

SAC-2P-M12MSB/10,0-910/M12FSB - Bus system cable



1507395

<https://www.phoenixcontact.com/au/products/1507395>

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Bus system cable, PROFIBUS (12 Mbps), 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 10 m

Commercial data

Item number	1507395
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AF1CKC
Product key	AF1CKC
Catalog page	Page 429 (C-2-2019)
GTIN	4017918900212
Weight per piece (including packing)	610 g
Weight per piece (excluding packing)	610 g
Customs tariff number	85444290
Country of origin	PL

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Technical data

Notes

General	Further products with variable cable lengths can be found in the accessories section
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Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	PROFIBUS
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	$\geq 100 \text{ M}\Omega$
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A
Transmission medium	Copper

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
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Material specifications

Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6 (plug), TPU GF (socket)

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Material for screw connection	Zinc die-cast, nickel-plated
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Connection data

Pin 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 straight M12
Number of positions	2
Coding type	B (inverse)

Connection 2

Type	Socket straight M12
Number of positions	2
Coding type	B

Cable/line

Cable length	10 m
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PROFIBUS [910]

Dimensional drawing	
Cable weight	90 kg/km
UL AWM Style	21198 (80°C/300 V)
Number of positions	2
Shielded	yes
Cable type	PROFIBUS [910]
Conductor structure	1x2xAWG24/19
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor cross section	2x 0.25 mm² (Signal line)
Wire diameter incl. insulation	2.55 mm ±0.07 mm
External cable diameter	7.80 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires

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Material, filler	PP
Material wire insulation	Foam-Skin PP
Single wire, color	red, green
Overall twist	2 cores with 2 fillers to the core
Optical shield covering	85 %
Max. conductor resistance	$\leq 78.6 \Omega/\text{km}$
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Wave impedance	$150 \Omega \pm 10 \%$ (3 MHz ... 20 MHz)
Cable capacity	nom. 30 pF/m
Nominal voltage, cable	300 V
Test voltage Core/Core	1500 V (50 Hz, 1 min.)
Test voltage Core/Shield	1500.00 V (50 Hz, 1 min.)
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	65 mm
Dynamic load capacity (bending)	Max. bending cycles: 4000000, Bending radius: 65 mm, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s ² , Ambient temperature: -20 °C ... 60 °C
	Max. bending cycles: 5000000, Bending radius: 80 mm, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s ² , Ambient temperature: -20 °C ... 60 °C
Shield attenuation	$\leq 0.049 \text{ dB/m}$ (at 16 MHz)
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
Other resistance	Low adhesion
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)

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Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

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Schematic diagram



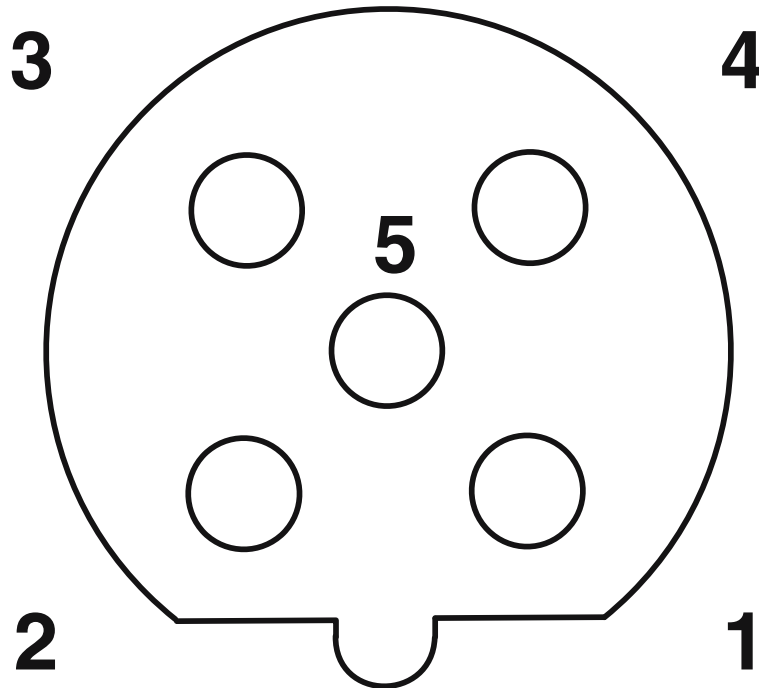
Pin assignment M12 male connector, 5-pos., B-coded, male side

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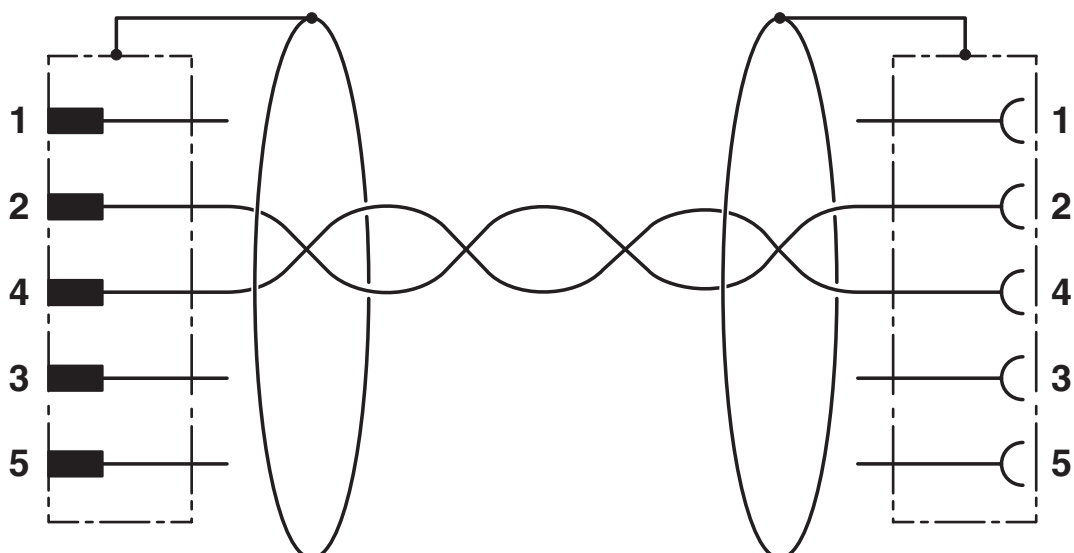
<https://www.phoenixcontact.com/au/products/1507395>

Schematic diagram



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

Circuit diagram



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Approvals

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UL Listed

Approval ID: FILE E 221474

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



cUL Listed

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	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
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EAC-RoHS

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

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Classifications

ECLASS

ECLASS-13.0	27060307
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ETIM

ETIM 9.0	EC001855
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UNSPSC

UNSPSC 21.0	26121600
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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EF3.0 Climate Change

CO2e kg	6.091 kg CO2e
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