SAC-2P-MRB-FRB SCO/910/... - Bus system cable

1433278

https://www.phoenixcontact.com/us/products/1433278

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Plug angled M12 SPEEDCON, coding: B, on Socket angled M12 SPEEDCON, coding: B, cable length: Free input (0.2 m ... 100.0 m)

Commercial data

Item number	1433278
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF17
Product key	AF1CKC
Customs tariff number	85444290
Country of origin	PL

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Number of positions	2
No. of cable outlets	1
Shielded	yes
Coding	B

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	PROFIBUS
Signal type/category	PROFIBUS, 12 Mbps (max. 100 m)

Signaling

Status display	no
Status display present	no

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Transmission medium	Copper
Transmission speed	12 Mbps (max. 100 m)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Material specifications

Flammability rating according to UL 94	HB
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

Connection data

Connection assignment

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

Connector

Connection 1

Type	Plug angled M12 SPEEDCON
Number of positions	2
Locking type	SPEEDCON
Coding type	B (inverse)

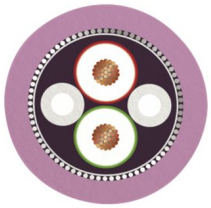
Connection 2

Type	Socket angled M12 SPEEDCON
Number of positions	2
Locking type	SPEEDCON
Coding type	B

Cable/line

Cable length	Free input (0.2 m ... 100.0 m)

PROFIBUS [910]

Dimensional drawing	
UL AWM Style	21198 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	PROFIBUS [910]
Conductor structure	1x2xAWG24/19
AWG signal line	24
Conductor cross-section	2x 0.25 mm² (Signal line)
Wire diameter incl. insulation	2.55 mm ±0.05 mm
External cable diameter	7.70 mm ±0.02 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Single wire, color	red, green
Overall twist	2 cores with 2 fillers to the core
Optical shield covering	80 %

Insulation resistance	≥ 5 GΩ*km
Wave impedance	150 Ω ±10 % (3 MHz ... 20 MHz)
Nominal voltage, cable	≤ 125 V
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 65 mm, Bending radius: 15 x D, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s²
Shield attenuation	≤ 4.9 dB (at 16 MHz)
	≤ 4.9 dB (at 4 MHz)
	≤ 0.5 dB (at 38.4 kHz)
	≤ 0.3 dB (at 9.6 kHz)
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
	IEC 60332-1-2
Resistance to oil	in accordance with DIN EN 60811-404
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 70 °C (Cable, flexible installation)
	-20 °C ... 60 °C (for installation)
	-20 °C ... 60 °C (cable, drag chain applications)

Environmental and real-life conditions

Ambient conditions

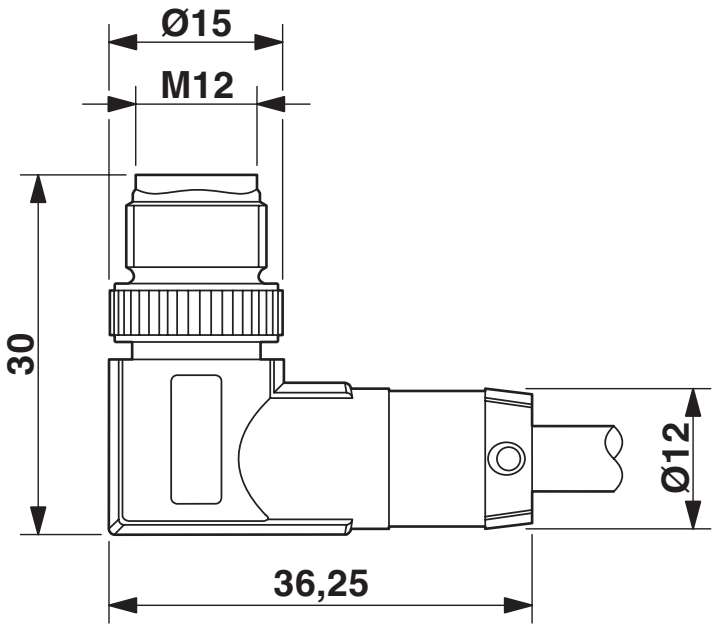
Degree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	-25 °C ... 90 °C (Plug / socket)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

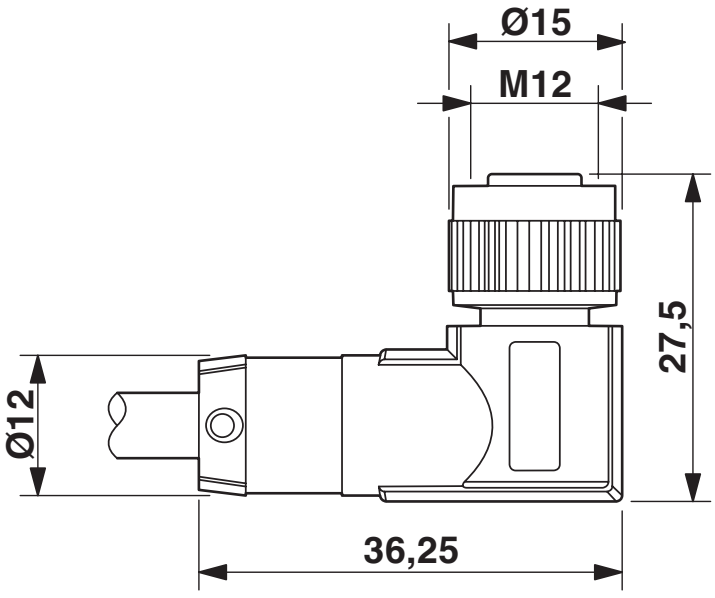
Drawings

Dimensional drawing



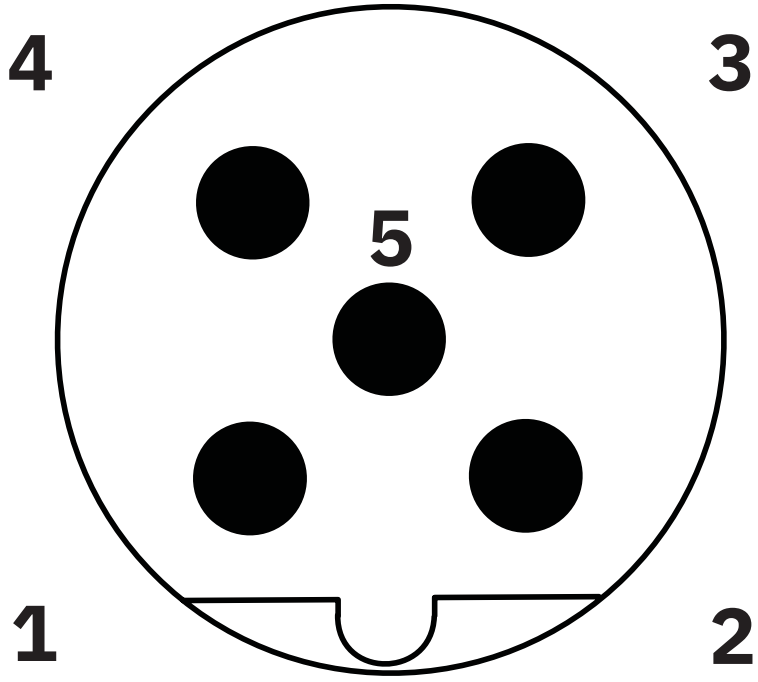
Plug M12 SPEEDCON, angled, shielded

Dimensional drawing



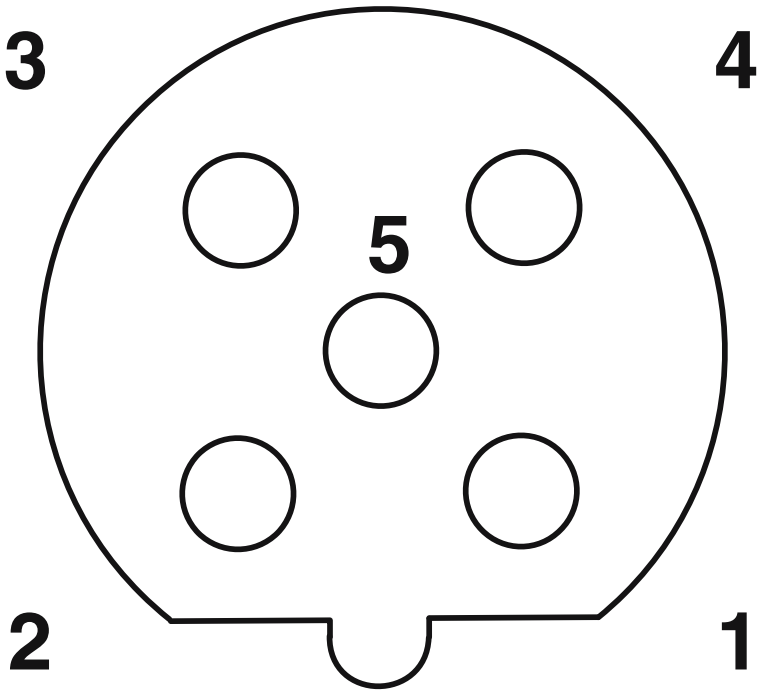
Socket M12-SPEEDCON, angled, shielded

Schematic diagram



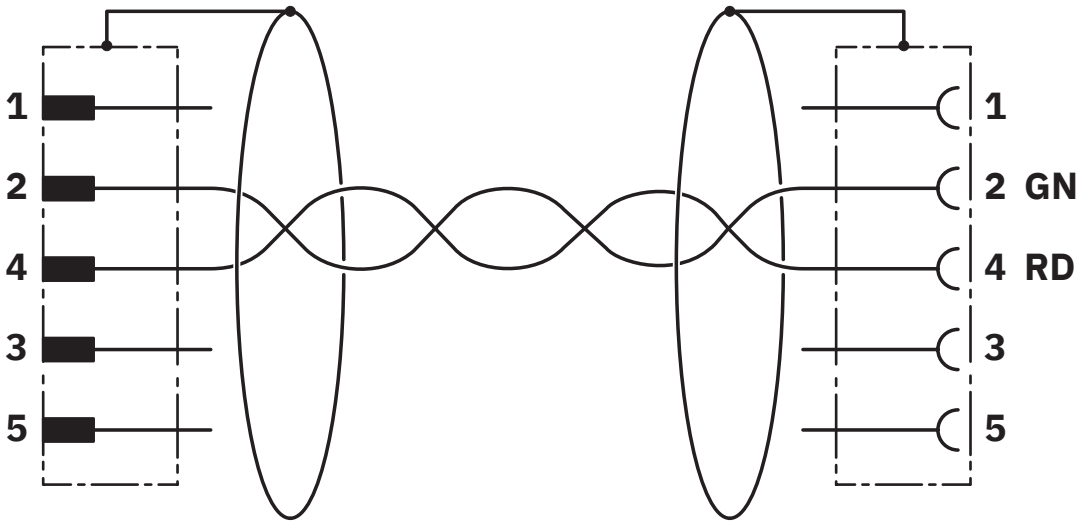
Pin assignment M12 male connector, 5-pos., B-coded, male side

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1433278

UL Listed
Approval ID: FILE E 221474

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	300 V	4 A	-	-

cUL Listed
Approval ID: FILE E 221474

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	300 V	4 A	-	-

EAC-RoHS
Approval ID: RU D-DE.HB35.B.00387

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 10.0	EC002599

UNSPSC

UNSPSC 21.0	26121600

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

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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