

# SAC-5P-M 8MS/ 1,0-920/M 8FS - Bus system cable



1575848

<https://www.phoenixcontact.com/us/products/1575848>

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Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), Plug straight M8, coding: A, on Socket straight M8, coding: A, cable length: 1 m, Connector unshielded

## Commercial data

Item number	1575848
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF02
Product key	BF1BDD
Catalog page	Page 432 (C-2-2019)
GTIN	4046356431521
Weight per piece (including packing)	80.2 g
Weight per piece (excluding packing)	75.2 g
Customs tariff number	85444290
Country of origin	PL

# SAC-5P-M 8MS/ 1,0-920/M 8FS - Bus system cable



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## Technical data

### Notes

General	Further products with variable cable lengths can be found in the accessories section
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### Product properties

Product type	Data cable preassembled
Application	Standard
Sensor type	CANopen®
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A

### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

### Interfaces

Bus system	CANopen®/DeviceNet™
Signal type/category	CANopen®
	DeviceNet™

### Signaling

Status display	No
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### Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	30 V AC
	30 V DC
Nominal current I <sub>N</sub>	4 A
Transmission medium	Copper

### Material specifications

Flammability rating according to UL 94	HB
Seal material	NBR
Material of grip body	TPU, hardly inflammable, self-extinguishing
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	TPU GF
Material for screw connection	Zinc die-cast, nickel-plated

### Connection data

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## Pin assignment

Contact   Color (signal designation)   Contact (optional)	1 (Plug)   SR (shield)   1 (Socket)
	2 (Plug)   RD (V+)   2 (Socket)
	4 (Plug)   BK (V-)   4 (Socket)
	3 (Plug)   WH (CAN_H)   3 (Socket)
	5 (Plug)   BU (CAN_L)   5 (Socket)

## Connector

### Connection 1

Type	Plug straight M8
Number of positions	5
Coding type	A (Standard)


### Connection 2

Type	Socket straight M8
Number of positions	5
Coding type	A (Standard)

## Cable/line

Cable length	1 m
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### CANopen<sup>®</sup>/DeviceNet<sup>™</sup>, PUR, violet [920]

Dimensional drawing	
Cable weight	90 kg/km
UL AWM Style	21198 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	CANopen <sup>®</sup> /DeviceNet <sup>™</sup> , PUR, violet [920]
Conductor structure	2xAWG24/19+2xAWG22/19
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
Conductor cross section	2x 0.25 mm <sup>2</sup> (Data cable)
	2x 0.34 mm <sup>2</sup> (Power supply)
	1x 0.34 mm <sup>2</sup> (Drain wire)
Wire diameter incl. insulation	1.95 mm ±0.05 mm (Data cable)
	1.4 mm ±0.05 mm (Power supply)
External cable diameter	6.70 mm ±0.3 mm

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Outer sheath, material	PUR
External sheath, color	red lilac RAL 4001
Conductor material	Tin-plated Cu litz wires
Material wire insulation	Foamed PE (Data cable)
	PE (Power supply)
Single wire, color	red-black, blue-white
Twisted pairs	2 cores to the pair
Type of pair shielding	Plastic-coated aluminum foil, aluminum side outside
Overall twist	2 pairs around a drain wire in the center to the core
Optical shield covering	80 %
Insulation resistance	$\geq 5 \text{ G}\Omega \cdot \text{km}$ (Data cable)
	$\geq 5 \text{ G}\Omega \cdot \text{km}$ (Power supply)
Loop resistance	$\leq 181.80 \text{ }\Omega/\text{km}$ (Data cable)
	$\leq 114.80 \text{ }\Omega/\text{km}$ (Power supply)
Wave impedance	$120 \text{ }\Omega \pm 10 \text{ %}$ (with 1 MHz)
Cable capacity	nom. 40 nF/km (Data cable)
Nominal voltage, cable	$\leq 300 \text{ V}$ (Peak value, not for high-power applications)
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	34 mm
Smallest bending radius, movable installation	67 mm
Max. bending cycles	5000000
Shield attenuation	$\leq 22.9 \text{ dB/km}$ (with 1 MHz)
	$\leq 16.4 \text{ dB/km}$ (At 500 kHz)
	$\leq 9.5 \text{ dB/km}$ (At 125 kHz)
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	IEC 60332-1-2
	in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
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)

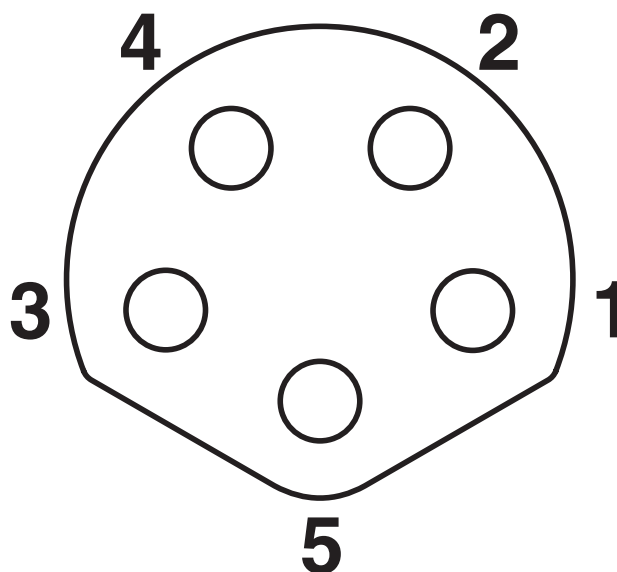
## Environmental and real-life conditions

### Ambient conditions

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

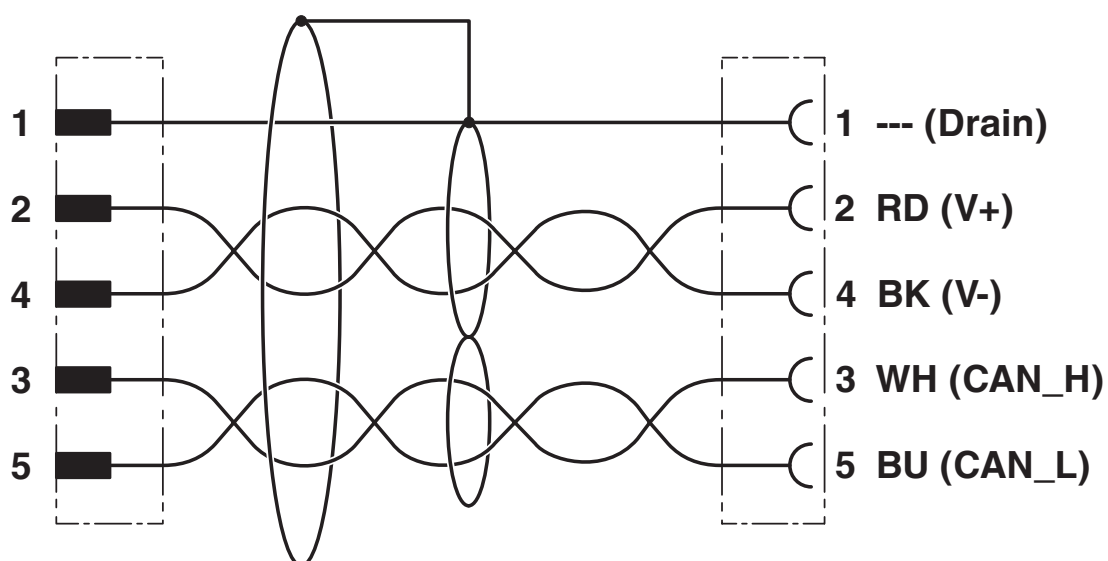
## Drawings

Schematic diagram

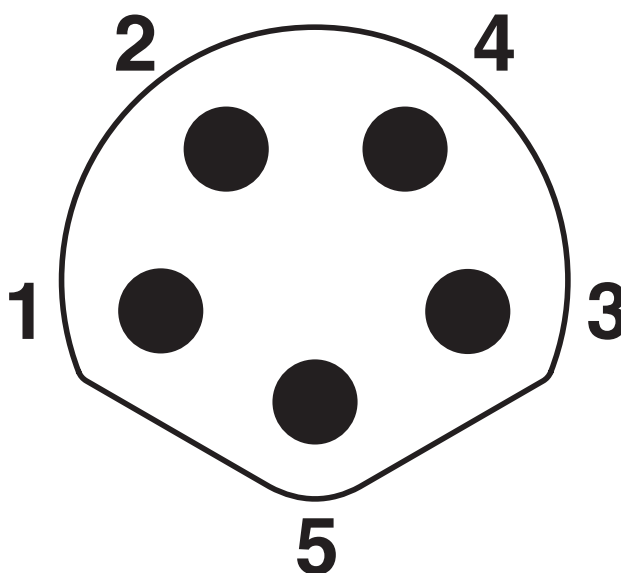


Pin assignment, socket side, M8, 5-pos., B-coded

Circuit diagram

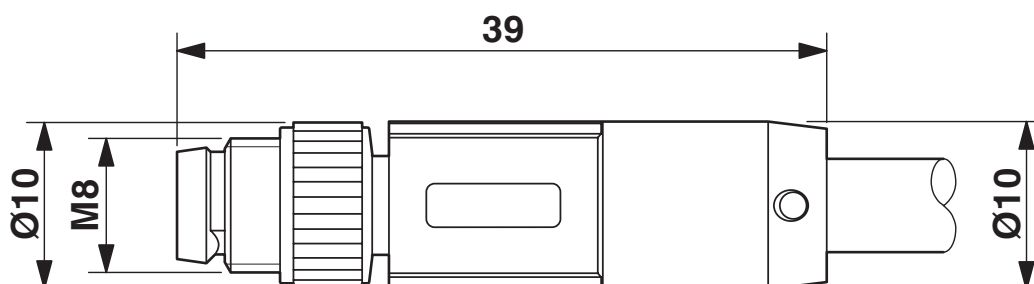


Schematic diagram



Pin assignment, pin side, M8, 5-pos., B-coded

Dimensional drawing



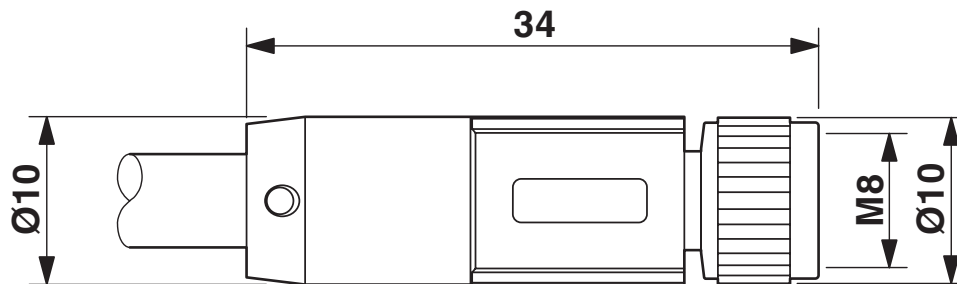
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Dimensional drawing



# SAC-5P-M 8MS/ 1,0-920/M 8FS - Bus system cable



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1575848>

	<b>UL Listed</b> Approval ID: FILE E 221474			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	30 V	3 A	-	-

	<b>cUL Listed</b> Approval ID: FILE E 221474			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	30 V	3 A	-	-

	<b>EAC-RoHS</b> Approval ID: RU D-DE.HB35.B.00387			

<b>cULus Listed</b>
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# SAC-5P-M 8MS/ 1,0-920/M 8FS - Bus system cable



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## Classifications

### ECLASS

ECLASS-11.0	27060307
ECLASS-12.0	27060307
ECLASS-13.0	27060307

### ETIM

ETIM 9.0	EC001855
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### UNSPSC

UNSPSC 21.0	26121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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## Accessories

### SAC-5P-M 8MS DN TR - Termination resistor

1435988

<https://www.phoenixcontact.com/us/products/1435988>

Termination resistor, DeviceNet™, M8, 5-pos.



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### SAC-5P-M 8MS-M 8FS/920/... - Bus system cable

1575893

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Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), Plug straight M8, coding: A, on Socket straight M8, coding: A, cable length: Free input (0.2 ... 40.0 m), Connector unshielded



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### SAC-5P-M 8MR-M 8FS/920/... - Bus system cable

1575932

<https://www.phoenixcontact.com/us/products/1575932>



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), Plug angled M8, coding: A, on Socket straight M8, coding: A, cable length: Free input (0.2 ... 40.0 m), Connector unshielded

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### SAC-5P-M 8MR-M 8FR/920/... - Bus system cable

1575945

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Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), Plug angled M8, coding: A, on Socket angled M8, coding: A, cable length: Free input (0.2 ... 40.0 m), Connector unshielded

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## SAC-5P-M 8MS/920/... - Bus system cable

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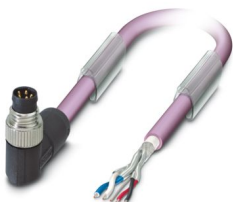
Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), Plug straight M8, coding: A, on free cable end, cable length: Free input (0.2 ... 40.0 m), Connector unshielded

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## SAC-5P-M 8MR/920/... - Bus system cable

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Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), Plug angled M8, coding: A, on free cable end, cable length: Free input (0.2 ... 40.0 m), Connector unshielded

# SAC-5P-M 8MS/ 1,0-920/M 8FS - Bus system cable



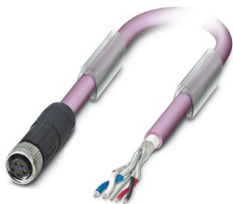
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## SAC-5P-M 8FS/920/... - Bus system cable

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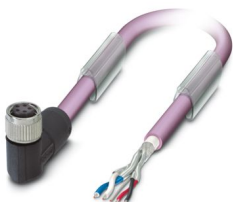


Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), free cable end, on Socket straight M8, coding: A, cable length: Free input (0.2 ... 40.0 m), Connector unshielded

## SAC-5P-M 8FR/920/... - Bus system cable

1575916

<https://www.phoenixcontact.com/us/products/1575916>



Bus system cable, CANopen<sup>®</sup>, DeviceNet<sup>™</sup>, 5-position, PUR halogen-free, red lilac RAL 4001, shielded (Tinned copper braided shield), free cable end, on Socket angled M8, coding: A, cable length: Free input (0.2 ... 40.0 m), Connector unshielded

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## PROT-M 8 FS-PA-CHAIN - Sealing cap

1430857

<https://www.phoenixcontact.com/us/products/1430857>

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 plugs



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## PROT-M 8 MS-PA-CHAIN - Screw plug

1430860

<https://www.phoenixcontact.com/us/products/1430860>

M8 sealing cap made of plastic with fixing band for sensor cables, for M8 sockets



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## TSD 02 SAC - Torque screwdriver

1208487

<https://www.phoenixcontact.com/us/products/1208487>



Torque screwdriver, with preset torque of 0.2 Nm and 4 mm hexagonal drive for M8 connectors

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## SAC BIT M8-D10 - Tool

1208461

<https://www.phoenixcontact.com/us/products/1208461>



Nut for assembling M8 connectors with longitudinal knurl and a knurl diameter of 10 mm, for 4 mm hexagonal drive

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