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Sensor/Actuator cable, 8-position, PUR halogen-free, black-gray RAL 7021, free cable end, on Socket angled M12, A-coded, Cable length: 1.5 m

Why buy this product

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



Key commercial data

| Packing unit | 1 pc |
|--------------------------------------|-----------------|
| GTIN | 4 017918 957452 |
| Weight per Piece (excluding packing) | 77.8 g |
| Custom tariff number | 85444290 |
| Country of origin | Poland |

Technical data

Dimensions

| Length of cable | 1.5 m |
|--------------------------------------------|-------|
| Stripping length of the free conductor end | 50 mm |

Ambient conditions

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

General

| Rated current at 40°C | 2 A |
|-----------------------|---------------------|
| Rated voltage | 30 V |
| Number of positions | 8 |
| Contact resistance | \leq 5 m Ω |



Technical data

General

| Insulation resistance | \geq 100 MΩ |
|------------------------------|-------------------------------|
| Coding | A - standard |
| Standards/regulations | M12 connector IEC 61076-2-101 |
| Status display | No |
| Protective circuit/component | Unwired |
| Surge voltage category | Ш |
| Pollution degree | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

| Inflammability class according to UL 94 | НВ |
|-----------------------------------------|---------------------------------------------|
| Contact material | CuZn |
| 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 |

Cable

| Cable type | PUR halogen-free black |
|-----------------------------------------------|----------------------------------------------------|
| Cable type (abbreviation) | PUR |
| Cable abbreviation | Li9Y11Y |
| UL AWM style | 20549 / 10493 (80°C/300 V) |
| Conductor cross section | 8x 0.25 mm ² |
| AWG signal line | 24 |
| Conductor structure signal line | 32x 0.10 mm |
| Core diameter including insulation | 1.17 mm ±0.02 mm |
| Thickness, insulation | ≥ 0.21 mm |
| Wire colors | white, brown, green, yellow, gray, pink, blue, red |
| Overall twist | 8 wires around filler to the core |
| External sheath, color | black-gray RAL 7021 |
| Outer sheath thickness | approx. 0.8 mm |
| External cable diameter D | 5.9 mm ±0.15 mm |
| Minimum bending radius, fixed installation | 8 x D |
| Minimum bending radius, flexible installation | 10 x D |
| Number of bending cycles | 4000000 |
| Bending radius | 59 mm |
| Traversing path | 10 m |
| Traversing rate | 3 m/s |
| Acceleration | 10 m/s ² |
| Cable weight | 46 kg/km |



Technical data

Cable

| Outer sheath, material | PUR |
|---------------------------------|---------------------------------------------------------------------|
| Material, filler | PE |
| Material conductor insulation | PP |
| Conductor material | Bare Cu litz wires |
| Conductor resistance | \leq 78 Ω /km |
| 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 |
| | Flexible |
| Flame resistance | in accordance with DIN UL-Style 20549 |
| 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 |
| | Low adhesion |
| | abrasion-resistant |
| Ambient temperature (operation) | -40 °C 80 °C (cable, fixed installation) |
| | -25 °C 80 °C (cable, flexible installation) |

Classifications

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 |
| eCl@ss 8.0 | 27279218 |

ETIM

| ETIM 2.0 | EC000830 |
|----------|----------|
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC001855 |

UNSPSC

| UNSPSC 6.01 | 31251501 |
|-------------|----------|
|-------------|----------|



Classifications

UNSPSC

| UNSPSC 7.0901 | 31251501 |
|---------------|----------|
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

Approvals submitted

Approval details

| UL Listed | |
|--------------------|------|
| | |
| Nominal current IN | 2 A |
| Nominal voltage UN | 30 V |

| cUL Listed | |
|--------------------|------|
| | |
| Nominal current IN | 2 A |
| Nominal voltage UN | 30 V |

EAC

cULus Listed



Accessories

Accessories

Conductor marking

Insert label - PABA WH/15 - 1013151



Insert label, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA YE/15 - 1013698



Insert label, Strip, yellow, unlabeled, can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Insert label - PABA RD/15 - 1013944



Insert label, Strip, red, unlabeled, can be labeled with: Plotter, Mounting type: Thread on, Cable diameter: 0.6-50 mm, Lettering field: 15 x 4 mm

Cutting tools

Diagonal cutter - CUTFOX-S VDE - 1212207



Diagonal cutter for copper and aluminum conductors, VDE-tested

Marker carrier cable

Conductor marker carrier - PATG 2/15 - 1013038



Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 2-4 mm, Lettering field: 4 x 15 mm



Accessories

Conductor marker carrier - PATG 3/15 - 1013041



Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 4-7 mm, Lettering field: 4 x 15 mm

Conductor marker carrier - PATG 4/15 - 1013054



Conductor marker carrier, transparent, unlabeled, Mounting type: slide on, Cable diameter: 6-10 mm, Lettering field: 4 x 15 mm

Marker pen

Marker pen - B-STIFT - 1051993



Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

Protective cap

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899



M12 sealing cap with fixing band, for sensor cables, for free M12 sockets

Safety locking

Locking clip - SAC-M12-EXCLIP-F - 1558991



Screwdriver tools



Accessories

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600

Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and for M12 connectors with QUICKON fast connection technology, for 4 mm hexagonal drive

Stripping tool

Stripping tool - WIREFOX SAC-1 - 1212757



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 3.2 to 4.4 mm, any stripping length

Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

Torque tool

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Accessories

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

Drawings

Schematic diagram



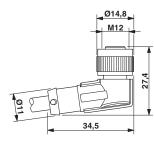
2 1

Schematic diagram



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

Dimensioned drawing



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

Cable cross section



PUR halogen-free black [PUR]

M12 x 1 socket, angled



Circuit diagram

| | r | |
|---|----|--------|
| 1 | Þ— | wн |
| 2 | b— | BN |
| 3 | Ь— | GN |
| 4 | b— | YE |
| 5 | Б— | GY |
| 6 | 5 | PK |
| 7 | Б | BU |
| 8 | К | RD |
| 0 | 2 | κD |

Contact assignment of the M12 socket

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