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Bus system cable - SAC-2P-M12MSB/25,0-910/M12FSB

1530252

https://www.phoenixcontact.com/gb/products/1530252

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Bus system cable, PROFIBUS, 2-position, PUR halogen-free, red lilac RAL 4001, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 25 m

Commercial Data

Item number	1530252
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF1CKC
Product Key	BF1CKC
GTIN	4017918990046
Weight per Piece (including packing)	1,481 g
Weight per Piece (excluding packing)	1,267.3 g
Customs tariff number	85444290
Country of origin	PL

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Technical Data

Product properties

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

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	PROFIBUS
Signal type/category	PROFIBUS

LED signaling

Status display	No
Status display present	No

Electrical properties

Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC
	60 V DC
Nominal current I_N	4 A

Material specifications

Flammability rating according to UL 94	V0
Sealing 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
Cable gland material	Zinc die-cast, nickel-plated

Connector

Insertion/withdrawal cycles	≥ 100

Header 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	B

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Head 2

Head design	Socket
Head cable outlet	straight
Head thread type	M12
Coding	B

Cable / line

Cable length	25 m
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 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	7.8 mm ±0.2 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
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 V (50 Hz, 1 min.)
Smallest bending radius, fixed installation	40 mm
Smallest bending radius, movable installation	65 mm
Max. bending cycles	4000000
	5000000
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

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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)

Cable structure

Cable type	PROFIBUS
Signal type/category	PROFIBUS
External cable diameter	7.80 mm
Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Material wire insulation	Foamed PE
Wire diameter incl. insulation	2.55 mm ±0.07 mm
Single wire, color	Red, green
Type of pair shielding	Aluminum-lined polyester foil
Overall twist	2 cores with 2 fillers to the core
Shielding	Tinned copper braided shield
Optical shield covering	80 %

Electrical properties

Nominal voltage, cable	30 V
Test voltage Core/Core	1500 V
Conductor resistance	≤ 78.4 Ω/km
Cable insulation resistance	≥ 5 GΩ*km
Working capacitance	32 pF (core-core)

Mechanical properties

Smallest bending radius, fixed installation	min. 78 mm
Smallest bending radius, movable installation	min. 78 mm
Number of bending cycles	5000000
Bending radius	78 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	7 m/s²

Bending cycles

Smallest bending radius, fixed installation	min. 78 mm
Smallest bending radius, movable installation	min. 78 mm
Number of bending cycles	5000000
Bending radius	78 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	7 m/s²

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Ambient conditions

Degree of protection	IP65
	IP67
	IP68
Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 80 °C (Cable, flexible installation)

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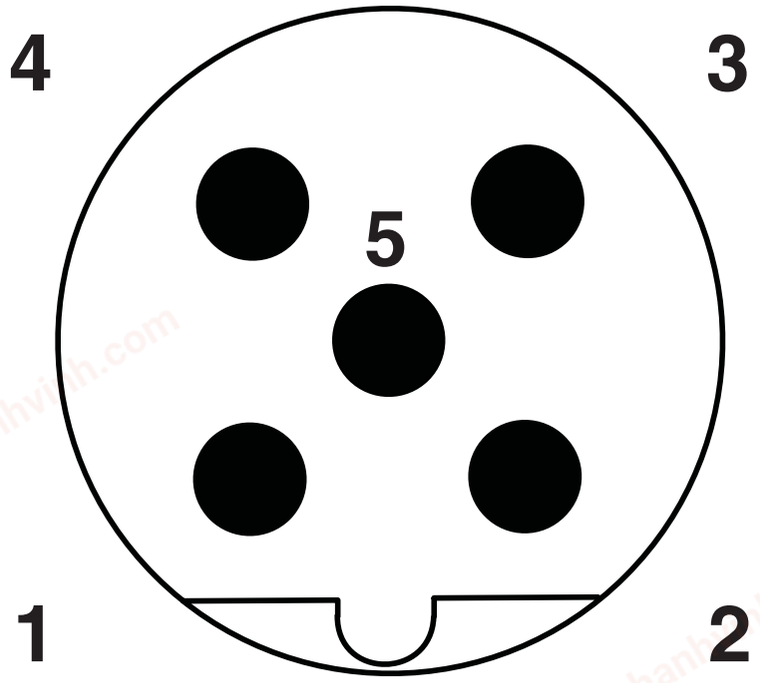
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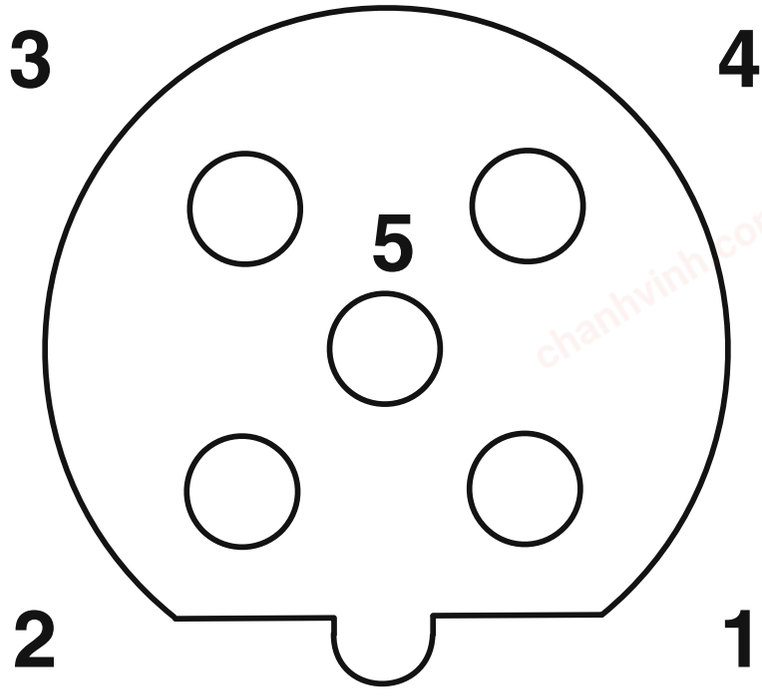
Drawings

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

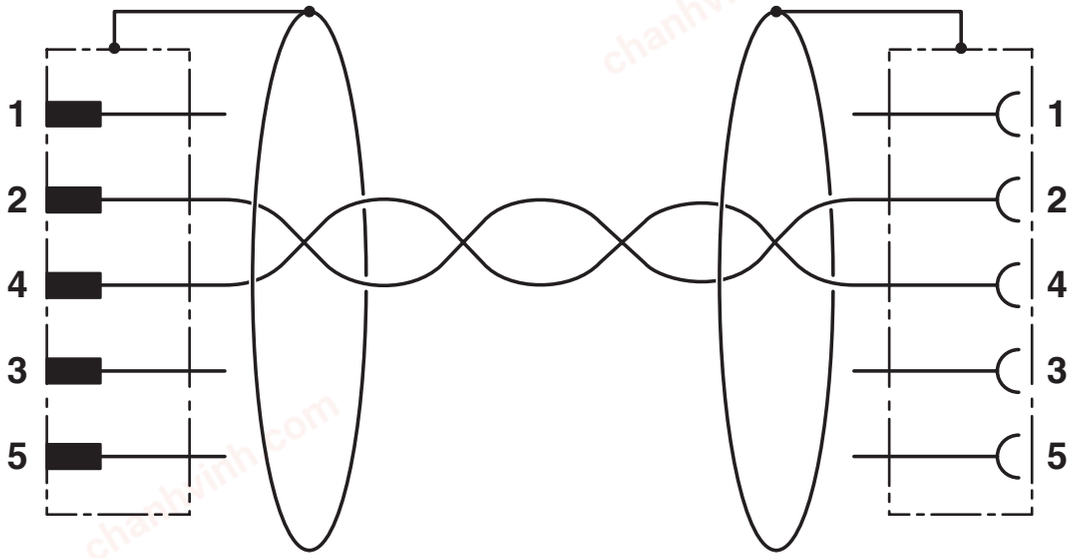
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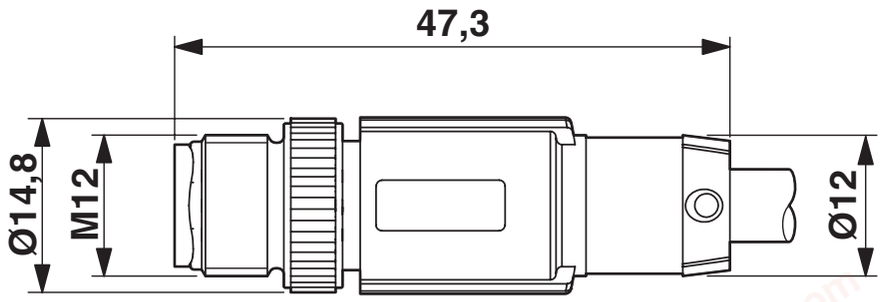
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Circuit diagram



Contact assignment of the M12 connector and the M12 socket

Dimensional drawing



Plug, M12 x 1, straight, shielded

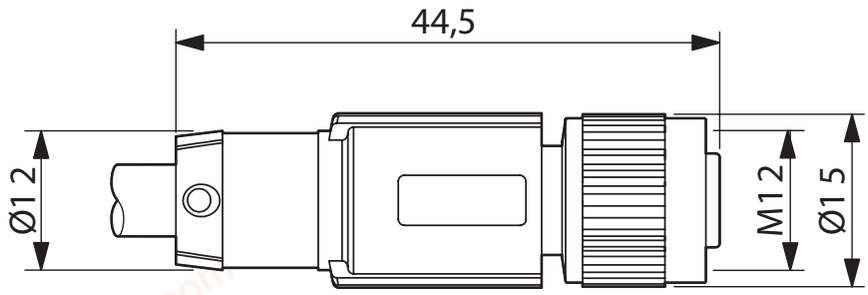
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Dimensional drawing



M12 x 1 socket, straight, shielded

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Approvals

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Classifications

ECLASS

ECLASS-9.0	27060311
ECLASS-10.0.1	27060311
ECLASS-11.0	27060307

ETIM

ETIM 8.0	EC001855

UNSPSC

UNSPSC 21.0	26121600

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Environmental Product Compliance

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

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