

# SAC M12 Bus Cables for CANopen and DeviceNet

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# M12 Bus Cables for CANOpen and DeviceNet



Description	No. of pos.	Type	Order No.	Pcs./Pkt.
Preassembled bus cable CANOpen and DeviceNet, M12 male connector, straight, shielded, 5-pos., A-coded, free cable end,	2	SAC-5P-M12MS/2,0-920	15 07 42 1	1
	5	SAC-5P-M12MS/5,0-920	15 07 43 4	
	10	SAC-5P-M12MS/10,0-920	15 07 44 7	
	15	SAC-5P-M12MSB/15,0-920	15 07 45 0	
Preassembled bus cable CANOpen and DeviceNet, M12 female connector, straight, shielded, 5-pos., A-coded, free cable end,	2	SAC-5P-2,0-920/M12FS	15 07 47 6	1
	5	SAC-5P-5,0-920/M12FS	15 07 48 9	
	10	SAC-5P-10,0-920/M12FS	15 07 49 2	
	15	SAC-5P-15,0-920/M12FS	15 07 50 2	
Preassembled bus cable CANOpen and DeviceNet, M12 male connector, straight, shielded, 5-pos., A-coded, M12 female connector, straight, shielded, 5-pos., A-coded	0.3	SAC-5P-M12MS/ 0,3-920/M12FS	15 07 52 8	1
	0.5	SAC-5P-M12MS/ 0,5-920/M12FS	15 07 53 1	
	1	SAC-5P-M12MS/ 1,0-920/M12FS	15 07 54 4	
	2	SAC-5P-M12MS/ 2,0-920/M12FS	15 07 55 7	
	5	SAC-5P-M12MS/ 5,0-920/M12FS	15 07 56 0	
	10	SAC-5P-M12MS/ 10,0-920/M12FS	15 07 57 3	
	15	SAC-5P-M12MS/ 15,0-920/M12FS	15 07 58 6	

## Technical data

### Insulation material

### Rated current

[A]

### Rated voltage

[V]

### Degree of protection

### Temperature range

[°C]

### Contact resistance

[Ω]

### Contact material / Contact surface

PBT, hardly inflammable, self-extinguishing

4

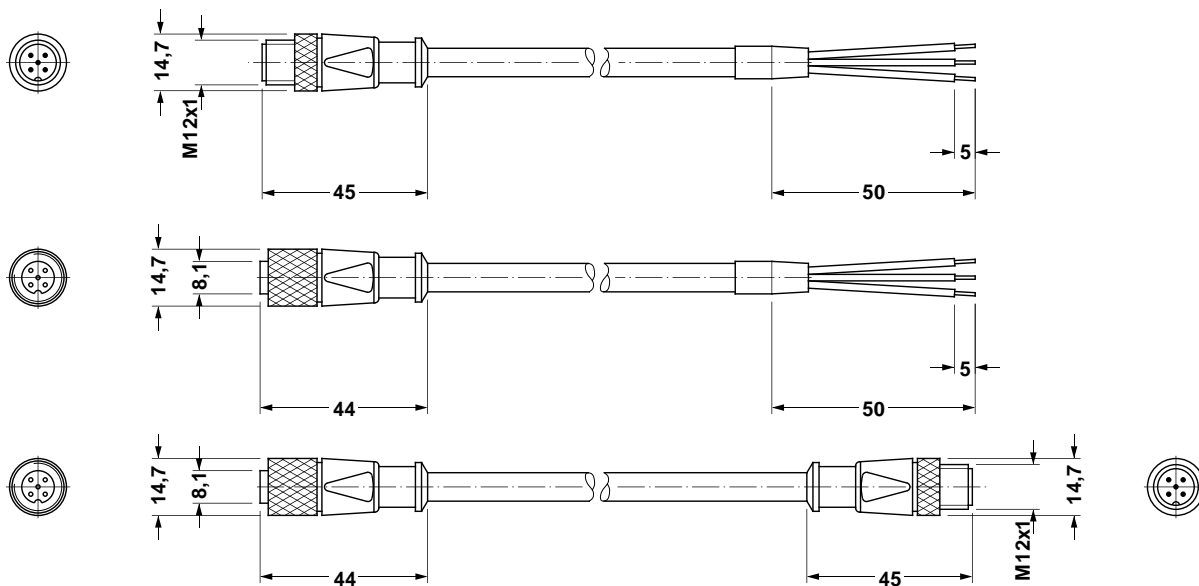
320 / 160 for 5-pos.

IP 67

-25 to +90 (male/female)

≤ 5

CuNi/Au



Dimensional drawings  
Phoenix Contact page 2 of 3

# Cable specifications

## CANopen / DeviceNet cables

1 x 2 x AWG 22 (power pair)

1 x 2 x AWG 24 (data pair)

### Technical data

General data	Power pair	Data pair
Conductor material	Copper, tin-plated, fine strand, AWG 22/19	Copper, tin-plated, fine strand, AWG 24/19
Insulation material	PVC (→ 1.4 ± 0.05 mm)	PE foam (→ 2.05 ± 0.10 mm)
Color code	Red & Black	Blue & White
Shield material	Braided shielding of tin-plated copper, nominal coverage 70%	
Wadding	Fiber matting	
Sheath material	Special PUR; Color RAL 4001	
External diameter	6.70 mm ± 0.3	
Structure	Power and data wire pair with a fine strand, tin-plated, common drain wire (AWG 22/19) in the center. Each pair shielded with an aluminum foil on the outside (wadding: polyester)	

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### Mechanical data

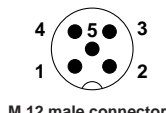
Bending radius	10 x external diameter
Max. traversing rate	180 m/min
Acceleration	7 m/sec <sup>2</sup>
Typ. traversing path	1.5-10 m
Repeated bending cycles	> 1 000 000
Ambient temperature	-10°C to +80°C
Storage temperature	-30°C to +80°C
Max. tensile strength	20 N/mm <sup>2</sup>

### Electrical data

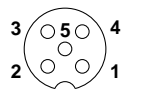
Conductor resistance	≤ 51.6 Ω/km	≤ 78.4 Ω/km
Insulation resistance	100 MΩ*km	5 000 MΩ*km
Test voltage	2.0 kV* 1 min	1.5 kV* 1 min
Capacity		core / core: 39.3 pF/m core / shield: 78.7 pF/m
Impedance		120 Ω ± 10% (1 MHz)

### Approvals

UL/CSA	UL Style 21126
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M 12 male connector



M 12 female connector

Pin assignment, 5-pos., A-coded

PIN	Core color	Signal CANopen	Signal DeviceNet
1	Shield	–	Drain
2	Red	–	V+
3	Black	CAN_GND	V–
4	White	CAN_H	CAN_H
5	Blue	CAN_L	CAN_L

Assignment

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