

# Bus system flat-type plug - SACCEC-M12FS-5CON-M16/ 2,0-920 - 1525694

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Bus system flush-type socket, DeviceNet/CANopen, 5-pos., M12, shielded, A-coded, front/screw mounting, with M16 thread, can be positioned, with 2 m bus cable, 2 x 0.2 mm<sup>2</sup>; 2 x 0.32 mm<sup>2</sup>



## Key commercial data

Packing unit	1 pc
GTIN	 4 046356 022439
Weight per Piece (excluding packing)	143.2 g
Custom tariff number	85444290
Country of origin	Germany

## Technical data

### Dimensions

Length of cable	2 m
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### Ambient conditions

Ambient temperature (operation)	-25 °C ... 85 °C (Plug / socket)
Degree of protection	IP67

### General

Note	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
Rated current at 40°C	4 A
Rated voltage	60 V
Number of positions	5
Contact resistance	≤ 3 mΩ
Insulation resistance	≥ 100 MΩ
Coding	A - standard

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## Technical data

### General

Standards/regulations	M12 connector IEC 61076-2-101
Status display	No
Surge voltage category	II
Pollution degree	3
Test voltage	2500 V
Connection method	CAN Bus / DeviceNet
Insertion/withdrawal cycles	> 100
Torque	3 Nm ... 4 Nm (Installation-side)
Mounting type	Front mounting M16 x 1.5 With locking nut

### Material

Inflammability class according to UL 94	V0
Contact material	CuZn
Contact surface material	Ni/Au
Contact carrier material	PA 66
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR

### Cable

Cable type	CAN Bus/DeviceNet
Cable type (abbreviation)	920
UL AWM style	21198 (80°C/300 V)
Conductor cross section	2x 0.25 mm <sup>2</sup> (signal line)
	2x 0.34 mm <sup>2</sup> (Power supply)
	1x 0.34 mm <sup>2</sup> (Drain wire)
AWG signal line	24
AWG power supply	22
Conductor structure signal line	19x 0.13 mm
Conductor structure, voltage supply	19x 0.15 mm
Core diameter including insulation	1.95 mm ±0.05 mm (signal line)
	1.4 mm ±0.05 mm (Power supply)
Wire colors	Red-black, blue-white
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	80 %
External sheath, color	Violet, RAL 4001
External cable diameter D	6.7 mm ±0.3 mm
Number of bending cycles	5000000

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## Technical data

### Cable

Bending radius	70 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s <sup>2</sup>
Outer sheath, material	PUR
Material conductor insulation	Foamed PE (signal line)
	PE (Power supply)
Conductor material	Tin-plated Cu litz wires
Insulation resistance	≥ 5 GΩ*km (signal line)
	≥ 5 GΩ*km (Power supply)
Loop resistance	≤ 181.8 Ω (signal line)
	≤ 114.8 Ω (Power supply)
Working capacitance	nom. 40 nF (signal line)
Wave impedance	120 Ω ±12 Ω (f = 1 MHz)
Shield attenuation	≤ 0.229 dB/km (with 1 MHz)
	≤ 0.164 dB (At 500 kHz)
	≤ 0.095 dB (At 125 kHz)
Nominal voltage, cable	≤ 300 V (Peak value, not for high-power applications)
Test voltage Core/Core	2000 V (50 Hz, 1 min.)
Test voltage Core/Shield	2000 V (50 Hz, 1 min.)
Flame resistance	UL 1581, Sec. 1060 (FT-1)
	IEC 60332-1
Ambient temperature (operation)	-40 °C ... 80 °C (cable, fixed installation)
	-20 °C ... 70 °C (cable, flexible installation)

## Classifications

### eCl@ss

eCl@ss 4.0	27140815
eCl@ss 4.1	27140815
eCl@ss 5.0	27143423
eCl@ss 5.1	27143423
eCl@ss 6.0	27143423
eCl@ss 7.0	27449001
eCl@ss 8.0	27440103

### ETIM

ETIM 2.0	EC001297
ETIM 3.0	EC002061

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## Classifications

### ETIM

ETIM 4.0	EC000830
ETIM 5.0	EC002061

### UNSPSC

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	31251501

## Approvals

### Approvals

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Approvals

EAC

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Ex Approvals

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Approvals submitted

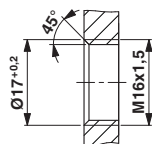
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### Approval details

EAC
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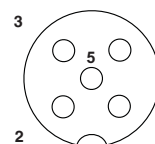
## Drawings

Dimensioned drawing



Housing cutout for M16 fastening thread, mounting panel with thread

Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

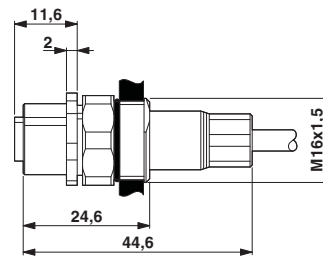
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Cable cross section



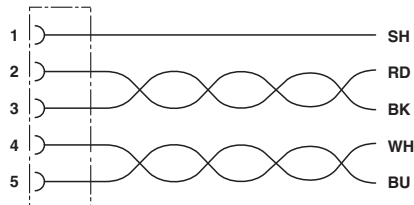
CAN Bus/DeviceNet [920]

Dimensioned drawing



M12 flush-type connector

Circuit diagram



Contact assignment of the M12 socket