



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

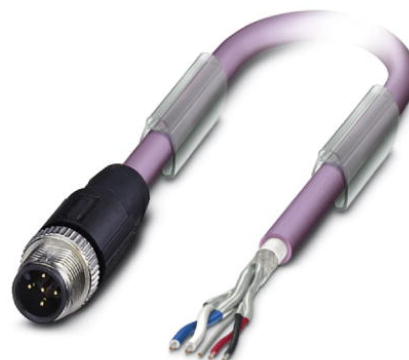
Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



**SAC-5P-M12MS/ 2,0-920**

Order No.: 1507421

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=1507421>

Bus system cable, 5-position, PUR, halogen-free, Violet, RAL 4001, shielded, Plug, straight M12, A-coded, on Free conductor end, Cable length: 2 m

**CANopen****Commercial data**

GTIN (EAN)	4017918900236
sales group	D117
Pack	1 pcs.
Customs tariff	85444290
Weight/Piece	0.1426 KG
Catalog page information	Page 279 (PC-2009)

**Product notes**

WEEE/RoHS-compliant since:  
10/31/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

**Technical data****General data**

Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	5
Volume resistance	≤ 5 mΩ

Insulation resistance	≥ 100 MΩ
Length of cable	2 m
Stripping length of the free conductor end	50 mm
Ambient temperature (operation)	-25 °C ... 90 °C (Male connector / female connector)

#### General characteristics

Coding	A - standard
Surge voltage category	II
Pollution degree	3
Degree of protection	IP65/IP67/IP69K
Insertion/withdrawal cycles	≥ 100
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material of grip body	TPU, hardly inflammable, self-extinguishing
Material, knurls	Zinc die-cast, (nickel-plated)
Status display	No

#### Conductor data

Cable type	CAN Bus/DeviceNet
Cable type (abbreviation)	920
Conductor cross section	0.2 mm <sup>2</sup> (signal line)
	0.32 mm <sup>2</sup> (Power supply)
	0.32 mm <sup>2</sup> (Drain wire)
AWG signal line	24
Conductor structure signal line	19x 0.12 mm
AWG power supply	22
Conductor structure, voltage supply	19x 0.15 mm
Core diameter including insulation	2.05 mm ±0.1 mm (signal line)
	1.4 mm ±0.05 mm (Power supply)
External cable diameter	6.70 mm
Wire colors	Red-black, blue-white
External sheath, color	Violet, RAL 4001
Insulation resistance	≥ 5 GΩ*km (signal line)
	≥ 100 MΩ*km (Power supply)

Conductor resistance	$\leq 78.4 \Omega/\text{km}$ (signal line)
	$\geq 51.6 \Omega/\text{km}$ (Power supply)
Working capacitance	39.3 pF (Signal line, Core-Core)
	78.7 pF (Signal line, Core-Shield)
Nominal voltage, conductor	30 V (signal line)
	300 V (Power supply)
Test voltage, conductor	1500 V (signal line)
	2000 V (Power supply)
Twisted pairs	2 cores to the pair
Type of pair shielding	Aluminum-lined polyester foil
Overall twist	2 pairs around a drain wire in the center to the core
Shielding	Tinned copper braided shield
Optical shield covering	70 %
Outer sheath, material	PUR
Material conductor insulation	PE (Power supply)
	Foamed PE (signal line)
Conductor material	Tin-plated Cu litz wires
Smallest bending radius, fixed installation	67 mm
Smallest bending radius, movable installation	67 mm
Number of bending cycles	5000000
Bending radius	67 mm
Traversing path	10 m
Traversing rate	3 m/s
Acceleration	7 m/s <sup>2</sup>
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 75 °C (cable, flexible installation)
Halogen-free	complying with IEC 60754-1/2

#### Certificates / Approvals



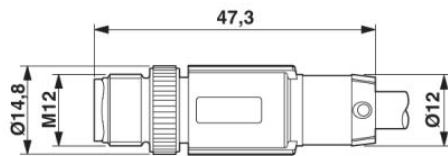
Certification

GOST



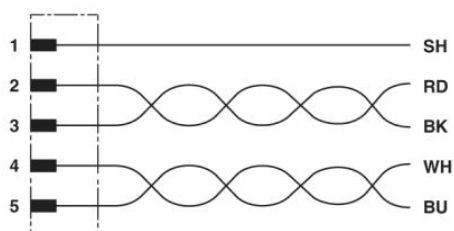
## Diagrams/Drawings

### Dimensioned drawing



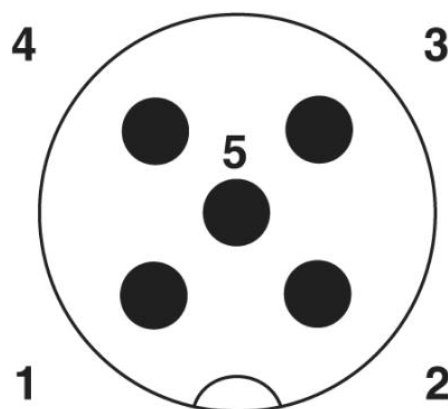
M12 x 1 male connector, straight, shielded

### Circuit diagram



Contact assignment of the M12 plug

### Schematic diagram



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

**Address**

PHOENIX CONTACT Deutschland GmbH  
Flachsmarktstr. 8  
32825 Blomberg, Germany  
Phone +49 5235 3 12000  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.de>



© 2010 Phoenix Contact  
Technical modifications reserved;