

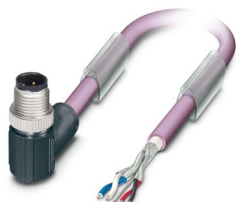
SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Bus system cable, CANopen®, DeviceNet™, 5-position, PUR halogen-free, red lilac RAL 4001, shielded, Plug angled M12, coding: A, on free cable end, cable length: Free input (0.2 m ... 100.0 m)

Commercial data

Item number	1431089
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	BF17
Product key	AF1CKD
Customs tariff number	85444290
Country of origin	PL

SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Technical data

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
Status display present	no

Electrical properties

Insulation resistance	≥ 100 MΩ
Nominal voltage U_N	48 V AC 60 V DC
Nominal current I_N	4 A
Transmission medium	Copper

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100
-----------------------------	-------

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

SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Connector

Connection 1

Type	Plug angled M12
Number of positions	5
Coding type	A (Standard)
Ambient temperature (operation)	-25 °C ... 90 °C


Connection 2

Type	free cable end
------	----------------

Cable/line

Cable length	Free input (0.2 m ... 100.0 m)
--------------	--------------------------------

CANopen®/DeviceNet™, PUR, violet [920]

Dimensional drawing	
UL AWM Style	21198 (80°C/300 V)
Number of positions	4
Shielded	yes
Cable type	CANopen®/DeviceNet™, PUR, violet [920]
Conductor structure	2xAWG24/19+2xAWG22/19
AWG signal line	24
AWG power supply	22
Conductor cross-section	2x 0.25 mm ² (Data cable) 2x 0.34 mm ² (Power supply) 1x 0.34 mm ² (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
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
Overall twist	2 pairs around a drain wire in the center to the core

SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Optical shield covering	80 %
Insulation resistance	≥ 5 GΩ*km (Data cable)
	≥ 5 GΩ*km (Power supply)
Wave impedance	120 Ω ±10 % (with 1 MHz)
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	2000.00 V (50 Hz, 1 min.)
Minimum bending radius, fixed installation	4 x D
Minimum bending radius, flexible installation	8 x D
Dynamic load capacity (bending)	Max. bending cycles: 5000000, Bending radius: 70 mm, Bending radius: 15 x D, Traversing path: 4.5 m, Traversing rate: 3 m/s, Acceleration: 3 m/s ² , Ambient temperature: -20 °C ... 60 °C
Shield attenuation	≤ 22.9 dB/km (with 1 MHz)
	≤ 16.4 dB/km (At 500 kHz)
	≤ 9.5 dB/km (At 125 kHz)
Halogen-free	in accordance with DIN VDE 0472 part 815
	according to IEC 60754-1
Flame resistance	UL 1581, Section 1060 and UL 2556, Section 9.3 (FT1)
	UL 1581, Section 1100 and UL 2556, Section 9.1 (HFT/FT2)
	IEC 60332-1-2
	in accordance with ISO 6722-1 5.22 (UN ECE-R 118.01)
Special properties	Flexible cable conduit capable
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)

Standards and regulations

Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101

SAC-5P-M12MR/920/... - Bus system cable

1431089

<https://www.phoenixcontact.com/us/products/1431089>

Drawings

Dimensional drawing



M12 x 1 male plug, angled, shielded

Schematic diagram



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

SAC-5P-M12MR/920/... - Bus system cable

1431089

<https://www.phoenixcontact.com/us/products/1431089>

Circuit diagram



Contact assignment of the M12 plug

SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1431089>

 UL Listed Approval ID: FILE E 221474				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	125 V	4 A	-	-

 cUL Listed Approval ID: FILE E 221474				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	125 V	4 A	-	-

 EAC-RoHS Approval ID: RU D-DE.HB35.B.00387	
--	--

SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Classifications

ECLASS

ECLASS-13.0	27060307
ECLASS-15.0	27060307

UNSPSC

UNSPSC 21.0	26121600
-------------	----------

SAC-5P-M12MR/920/... - Bus system cable



1431089

<https://www.phoenixcontact.com/us/products/1431089>

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

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%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved
<https://www.phoenixcontact.com>

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