector pin assignment plug RJ45

Cable cross section



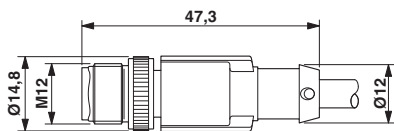
Circuit diagram



EtherCAT® [93G]

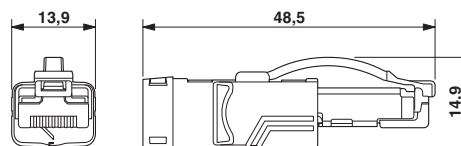
Contact assignment of the M12 and RJ45 plug

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



RJ45 connector, IP20

Approvals

Approvals

Approvals


UL Listed

Ex Approvals

Approval details

Network cable - NBC-MSD/ 5,0-93G/R4AC SCO - 1407563

Approvals

| | | | |
|--------------------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 335024 |
| Nominal voltage UN | | 60 V | |
| Nominal current IN | | 0.5 A | |

Phoenix Contact 2018 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>