

1417502

https://www.phoenixcontact.com/us/products/1417502

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 documentation. Our general terms of use for downloads are valid.



Sensor/actuator cable, 4-position, PVC, black RAL 9005, Plug straight M8, coding: A, on Socket straight M8, cable length: 10 m

Your advantages

• Easy and safe: 100 % electrically tested plug-in components

Commercial data

| Item number | 1417502 |
|--------------------------------------|--------------------------------|
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Note | Made to order (non-returnable) |
| Sales key | BF03 |
| Product key | AF1BCA |
| GTIN | 4055626117171 |
| Weight per piece (including packing) | 293.3 g |
| Weight per piece (excluding packing) | 274.635 g |
| Customs tariff number | 85444290 |
| Country of origin | DE |



1417502

https://www.phoenixcontact.com/us/products/1417502

Technical data

Product properties

| Product type | Sensor/actuator cable |
|----------------------------|-----------------------|
| Application | Standard |
| Number of positions | 4 |
| No. of cable outlets | 1 |
| Shielded | no |
| Coding | A |
| Insulation characteristics | |
| Overvoltage category | II |
| Degree of pollution | 3 |

Material specifications

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

Electrical properties

| Insulation resistance | ≥ 100 MΩ |
|--------------------------------|----------|
| Nominal voltage U _N | 48 V AC |
| | 60 V DC |
| Nominal current I _N | 4 A |

Mechanical properties

Mechanical data

| Insertion/withdrawal cycles | ≥ 100 |
|-----------------------------|-------|
| | |

Signaling

| Status display | no |
|------------------------|----|
| Status display present | no |

Connector

Connection 1

| Туре | Plug straight M8 |
|---------------------|------------------|
| Number of positions | 4 |
| Coding type | A |

Connection 2



1417502

https://www.phoenixcontact.com/us/products/1417502

| Туре | Socket straight M8 |
|---------------------|--------------------|
| Number of positions | 4 |

Cable/line

PVC black [PVC]

Dimensional drawing



| Cable weight | 33 kg/km |
|---|---|
| UL AWM Style | 2464 / 1729 (80°C/300 V) |
| Number of positions | 4 |
| Shielded | no |
| Cable type | PVC black [PVC] |
| Conductor structure signal line | 14x 0.15 mm |
| AWG signal line | 24 |
| Conductor cross section | 4x 0.25 mm² (Signal line) |
| Wire diameter incl. insulation | 1.17 mm ±0.05 mm |
| External cable diameter | 4.40 mm ±0.15 mm |
| Outer sheath, material | PVC |
| External sheath, color | black RAL 9005 |
| Conductor material | Bare Cu litz wires |
| Material wire insulation | PVC |
| Single wire, color | brown, white, blue, black |
| Thickness, insulation | ≥ 0.23 mm (Core insulation) |
| | ≥ 0.76 mm (Outer cable sheath) |
| Overall twist | 4 wires, twisted |
| Max. conductor resistance | max. 79 Ω/km (at 20 °C) |
| Insulation resistance | ≥ 100 MΩ*km (at 20 °C) |
| Nominal voltage, cable | ≤ 300 V |
| Test voltage | ≥ 3000 V |
| Minimum bending radius, fixed installation | 5 x D |
| Smallest bending radius, fixed installation | 22 mm |
| Flame resistance | As per UL-Style 2464 |
| Resistance to oil | EN 60811-2-1 |
| Ambient temperature (operation) | -25 °C 80 °C (cable, fixed installation) |
| | -10 °C 80 °C (Cable, flexible installation) |



1417502

https://www.phoenixcontact.com/us/products/1417502

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

| Standard designation | M8 connector |
|--------------------------|-----------------|
| Standards/specifications | IEC 61076-2-104 |

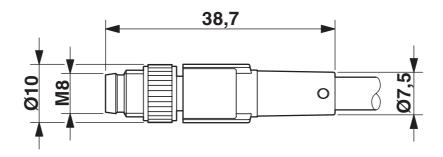


1417502

https://www.phoenixcontact.com/us/products/1417502

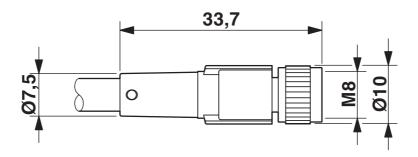
Drawings

Dimensional drawing



M8 x 1 male plug, straight version

Dimensional drawing



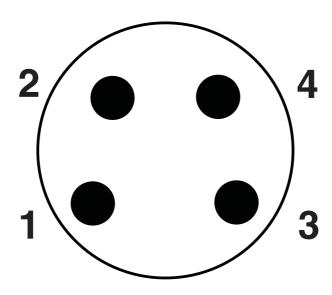
Socket M8 x 1, straight



1417502

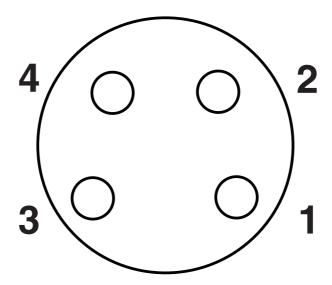
https://www.phoenixcontact.com/us/products/1417502

Schematic diagram



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

Schematic diagram



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



1417502

https://www.phoenixcontact.com/us/products/1417502

Circuit diagram



Contact assignment of M8 plugs/sockets



1417502

https://www.phoenixcontact.com/us/products/1417502

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1417502

| UL Listed Approval ID: FILE E 2214 | UL Listed Approval ID: FILE E 221474 | | | |
|------------------------------------|---|--------------------------------|-------------------|-------------------------------|
| | Nominal voltage U _N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| keine | | | | |
| | 30 V | 4 A | - | - |

| cUL Listed Approval ID: FILE E 2 | L Listed roval ID: FILE E 221474 | | | |
|----------------------------------|----------------------------------|--------------------------------|-------------------|-------------------------------|
| | Nominal voltage U _N | Nominal current I _N | Cross section AWG | Cross section mm ² |
| keine | | | | |
| | 30 V | 4 A | - | - |



1417502

https://www.phoenixcontact.com/us/products/1417502

Classifications

ECLASS

| | ECLASS-13.0 | 27060311 | | |
|--------|-------------|----------|--|--|
| | ECLASS-15.0 | 27060311 | | |
| ETIM | | | | |
| | ETIM 9.0 | EC001855 | | |
| UNSPSC | | | | |
| | UNSPSC 21.0 | 26121600 | | |



1417502

https://www.phoenixcontact.com/us/products/1417502

Environmental product compliance

EU RoHS

| Fulfills EU RoHS substance requirements | Yes, No exemptions | | |
|---|--|--|--|
| China RoHS | | | |
| Environment friendly use period (EFUP) | EFUP-E | | |
| | No hazardous substances above the limits | | |
| ELL DE ACIL CYALC | | | |
| EU REACH SVHC | | | |
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% | | |

Phoenix Contact 2025 @ - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com