

SAC-2P-M12MSB/15,0-910/M12FSB - Bus system cable



1507405

<https://www.phoenixcontact.com/us/products/1507405>

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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: 15 m

Commercial data

Item number	1507405
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	BF1CKC
Catalog page	Page 429 (C-2-2019)
GTIN	4017918900229
Weight per piece (including packing)	921.3 g
Weight per piece (excluding packing)	880 g
Customs tariff number	85444290
Country of origin	PL

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1507405

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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

Data management status

Article revision	11
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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

SAC-2P-M12MSB/15,0-910/M12FSB - Bus system cable



1507405

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Contact surface material	Ni/Au
Contact carrier material	PA 6.6 (plug), TPU GF (socket)
Material for screw connection	Zinc die-cast, nickel-plated

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	15 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 mm ² (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

SAC-2P-M12MSB/15,0-910/M12FSB - Bus system cable



1507405

<https://www.phoenixcontact.com/us/products/1507405>

External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
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	≤ 78.6 Ω/km
Insulation resistance	≥ 5 GΩ*km
Wave impedance	150 Ω ±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
Max. bending cycles	4000000
Bending radius	65 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s ²
Max. bending cycles	5000000
Bending radius	80 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s ²
Shield attenuation	≤ 0.049 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)	-25 °C ... 90 °C (Plug / socket)

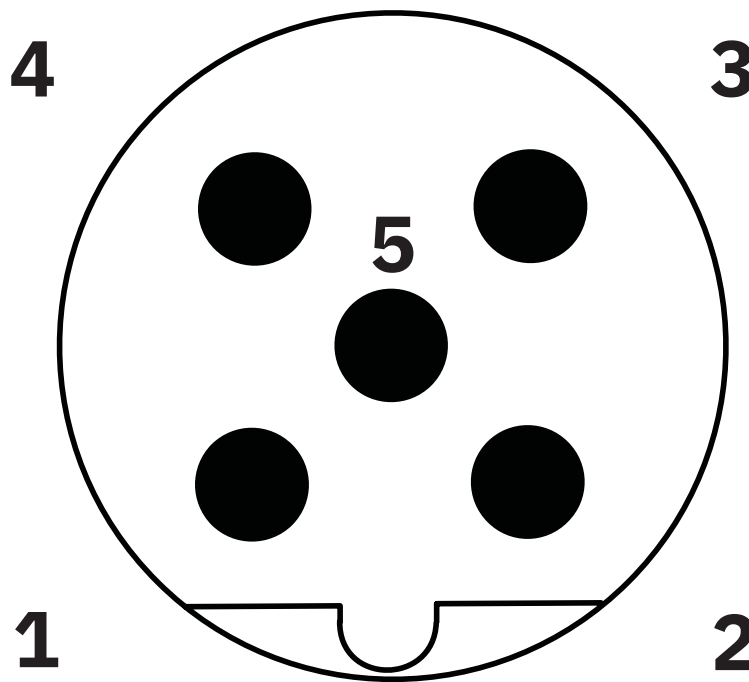
SAC-2P-M12MSB/15,0-910/M12FSB - Bus system cable

1507405

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Drawings

Schematic diagram



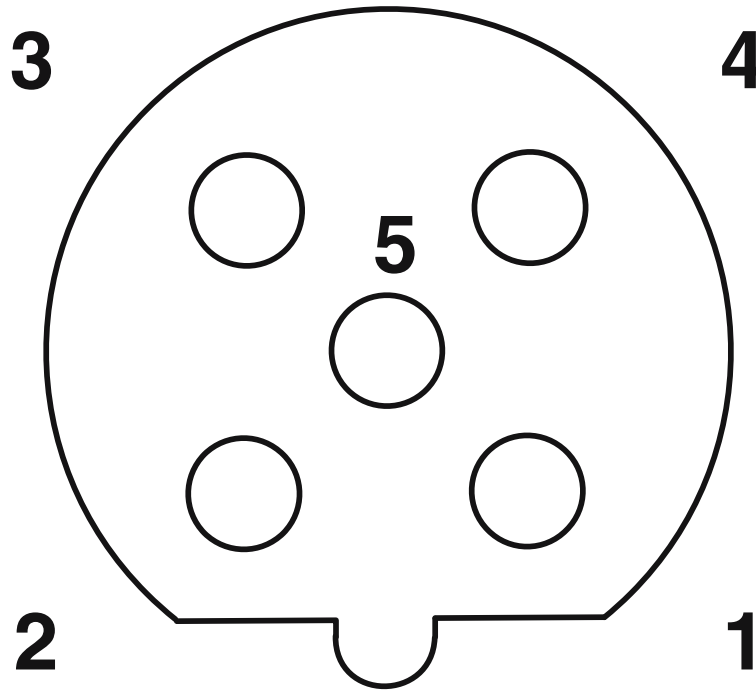
Pin assignment M12 male connector, 5-pos., B-coded, male side

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1507405

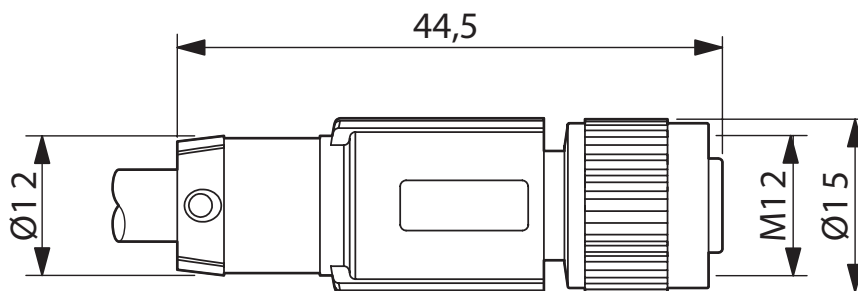
<https://www.phoenixcontact.com/us/products/1507405>

Schematic diagram



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

Dimensional drawing



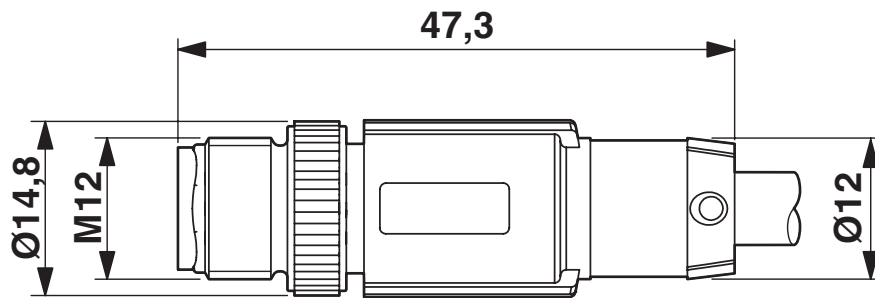
M12 x 1 socket, straight, shielded

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1507405

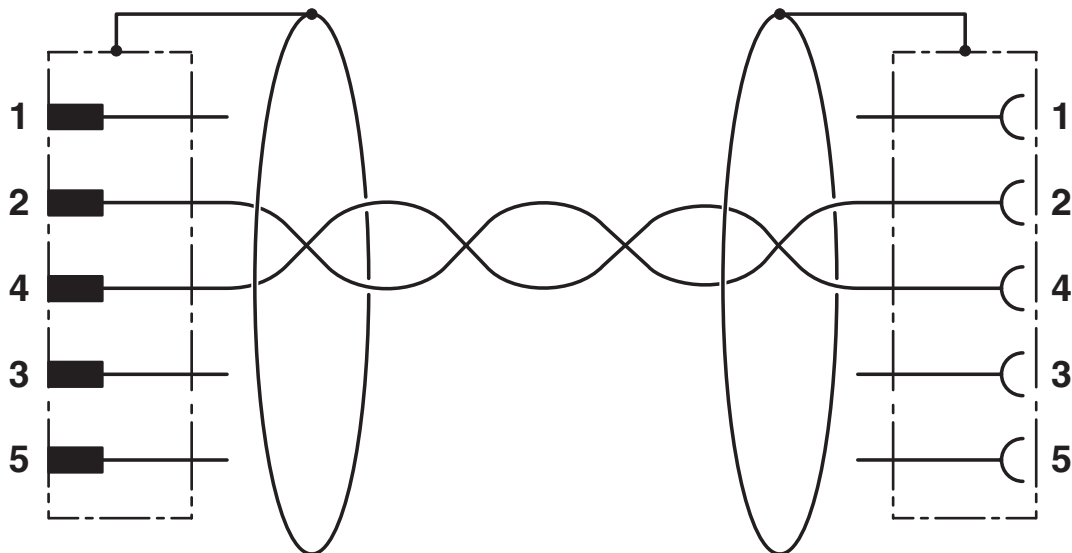
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Dimensional drawing



Plug, M12 x 1, straight, shielded

Circuit diagram



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1507405


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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507405>

 UL Listed Approval ID: FILE E 221474				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group 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
Use group keine				
	300 V	4 A	-	-

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

ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

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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