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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Sensor/actuator cable, 4-position, PUR halogen-free, black-gray RAL 7021, Plug straight M12, A-coded, on Socket straight M8, cable length: 3 m

Why buy this product

- ☑ Easy and safe: 100% electrically tested plug-in components
- ☑ Our standard: robust halogen-free PUR cable

RoHS

Key Commercial Data

| acking unit 1 STK | |
|-------------------|-----------------|
| GTIN | 4 017918 180386 |
| GTIN | 4017918180386 |
| Sales Key | 02 |

Technical data

Dimensions

| Length of cable 3 m |
|---------------------|
|---------------------|

Ambient conditions

| Ambient temperature (operation) | -25 °C 90 °C (Plug / socket) |
|---------------------------------|------------------------------|
| Degree of protection | IP65 |
| | IP67 |
| | IP68 |

General

| Rated current at 40°C | 4 A | |
|-----------------------|-----------------------|--|
| Rated voltage | 48 V AC | |
| | 60 V DC | |
| Number of positions | 4 | |
| Insulation resistance | \geq 100 M Ω | |



Technical data

General

| Coding | A - standard | |
|------------------------------|-------------------------------|--|
| Standards/regulations | M12 connector IEC 61076-2-101 | |
| | M8 connector IEC 61076-2-104 | |
| Status display | No | |
| Protective circuit/component | Unwired | |
| Overvoltage category | П | |
| Degree of pollution | 3 | |
| Insertion/withdrawal cycles | ≥ 100 | |
| Torque | 0.4 Nm (M12 connector) | |
| | 0.2 Nm (M8 connectors) | |

Material

| Flammability rating according to UL 94 | НВ |
|--|---|
| Contact material | CuSn |
| Contact surface material | Ni/Au |
| Contact carrier material | TPU GF |
| Material of grip body | TPU, hardly inflammable, self-extinguishing |
| Material, knurls | Zinc die-cast, nickel-plated |
| Sealing material | NBR |

Standards and Regulations

| Standard designation | M12 connector |
|--|-----------------|
| Standards/regulations | IEC 61076-2-101 |
| Standard designation | M8 connector |
| Standards/regulations | IEC 61076-2-104 |
| Flammability rating according to UL 94 | НВ |

Cable

| Cable type | PUR halogen-free black |
|---|-------------------------------------|
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y-HF |
| Conductor cross section | 4x 0.25 mm² (Signal line) |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm ±0.02 mm (Signal line) |
| Thickness, insulation | ≥ 0.21 mm (Core insulation) |
| | approx. 0.5 mm (Outer cable sheath) |
| Wire colors | brown, white, blue, black |
| Overall twist | 4 wires, twisted |
| External sheath, color | black-gray RAL 7021 |
| External cable diameter D | 3.95 mm ±0.15 mm |
| Smallest bending radius, fixed installation | 20 mm |



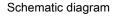
Technical data

Cable

| Smallest bending radius, movable installation | 40 mm |
|---|---|
| Number of bending cycles | 1000000 |
| Bending radius | 44 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 5 m/s ² |
| Cable weight | 23 kg/km |
| Outer sheath, material | PUR |
| Material conductor insulation | PP |
| Conductor material | Bare Cu litz wires |
| Insulation resistance | \geq 100 GΩ*km (at 20 °C) |
| Conductor resistance | max. 78 Ω/km (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage, cable | ≥ 3000 V |
| Special properties | Flexible cable conduit capable |
| | Silicone-free |
| | Free of substances which would hinder coating with paint or varnish |
| Flame resistance | in accordance with UL 758/1581 FT2 |
| | DIN EN 60332-2-2 (20 s) |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| Resistance to oil | in accordance with DIN EN 60811-2-1 |
| Other resistance | Highly resistant to acids, alkaline solutions and solvents |
| | hydrolysis and microbe resistant |
| | partly UV-resistant in accordance with DIN EN ISO 4892-2-A |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -25 °C 80 °C (cable, flexible installation) |
| Environmental Product Compliance | |
| | |

| China RoHS | Environmentally friendly use period: unlimited = EFUP-e | |
|------------|---|--|
| | No hazardous substances above threshold values | |

Drawings





Schematic diagram

Pin assignment M8 socket, 4-pos., view female side

Pin assignment M12 plug, 4-pos., A-coded, view plug side

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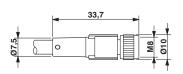


Cable cross section

PUR halogen-free black [PUR]

Plug, M12 x 1, straight, shielded

Dimensional drawing



Dimensional drawing

Circuit diagram

Socket M8 x 1, straight

Contact assignment of M12 plugs / M8 sockets

Approvals

Approvals

Approvals

EAC / UL Listed / cUL Listed / cULus Listed

Ex Approvals

Approval details

| EAC | EAC | | | EAC-Zulassung |
|--------------------|---------|---|--|---------------|
| UL Listed | ULISTED | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | | FILE E 221474 |
| | | | | |
| Nominal voltage UN | | 30 V | | |
| Nominal current IN | | 4 A | | |

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Approvals

| cUL Listed | CUL LISTED | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | | FILE E 221474 |
|--------------------|---------------|---|------|---------------|
| | | | | |
| Nominal voltage UN | | | 30 V | |
| Nominal current IN | | | 4 A | |

cULus Listed

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