

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

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, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, Plug straight M12, coding: B, on Socket straight M12, coding: B, cable length: 0.5 m

Commercial data

Item number	1507175
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	AF1CKB
GTIN	4017918900021
Weight per piece (including packing)	71.6 g
Weight per piece (excluding packing)	70.7 g
Customs tariff number	85444290
Country of origin	PL

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	INTERBUS
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	B

Insulation characteristics

Overvoltage category	II
Degree of pollution	3

Interfaces

Bus system	INTERBUS
Signal type/category	INTERBUS, 16 Mbps

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
Transmission speed	16 Mbps

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

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

Connection data

Connection assignment

Contact Color (signal designation) Contact (optional)	1 (Plug) YE (DQ) 1 (Socket)
	2 (Plug) GN (DO) 2 (Socket)
	3 (Plug) GY (DI) 3 (Socket)
	4 (Plug) PK (DI) 4 (Socket)
	5 (Plug) BN (GND) 5 (Socket)

Connector

Connection 1

Type	Plug straight M12
Number of positions	5
Coding type	B (inverse)

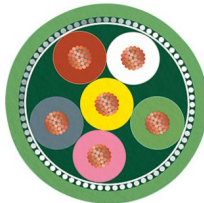
Connection 2

Type	Socket straight M12
Number of positions	5
Coding type	B

Cable/line

Cable length	0.5 m
--------------	-------

INTERBUS [900]

Dimensional drawing	
Cable weight	70 kg/km
Number of positions	6
Shielded	yes
Cable type	INTERBUS [900]
Conductor structure	3 x 2 x 0.22 mm ²
Signal speed	0.66 c
Conductor structure signal line	32x 0.10 mm
AWG signal line	24
Conductor cross-section	3x 2x 0.22 mm ²
External cable diameter	8.00 mm
Outer sheath, material	PUR
External sheath, color	may green RAL 6017

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

Conductor material	Bare Cu litz wires
Material wire insulation	PE
Single wire, color	green-yellow, white-brown, gray-pink
Twisted pairs	2 cores to the pair
Overall twist	3 pairs to the core
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$
Coupling resistance	$< 250.00 \text{ m}\Omega/\text{m}$ (at 30 MHz)
Loop resistance	$\leq 159.80 \text{ }\Omega/\text{km}$
Wave impedance	$120 \text{ }\Omega \pm 20 \%$ (at 64 kHz) $100 \text{ }\Omega \pm 15 \%$ (with 1 MHz)
Cable capacity	$\leq 60 \text{ nF/km}$ (At 800 Hz)
Nominal voltage, cable	250 V (Peak value, not for high-power applications)
Test voltage Core/Core	$1500 \text{ V}_{\text{rms}}$
Test voltage Core/Shield	$1000.00 \text{ V}_{\text{rms}}$
Minimum bending radius, fixed installation	$7.5 \times D$
Minimum bending radius, flexible installation	$15 \times D$
Smallest bending radius, fixed installation	60 mm
Smallest bending radius, movable installation	120 mm
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 120 mm, Traversing path: 10 m, Traversing rate: 1.6 m/s, Acceleration: 3.2 m/s^2
Near end crosstalk attenuation (NEXT)	$\geq 61 \text{ dB}$ (at 772 kHz) $\geq 59 \text{ dB}$ (with 1 MHz) $\geq 55 \text{ dB}$ (at 2 MHz) $\geq 50 \text{ dB}$ (at 4 MHz) $\geq 46 \text{ dB}$ (at 8 MHz) $\geq 44 \text{ dB}$ (at 10 MHz) $\geq 41 \text{ dB}$ (at 16 MHz) $\geq 40 \text{ dB}$ (at 20 MHz)
Shield attenuation	$\leq 15 \text{ dB/km}$ (at 256 kHz) $\leq 24 \text{ dB/km}$ (at 772 kHz) $\leq 27 \text{ dB/km}$ (with 1 MHz) $\leq 52 \text{ dB/km}$ (at 4 MHz) $\leq 84 \text{ dB/km}$ (at 10 MHz) $\leq 112 \text{ dB/km}$ (at 16 MHz) $\leq 119 \text{ dB/km}$ (at 20 MHz)
Flame resistance	according to VDE 0472, Part 4, test type B according to IEC 60332-1
Ambient temperature (operation)	$-40 \text{ }^\circ\text{C} \dots 80 \text{ }^\circ\text{C}$ (cable, fixed installation) $-30 \text{ }^\circ\text{C} \dots 70 \text{ }^\circ\text{C}$ (Cable, flexible installation)

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable

1507175

<https://www.phoenixcontact.com/us/products/1507175>

Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable

1507175

<https://www.phoenixcontact.com/us/products/1507175>

Schematic diagram



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

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable

1507175

<https://www.phoenixcontact.com/us/products/1507175>

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-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507175>



EAC-RoHS

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

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

ETIM

ETIM 10.0	EC001855
-----------	----------

UNSPSC

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

SAC-5P-M12MSB/ 0,5-900/M12FSB - Bus system cable



1507175

<https://www.phoenixcontact.com/us/products/1507175>

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

EF3.1 Climate Change

CO2e kg	0.595 kg CO2e
---------	---------------

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