

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12, coding: B, cable length: 5 m



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 1 pc |
| GTIN | |
| GTIN | 4017918900137 |

Technical data

Dimensions

| | |
|--|-------|
| Length of cable | 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 |

General

| | |
|-----------------------|--|
| Note | Further products with variable cable lengths can be found in the accessories section |
| Rated current at 40°C | 4 A |
| Rated voltage | 48 V AC |
| | 60 V DC |
| Number of positions | 2 |
| Insulation resistance | ≥ 100 MΩ |
| Coding | B - inverse |
| Signal type/category | PROFIBUS, 12 Mbps (max. 100 m) |
| Status display | No |

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Technical data

General

| | |
|-----------------------------|------------------------|
| Overvoltage category | II |
| Degree of pollution | 3 |
| Insertion/withdrawal cycles | ≥ 100 |
| Torque | 0.4 Nm (M12 connector) |

Material

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

Pin assignment

| | |
|---|---------------------------|
| Contact Color (signal designation) Contact (optional) | 2 (Socket) GN (A cable) |
| | 4 (Socket) RD (B cable) |

Cable

| | |
|---|--|
| Cable type | PROFIBUS |
| Cable type (abbreviation) | 910 |
| UL AWM style | 21198 (80°C/300 V) |
| Cable structure | 1x2xAWG24/19 |
| Conductor cross section | 2x 0.25 mm ² (Signal line) |
| AWG signal line | 24 |
| Conductor structure signal line | 19x 0.13 mm |
| Core diameter including insulation | 2.55 mm ±0.07 mm |
| Wire colors | Red, green |
| Overall twist | 2 cores with 2 fillers to the core |
| Shielding | Plastic-coated aluminum foil, tinned copper braided shield |
| Optical shield covering | 85 % |
| External sheath, color | violet RAL 4001 |
| External cable diameter D | 7.8 mm ±0.2 mm |
| Smallest bending radius, fixed installation | 40 mm |
| Smallest bending radius, movable installation | 65 mm |
| Number of bending cycles | 4000000 |
| Bending radius | 65 mm |
| Traversing path | 4.5 m |
| Traversing rate | 3 m/s |
| Acceleration | 3 m/s ² |
| Number of bending cycles | 5000000 |
| Bending radius | 80 mm |
| Traversing path | 4.5 m |

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Technical data

Cable

| | |
|---------------------------------|---|
| Traversing rate | 3 m/s |
| Acceleration | 3 m/s ² |
| Cable weight | 90 kg/km |
| Outer sheath, material | PUR |
| Material, filler | PP |
| Material conductor insulation | Foam-Skin PP |
| Conductor material | Tin-plated Cu litz wires |
| Insulation resistance | ≥ 5 GΩ*km |
| Conductor resistance | ≤ 78.6 Ω/km |
| Cable capacity | nom. 30 pF/m |
| Wave impedance | 150 Ω ±10 % (3 MHz ... 20 MHz) |
| Attenuation | ≤ 0.049 dB/m (at 16 MHz) |
| Nominal voltage, cable | 30 V |
| Test voltage Core/Core | 1500 V (50 Hz, 1 min.) |
| Test voltage Core/Shield | 1500 V (50 Hz, 1 min.) |
| Flame resistance | UL 1581, Sec. 1060 (FT-1) |
| | IEC 60332-1-2 |
| Halogen-free | in accordance with DIN VDE 0472 part 815 |
| | according to IEC 60754-1 |
| Other resistance | Low adhesion |
| Ambient temperature (operation) | -40 °C ... 80 °C (cable, fixed installation) |
| | -30 °C ... 80 °C (cable, flexible installation) |
| | ≤ 70 °C (cable, drag chain applications) |

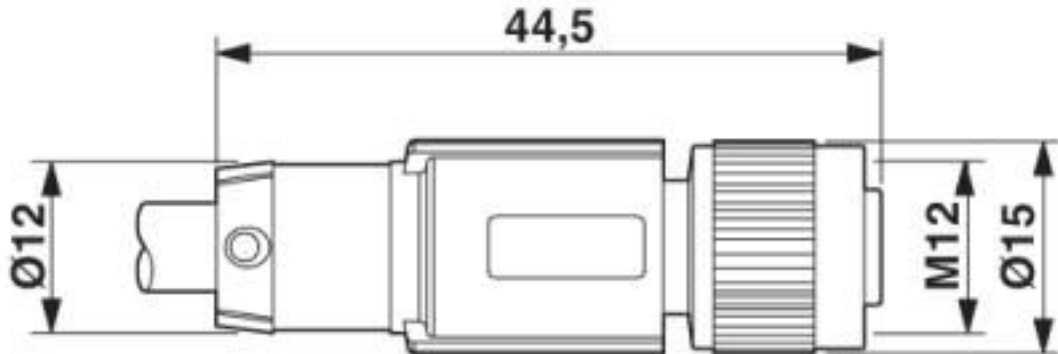
Environmental Product Compliance

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

Drawings

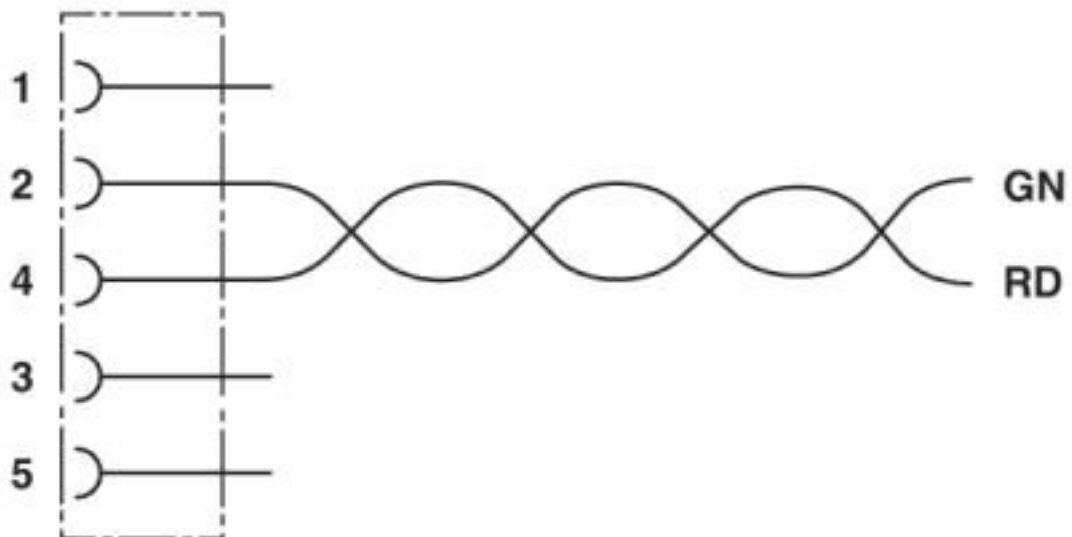
Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Dimensional drawing



M12 x 1 socket, straight, shielded

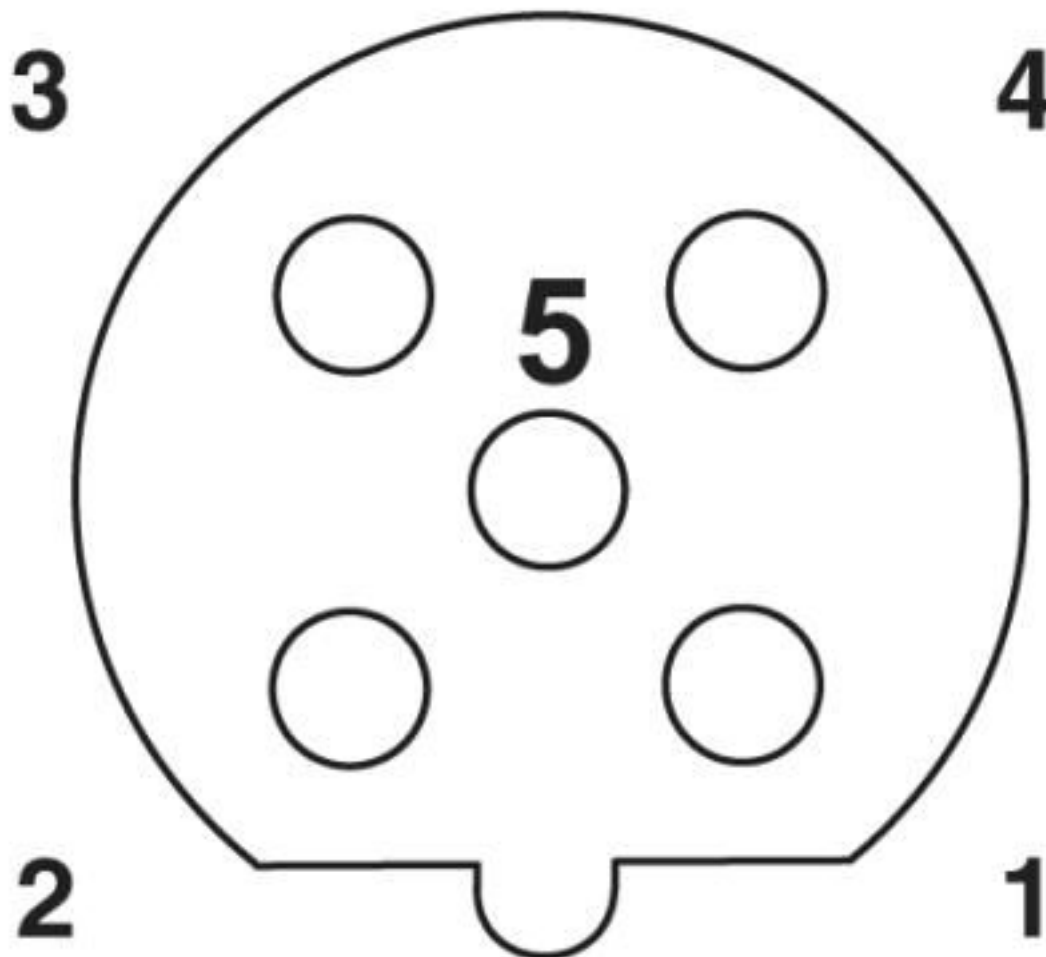
Circuit diagram



Contact assignment of the M12 socket

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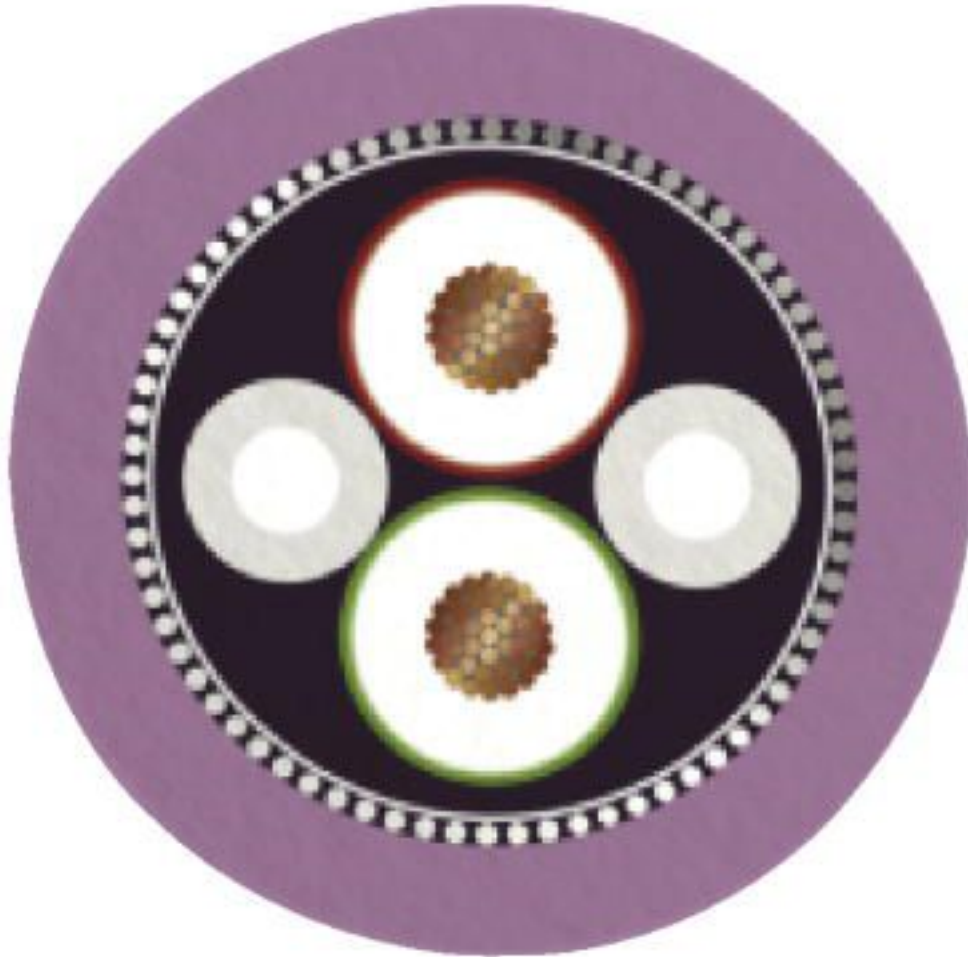
Schematic diagram



Pin assignment M12 socket, 5-pos., B-coded, female side

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Cable cross section



PROFIBUS [910]

Classifications

eCl@ss

| | |
|---------------|----------|
| eCl@ss 10.0.1 | 27060308 |
| eCl@ss 4.0 | 27060300 |
| eCl@ss 4.1 | 27060300 |
| eCl@ss 5.0 | 27061800 |
| eCl@ss 5.1 | 27061800 |
| eCl@ss 6.0 | 27279200 |
| eCl@ss 7.0 | 27279218 |
| eCl@ss 8.0 | 27279218 |
| eCl@ss 9.0 | 27060308 |

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Classifications

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000830 |
| ETIM 3.0 | EC001855 |
| ETIM 4.0 | EC001855 |
| ETIM 5.0 | EC002599 |
| ETIM 6.0 | EC001262 |
| ETIM 7.0 | EC001262 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 31251501 |
| UNSPSC 7.0901 | 31251501 |
| UNSPSC 11 | 31251501 |
| UNSPSC 12.01 | 31251501 |
| UNSPSC 13.2 | 31251501 |
| UNSPSC 18.0 | 26121604 |
| UNSPSC 19.0 | 26121604 |
| UNSPSC 20.0 | 26121604 |
| UNSPSC 21.0 | 26121604 |

Approvals


Approvals

Approvals

UL Listed / cUL Listed / EAC-RoHS / EAC / cULus Listed

Ex Approvals

Approval details

| | | | |
|--------------------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
| Nominal voltage UN | 300 V | | |
| Nominal current IN | 4 A | | |

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Approvals

| | | | |
|--------------------|--|---|---------------|
| cUL Listed | | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 221474 |
| Nominal voltage UN | | 300 V | |
| Nominal current IN | | 4 A | |

| | | |
|----------|--|--------------------------|
| EAC-RoHS | | RU D- DE.HB35.B.00387 |
|----------|--|--------------------------|

| | | |
|-----|--|--------------------------|
| EAC | | RU C- DE.BL08.B.00286 |
|-----|--|--------------------------|

| | |
|--------------|--|
| cULus Listed | |
|--------------|--|

Accessories

Accessories

Circular connector (cable-side)

Data connector - SACC-M12FSB-2PL SH PB - 1424680



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Socket straight M12, Coding: B, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Data connector - SACC-M12MSB-2PL SH PB - 1424678



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Plug straight M12, Coding: B, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Accessories

Data connector - SACC-M12FRB-2PL SH PB - 1424681



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Socket angled M12, Coding: B, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Data connector - SACC-M12MRB-2PL SH PB - 1424679



Data connector, PROFIBUS DP (12 Mbps), 2-position, shielded, Plug angled M12, Coding: B, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

Data connector - SACC-FSB-2QO SH PB SCO - 1413932



Data connector, PROFIBUS DP (12 Mbps), 2-position, halogen-free, shielded, Socket straight M12 SPEEDCON, Coding: B, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

Data connector - SACC-MSB-2QO SH PB SCO - 1413931



Data connector, PROFIBUS DP (12 Mbps), 2-position, halogen-free, shielded, Plug straight M12 SPEEDCON, Coding: B, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

Data connector - SACC-M12FSB-5CON-PG9 SH AU - 1507777



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket straight M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Accessories

Data connector - SACC-M12MSB-5CON-PG9 SH AU - 1507764



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug straight M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6.5 mm ... 8.5 mm

Data connector - SACC-M12FRB-5CON-PG 9-SH - 1430420



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Socket angled M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

Data connector - SACC-M12MRB-5CON-PG 9-SH - 1430417



Data connector, PROFIBUS, INTERBUS, 5-position, shielded, Plug angled M12, Coding: B, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg9, external cable diameter 6 mm ... 8 mm

Corrugated pipe

Protective hose - WP-PA HF 13,0 BK - 3240681



Polyamide protective hose, inflammability class V0, UV resistant

Protective hose - WP-PA HF-HB 13,0 BK - 3240839



Polyamide protective hose, inflammability class HB, UV resistant

Cutting tools

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Accessories

Cable-cutting tool - CUTFOX 12 - 1212128



Cable cutter, for copper and aluminum up to 12 mm diameter (up to 35 mm²)

Diagonal cutter - CUTFOX-S VDE - 1212207



Diagonal cutter for hard (piano wire) and soft wires, VDE 1000 V AC/1500 V DC tested

Data cable preassembled

Bus system cable - SAC-2P-M12MSB/910/... - 1538047



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, coding: B, on free cable end, cable length: Free input (0.2 ... 40.0 m)

Bus system cable - SAC-2P-M12MSB-M12FSB/910/... - 1538089



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: Free input (0.2 ... 40.0 m)

Bus system cable - SAC-2P-M12FSB/910/... - 1538063



Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, violet RAL 4001, shielded, free cable end, on Socket straight M12, coding: B, cable length: Free input (0.2 ... 40.0 m)

Electronics pliers

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Accessories

Diagonal cutter - MICROFOX-SP-1 - 1212487



Electronic diagonal cutter, tapered head, without chamfer, with opening spring, non-reflective phosphate-treated surface, punched version

Plug for cable screw gland

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



Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Screwdriver tools

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 M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Stripping tool

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Accessories

Stripping tool - WIREFOX 4 - 1212156



Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 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

Stripping tool - WIREFOX-E 4 - 1212704



Stripping tool, for cables and conductors (especially for rubber and silicone insulations) from 0.1 - 4 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

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

T-distributor

T distributor - SAC-5PT-FB/2XMB PBDP SH - 1424711



T distributor, PROFIBUS DP (12 Mbps), 5-position, shielded, Socket straight M12, coding: B, on Plug straight M12, coding: B and Plug straight M12, coding: B

T distributor - SAC-5PT-FB/MB-MBF PBDP SH - 1424713



T distributor, PROFIBUS DP (12 Mbps), 5-position, shielded, Socket straight M12, coding: B, on Plug straight M12, coding: B and Plug straight M12, coding: B, Thread M12 plug input not rotatable

Terminal resistor

Bus system cable - SAC-2P- 5,0-910/M12FSB - 1507308

Accessories

Termination resistor - SAC-5P-M12MS PB TR - 1507803



Terminating resistor PROFIBUS M12

Torque tool

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

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407



Stripping tool, for the multi-level stripping of shielded cables

Protective hose adapter - WP-CTA POM 13,0 BK - 1422884



Protective hose adapter, for corrugated hoses with a nominal size of 13 (10 x 13), corrugated in parallel

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