

Bus system cable - SAC-5P-M12MSB/ 5,0-900/M12FSB - 1507201

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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: 5 m



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 900052
GTIN	4017918900052
Weight per Piece (excluding packing)	377.600 g
Custom tariff number	85444290
Country of origin	Poland

Technical data

Dimensions

Length of cable	5 m
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Ambient conditions

Ambient temperature (operation)	-25 °C ... 90 °C (Plug / socket)
	-25 °C ... 90 °C (Plug / socket)
Degree of protection	IP65
	IP67

General

Note	Further products with variable cable type and variable cable length can be found in the accessories section
Rated current at 40°C	4 A

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Technical data

General

Rated voltage	48 V AC
	60 V DC
Number of positions	5
Insulation resistance	≥ 100 MΩ
Coding	B - inverse
Signal type/category	INTERBUS, 16 Mbps
Status display	No
Overvoltage category	II
Degree of pollution	3
Insertion/withdrawal cycles	≥ 100
Torque	0.4 Nm (M12 connector)

Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR

Pin assignment

Contact Color (signal designation) Contact (optional)	1 (Plug) YE (DO) 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)

Standards and Regulations

Flammability rating according to UL 94	V0
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Cable

Cable type	INTERBUS
Cable type (abbreviation)	900
Cable structure	3 x 2 x 0.22 mm ²
Conductor cross section	3x 2x 0.22 mm ²
AWG signal line	24
Conductor structure signal line	32x 0.10 mm
Wire colors	Green-yellow, white-brown, gray-pink

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Technical data

Cable

Twisted pairs	2 cores to the pair
Overall twist	3 pairs to the core
Shielding	Braided copper wires
External sheath, color	may green RAL 6017
External cable diameter D	8 mm
Minimum bending radius, fixed installation	7.5 x D
Minimum bending radius, flexible installation	15 x D
Number of bending cycles	5000000
Bending radius	120 mm
Traversing path	10 m
Traversing rate	1.6 m/s
Acceleration	3.2 m/s ²
Cable weight	70 kg/km
Outer sheath, material	PUR
Material conductor insulation	PE
Conductor material	Bare Cu litz wires
Insulation resistance	≥ 5 GΩ*km
Loop resistance	≤ 159.80 Ω/km
Cable capacity	≤ 60 nF/km (At 800 Hz)
Wave impedance	120 Ω ±20 % (at 64 kHz)
	100 Ω ±15 % (with 1 MHz)
Near end crosstalk attenuation (NEXT)	≥ 61 dB (at 772 kHz)
	≥ 59 dB (with 1 MHz)
	≥ 55 dB (at 2 MHz)
	≥ 50 dB (at 4 MHz)
	≥ 46 dB (at 8 MHz)
	≥ 44 dB (at 10 MHz)
	≥ 41 dB (at 16 MHz)
	≥ 40 dB (at 20 MHz)
Attenuation	≤ 15 dB/km (at 256 kHz)
	≤ 24 dB/km (at 772 kHz)
	≤ 27 dB/km (with 1 MHz)
	≤ 52 dB/km (at 4 MHz)
	≤ 84 dB/km (at 10 MHz)
	≤ 112 dB/km (at 16 MHz)
	≤ 119 dB/km (at 20 MHz)
Signal speed	0.66 c

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Technical data

Cable

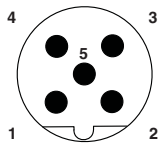
Coupling resistance	< 250.00 mΩ/m (at 30 MHz)
Nominal voltage, cable	250 V (Peak value, not for high-power applications)
Test voltage Core/Core	1500 V _{rms}
Test voltage Core/Shield	1000 V _{rms}
Flame resistance	according to VDE 0472, Part 4, test type B
	according to IEC 60332-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-30 °C ... 70 °C (cable, flexible installation)

Environmental Product Compliance

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

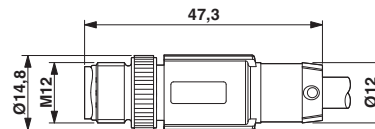
Drawings

Schematic diagram



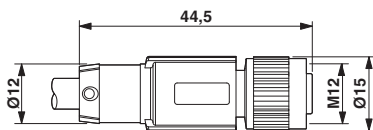
Pin assignment M12 male connector, 5-pos., B-coded, male side

Dimensional drawing



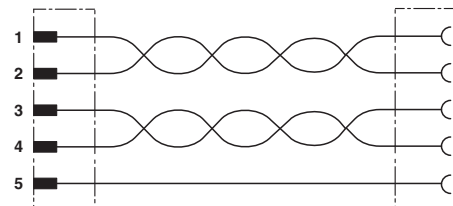
Plug, M12 x 1, straight, shielded

Dimensional drawing



M12 x 1 socket, straight, shielded

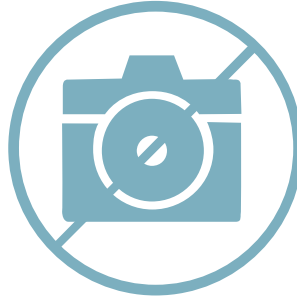
Circuit diagram



Contact assignment of the M12 connector and the M12 socket

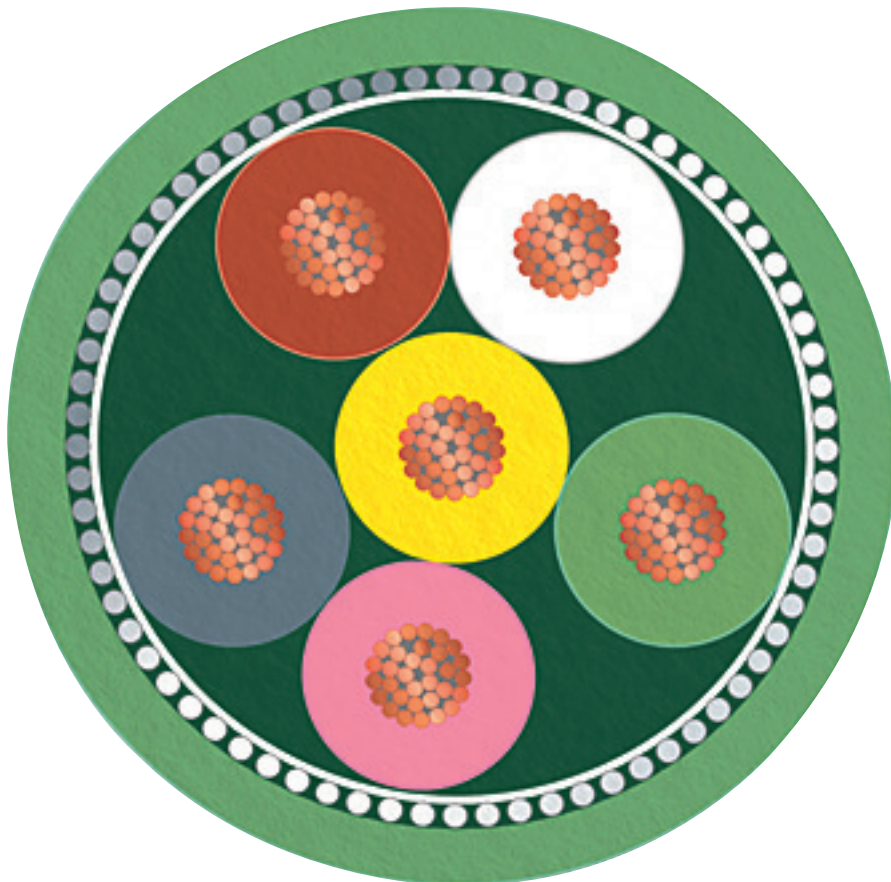
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Schematic diagram



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

Cable cross section



INTERBUS [900]

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Classifications

eCl@ss

eCl@ss 10.0.1	27060308
eCl@ss 11.0	27060307
eCl@ss 4.0	27060300
eCl@ss 4.1	27060300
eCl@ss 5.0	27061800
eCl@ss 5.1	27061800
eCl@ss 6.0	27279200
eCl@ss 7.0	27279218
eCl@ss 9.0	27060308

ETIM

ETIM 2.0	EC000830
ETIM 3.0	EC001855
ETIM 4.0	EC001855
ETIM 6.0	EC001262
ETIM 7.0	EC001262

UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501
UNSPSC 18.0	26121604
UNSPSC 19.0	26121604
UNSPSC 20.0	26121604
UNSPSC 21.0	26121604

Approvals

Approvals

Approvals

EAC / EAC-RoHS / EAC

Ex Approvals

Bus system cable - SAC-5P-M12MSB/ 5,0-900/M12FSB - 1507201

Approvals

Approval details

EAC		RU C- DE.BL08.B.00286
EAC-RoHS		RU D- DE.HB35.B.00387
EAC		EAC-Zulassung

Accessories

Accessories

Data cable preassembled

Bus system cable - SAC-5P-M12MSB/900/... - 1537983



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: Free input (0.2 ... 40.0 m)

Bus system cable - SAC-5P-M12FSB/900/... - 1538005



Bus system cable, INTERBUS (16 Mbps), 5-position, PUR halogen-free, may green RAL 6017, shielded, free cable end, on Socket straight M12, coding: B, cable length: Free input (0.2 ... 40.0 m)

Bus system cable - SAC-5P-M12MSB-M12FSB/900/... - 1538021



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: Free input (0.2 ... 40.0 m)

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Accessories

Plug for cable screw gland

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



Protective cap

Sealing cap - PROT-M12 FS-PA-CHAIN - 1430873

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



Safety locking

Locking clip - SAC-M12-EXCLIP-M - 1558988



Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Locking clip - SAC-M12-EXCLIP-F - 1558991



Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools

Screwdriver tools

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Accessories

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

Tool - SAC BIT M12-D15 - 1208432



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm