

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

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 free cable end, cable length: 5 m

Commercial data

Item number	1507078
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF04
Product key	AF1CKB
GTIN	4017918899943
Weight per piece (including packing)	369.8 g
Weight per piece (excluding packing)	369.8 g
Customs tariff number	85444290
Country of origin	PL

1507078

<https://www.phoenixcontact.com/us/products/1507078>

Technical data

Product properties

Product type	Data cable preassembled
Application	Standard
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	≥ 100 MΩ
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
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

Connection data

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

Connection assignment

Contact Color (signal designation) Contact (optional)	1 (Plug) YE (<u>DO</u>)
	2 (Plug) GN (<u>DO</u>)
	3 (Plug) GY (DI)
	4 (Plug) PK (<u>DI</u>)
	5 (Plug) BN (GND)

Connector

Connection 1

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

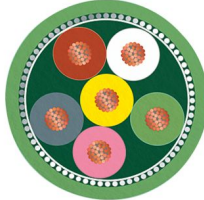
Connection 2

Type	free cable end
------	----------------

Cable/line

Cable length	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
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

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

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	$\leq 60 \text{ nF}/\text{km}$ (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)
Shield attenuation	$\leq 15 \text{ dB}/\text{km}$ (at 256 kHz)
	$\leq 24 \text{ dB}/\text{km}$ (at 772 kHz)
	$\leq 27 \text{ dB}/\text{km}$ (with 1 MHz)
	$\leq 52 \text{ dB}/\text{km}$ (at 4 MHz)
	$\leq 84 \text{ dB}/\text{km}$ (at 10 MHz)
	$\leq 112 \text{ dB}/\text{km}$ (at 16 MHz)
	$\leq 119 \text{ dB}/\text{km}$ (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)

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation) (male connector/female connector)	$-25 \text{ }^\circ\text{C} \dots 90 \text{ }^\circ\text{C}$ (Plug / socket)

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

Drawings

Dimensional drawing



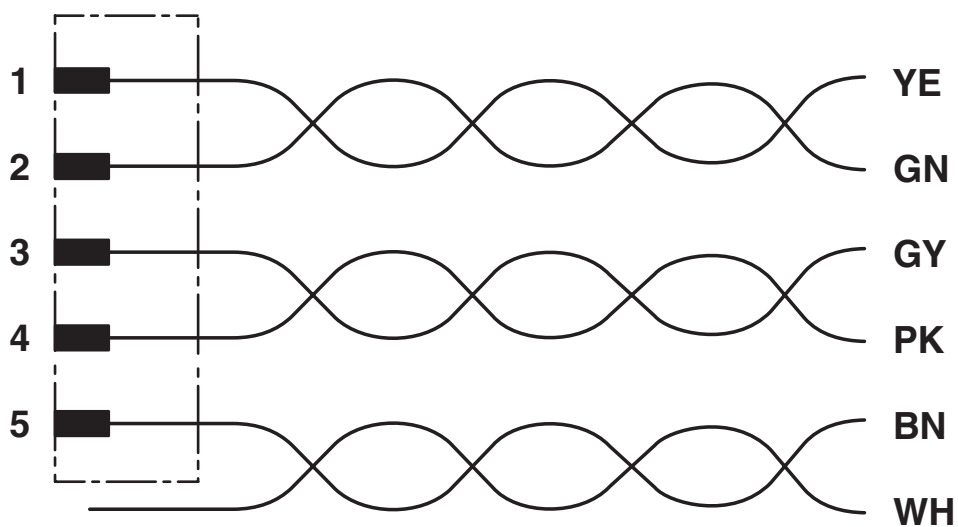
Plug, M12 x 1, straight, shielded

Schematic diagram



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

Circuit diagram



Contact assignment of the M12 plug

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1507078>



EAC-RoHS

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

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

UNSPSC

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

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



1507078

<https://www.phoenixcontact.com/us/products/1507078>

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	2.048 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