

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

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, Socket straight M12 SPEEDCON, coding: A, on Socket straight M12 SPEEDCON, coding: A and Plug straight M12 SPEEDCON, coding: A, cable length: 0.3 m, all connectors unshielded, Shield connected to pin 1

Commercial data

Item number	1436013
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF10
Product key	BF1GAD
Catalog page	Page 434 (C-2-2019)
GTIN	4046356428361
Weight per piece (including packing)	90.8 g
Weight per piece (excluding packing)	93 g
Customs tariff number	85444290
Country of origin	PL

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Technical data

Product properties

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

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

Dimensions

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Dimensional drawing



Center distance

21 mm

Connection data

Pin assignment

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

Connector

Connection 1

Type	Socket straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	A (Standard)
Ambient temperature (operation)	-25 °C ... 90 °C

Connection 2

Type	Socket straight M12 SPEEDCON
Number of positions	5
Locking type	SPEEDCON
Coding type	A (Standard)
Ambient temperature (operation)	-25 °C ... 90 °C

Connection 3

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

Cable/line

Cable length	0.3 m
--------------	-------

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

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Dimensional drawing	
Cable weight	90 kg/km
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
Conductor structure signal line	19x 0.13 mm
AWG signal line	24
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
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	≥ 5 GΩ*km (Data cable)
	≥ 5 GΩ*km (Power supply)
Loop resistance	≤ 181.80 Ω/km (Data cable)
	≤ 114.80 Ω/km (Power supply)
Wave impedance	120 Ω ±10 % (with 1 MHz)
Cable capacity	nom. 40 nF/km (Data cable)
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	5 x D
Minimum bending radius, flexible installation	10 x D
Smallest bending radius, fixed installation	34 mm

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Smallest bending radius, movable installation	67 mm
Max. bending cycles	5000000
Minimum bending radius, drag chain applications	10 x D
Bending radius	70 mm
Traversing path	4.5 m
Traversing rate	3 m/s
Acceleration	3 m/s²
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	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

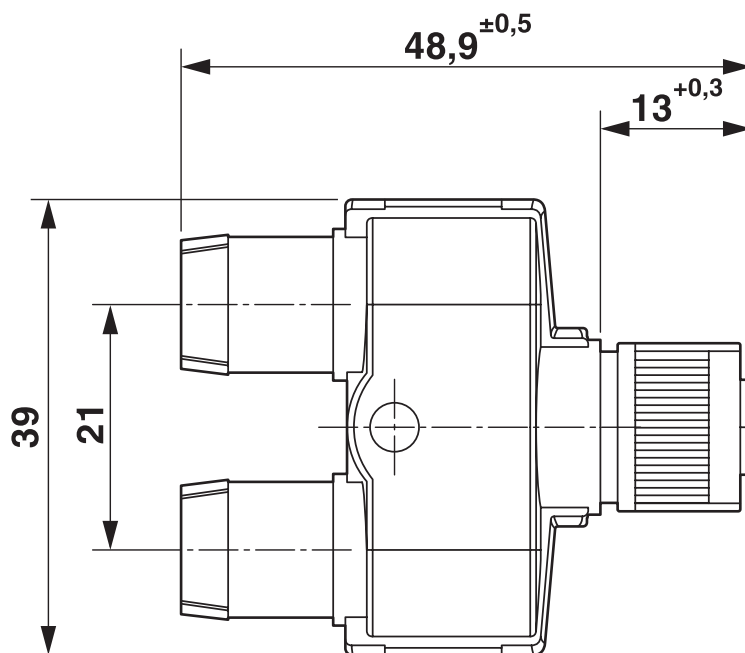
Degree of protection	IP65
	IP67

Standards and regulations

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

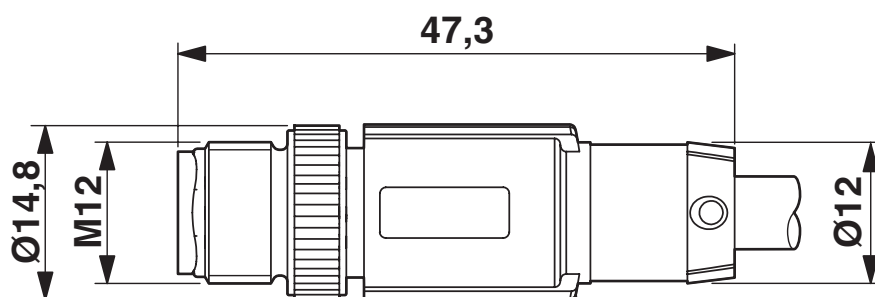
Drawings

Dimensional drawing



M12-SPEEDCON socket, Y-distributor

Dimensional drawing



M12 SPEEDCON plug, straight

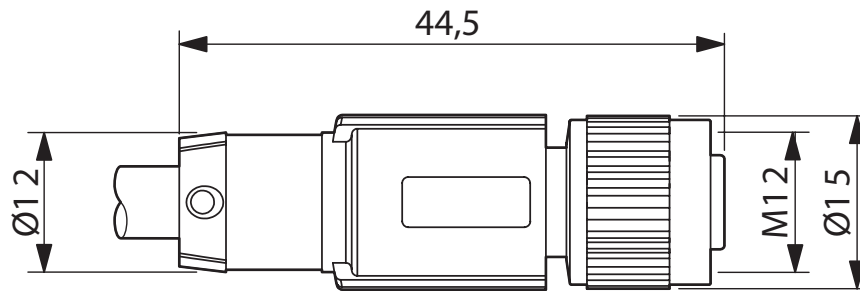
SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

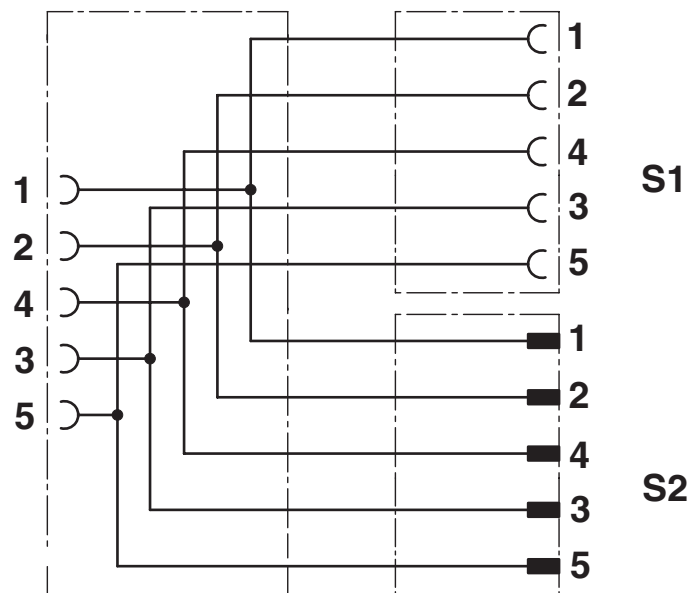
<https://www.phoenixcontact.com/us/products/1436013>

Dimensional drawing

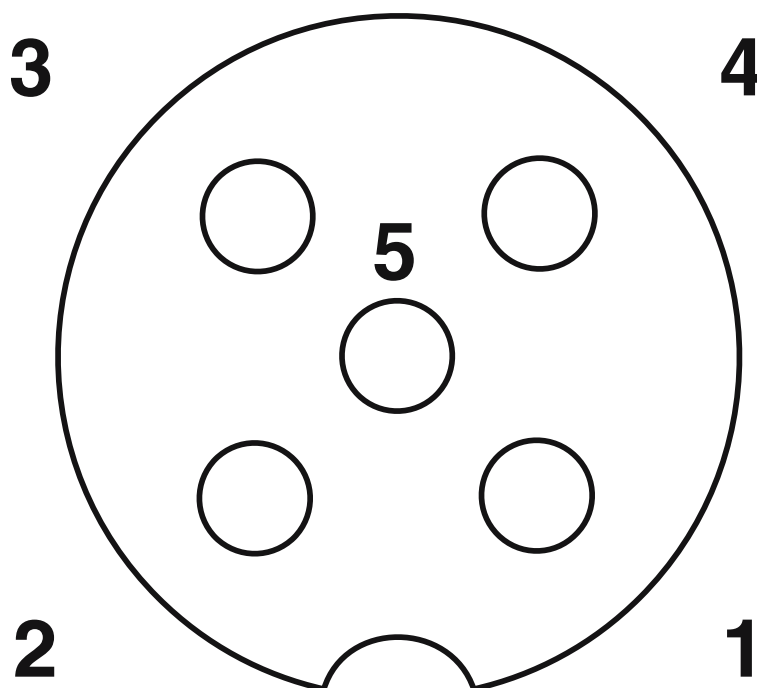


M12-SPEEDCON socket, straight

Circuit diagram

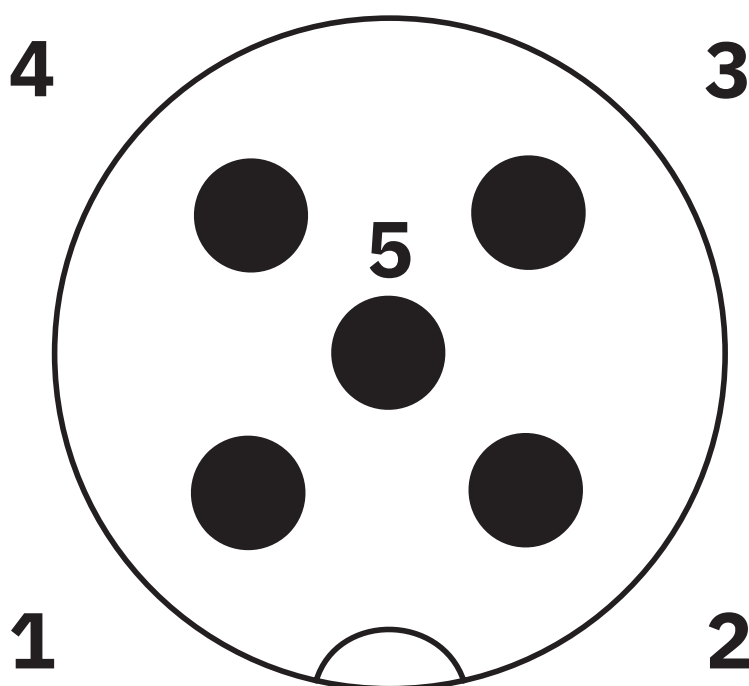


Schematic diagram



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

Schematic diagram



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

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1436013>

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

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

cULus Listed				
---------------------	--	--	--	--

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Classifications

ECLASS

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

ETIM

ETIM 9.0	EC001855
----------	----------

UNSPSC

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

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

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%

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

Accessories

PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

<https://www.phoenixcontact.com/us/products/1430873>

M12 sealing cap made of plastic with fixing band, for sensor cables, for free M12 plugs



SAC-M12-EXCLIP-M - Locking clip

1558988

<https://www.phoenixcontact.com/us/products/1558988>

Locking clip for the pin side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

PROT-M12 MS-PA-CHAIN - Screw plug

1430899

<https://www.phoenixcontact.com/us/products/1430899>

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



SAC-M12-EXCLIP-F - Locking clip

1558991

<https://www.phoenixcontact.com/us/products/1558991>

Locking clip for the socket side of sensor/actuator cables with M12 connector and M12 connectors for assembly, for knurl diameter: 15 mm or for Allen key with a wrench size of 14 mm, prevents the disconnection of plug-in connections without tools



SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable

1436013

<https://www.phoenixcontact.com/us/products/1436013>



SAC-5PH-M-F/2XF SH1 SCO - H distributor

1417414

<https://www.phoenixcontact.com/us/products/1417414>



H distributor, 5-position, shielded, Plug straight M12, coding: A, on Socket straight M12, coding: A and Socket straight M12, coding: A, Thread M12 not rotatable, Parallel distributor

SAC-5P-M12T/2XM12 VP - T distributor

1541186

<https://www.phoenixcontact.com/us/products/1541186>



T distributor, 5-position, unshielded, Plug straight M12, coding: A, on Socket straight M12, coding: A and Socket straight M12, coding: A, Parallel distributor

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable

1436013

<https://www.phoenixcontact.com/us/products/1436013>



SAC-5PT-F/F-M VP - T distributor

1424712

<https://www.phoenixcontact.com/us/products/1424712>



T distributor, CANopen®, DeviceNet™, 5-position, unshielded, Socket straight M12, coding: A, on Socket straight M12, coding: A and Plug straight M12, coding: A, Parallel distributor

SAC-5P-M12MS CAN TR - Termination resistor

1507816

<https://www.phoenixcontact.com/us/products/1507816>



Terminating resistor CANopen®/DeviceNet™ M12

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

TSD 04 SAC - Torque screwdriver

1208429

<https://www.phoenixcontact.com/us/products/1208429>



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

TSD-M 1,2NM - Torque screwdriver

1212224

<https://www.phoenixcontact.com/us/products/1212224>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

SAC-5PY-F/2X 0,3-920-MS-FS - Bus system cable



1436013

<https://www.phoenixcontact.com/us/products/1436013>

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600

<https://www.phoenixcontact.com/us/products/1212600>



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

SAC BIT M12-D15 - Tool

1208432

<https://www.phoenixcontact.com/us/products/1208432>



Nut for assembling sensor/actuator cables with M12 connector and M12 connectors for assembly, with a knurl diameter of 15 mm, for 4 mm hexagonal drive

Phoenix Contact 2024 © - 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