

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



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: 13 m

Commercial data

Item number	1544633
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF04
Product key	AF1CKC
GTIN	4046356116107
Weight per piece (including packing)	797 g
Weight per piece (excluding packing)	794.8 g
Customs tariff number	85444290
Country of origin	PL

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

Technical data

Product properties

Product type	Data cable preassembled
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

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

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	------------

Material specifications

Flammability rating according to UL 94	V0
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
Material for screw connection	Zinc die-cast, nickel-plated

Connector

Connection 1

Type	Plug straight M12
------	-------------------

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

Number of positions	2
Coding type	B (inverse)

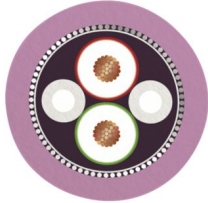
Connection 2

Type	Socket straight M12
Number of positions	2
Coding type	B

Cable/line

Cable length	13 m
--------------	------

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
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.)

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

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

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable

1544633

<https://www.phoenixcontact.com/us/products/1544633>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable

1544633

<https://www.phoenixcontact.com/us/products/1544633>

Schematic diagram



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

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable

1544633

<https://www.phoenixcontact.com/us/products/1544633>

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 connector and the M12 socket

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1544633>



EAC-RoHS

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

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

SAC-2P-M12MSB/13,0-910/M12FSB - Bus system cable



1544633

<https://www.phoenixcontact.com/us/products/1544633>

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%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com