

# Data connector - SACC-M12FRD-4PL SH PN - 1424685

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)

Data connector, PROFINET CAT5 (100 Mbps), 4-position, shielded, Socket angled M12, Coding: D, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm




## Your advantages

- ✓ Easy and tool-free connection by means of Push-in Technology
- ✓ Conveniently connect stranded conductors, thanks to lever
- ✓ Reliable and quick connection of electric cables
- ✓ Flexible signal and data cabling
- ✓ Flexible cable outlets with angled connectors
- ✓ Quick and easy installation, thanks to Push-in connection technology



PROFINET SERCOS EtherCAT

## Key Commercial Data

Packing unit	1 pc
GTIN	 4 055626 376127
GTIN	4055626376127

## Technical data

### Dimensions

Diameter housing	19 mm
Length	48 mm
External cable diameter	4 mm ... 8 mm
Stripping length of the sheath	31 mm
Stripping length of the individual wire	7 mm

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C (Plug / socket)
Degree of protection	IP65
	IP67

### General

# Data connector - SACC-M12FRD-4PL SH PN - 1424685

## Technical data

### General

Note	This product corresponds to the PROFINET Cabling and Interconnection Technology Guideline for PROFINET regulations, version 2.00, order no: 2.252, Chapter 8.2 Connectors for Outside Environment (Balanced cabling)
	NOTE: Observe the permissible bending radii when laying conductors, since the degree of protection may be put in jeopardy if the bending forces are too high. Alleviate mechanical loads upstream of the connector, e.g. by using cable ties.
Rated current at 40°C	4 A (2 A when using 0.14 mm <sup>2</sup> conductors)
Rated voltage	48 V AC
	60 V DC
Number of positions	4
Insulation resistance	≥ 100 MΩ
Coding	D - data
Standards/regulations	M12 connector IEC 61076-2-101
	Shock, vibration EN 50155:2001
Signal type/category	PROFINET CAT5 (on the basis of IEC 11801), 100 Mbps
Status display	No
Overvoltage category	II
Degree of pollution	3
Connection method	Push-in connection
Conductor cross section	0.14 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (without ferrule)
	0.08 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> (with ferrule)
	0.14 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (solid)
Conductor cross section AWG	26 ... 18 (without ferrule)
	28 ... 20 (with ferrule)
Insertion/withdrawal cycles	≥ 100 (Quantity: 500 with Phoenix Contact mating connector)
Torque	0.4 Nm (M12 knurl)
	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)
Assembly instructions	The connector pin assignment can be rotated 45° to the cable outlet
	The wires can be connected both with ferrules and without ferrules
Transmission characteristics (category)	CAT5

### Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material of grip body	Zinc die-cast, nickel-plated
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	NBR
Additional material specifications	TPE-U (Clamping cage, weight: 1.1 g)

## Data connector - SACC-M12FRD-4PL SH PN - 1424685

### Technical data

#### Material

	PA 6 (Actuation lever)
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, R25, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
	PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

#### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
	Shock, vibration EN 50155:2001
Flammability rating according to UL 94	V0
Standards/regulations	acc. to DIN EN 45545-2

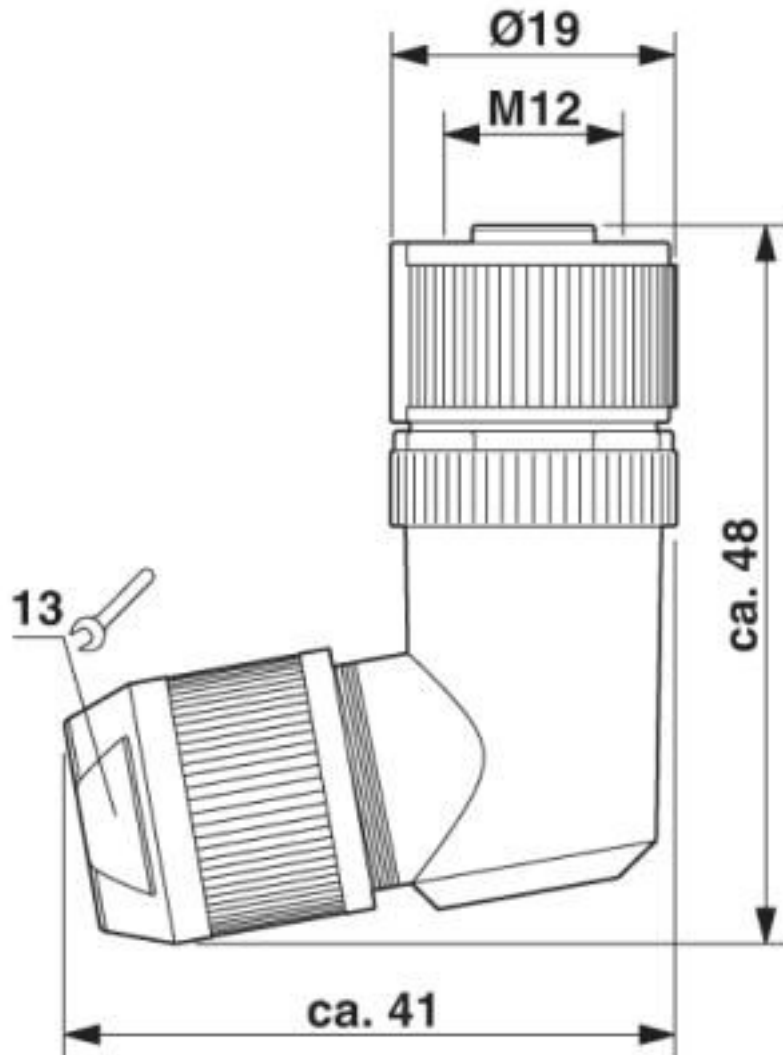
#### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

### Drawings

# Data connector - SACC-M12FRD-4PL SH PN - 1424685

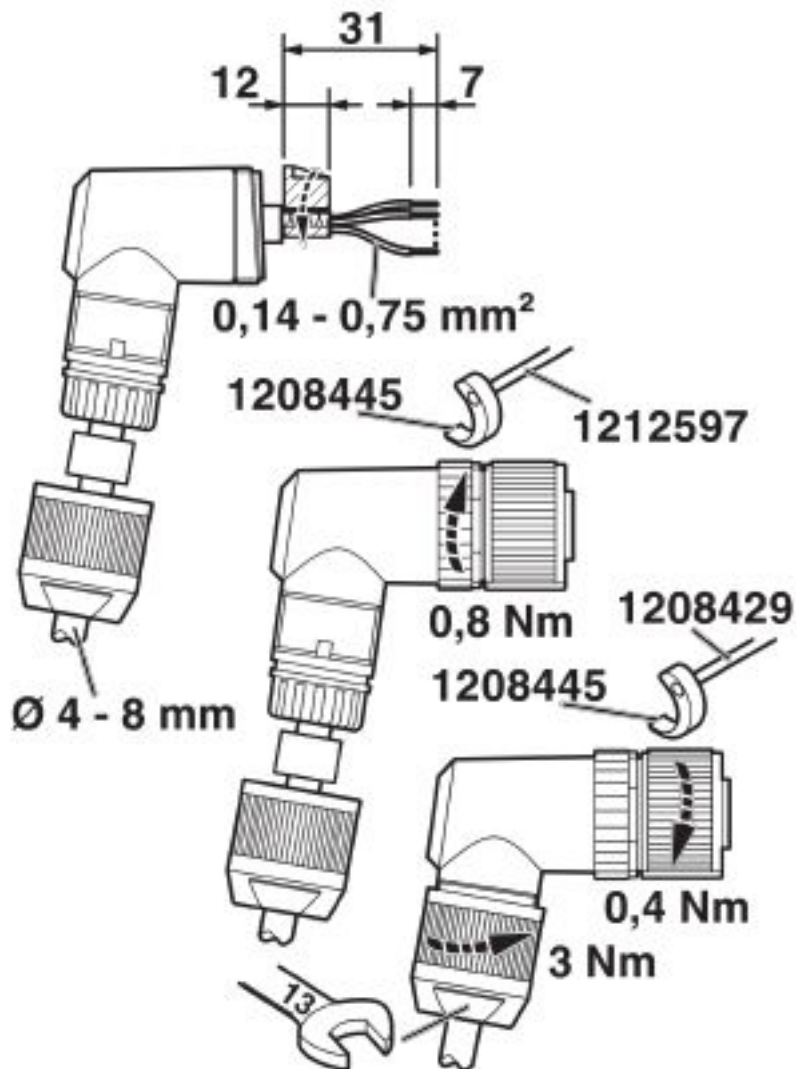
Dimensional drawing



Socket M12-SPEEDCON, angled, shielded

## Data connector - SACC-M12FRD-4PL SH PN - 1424685

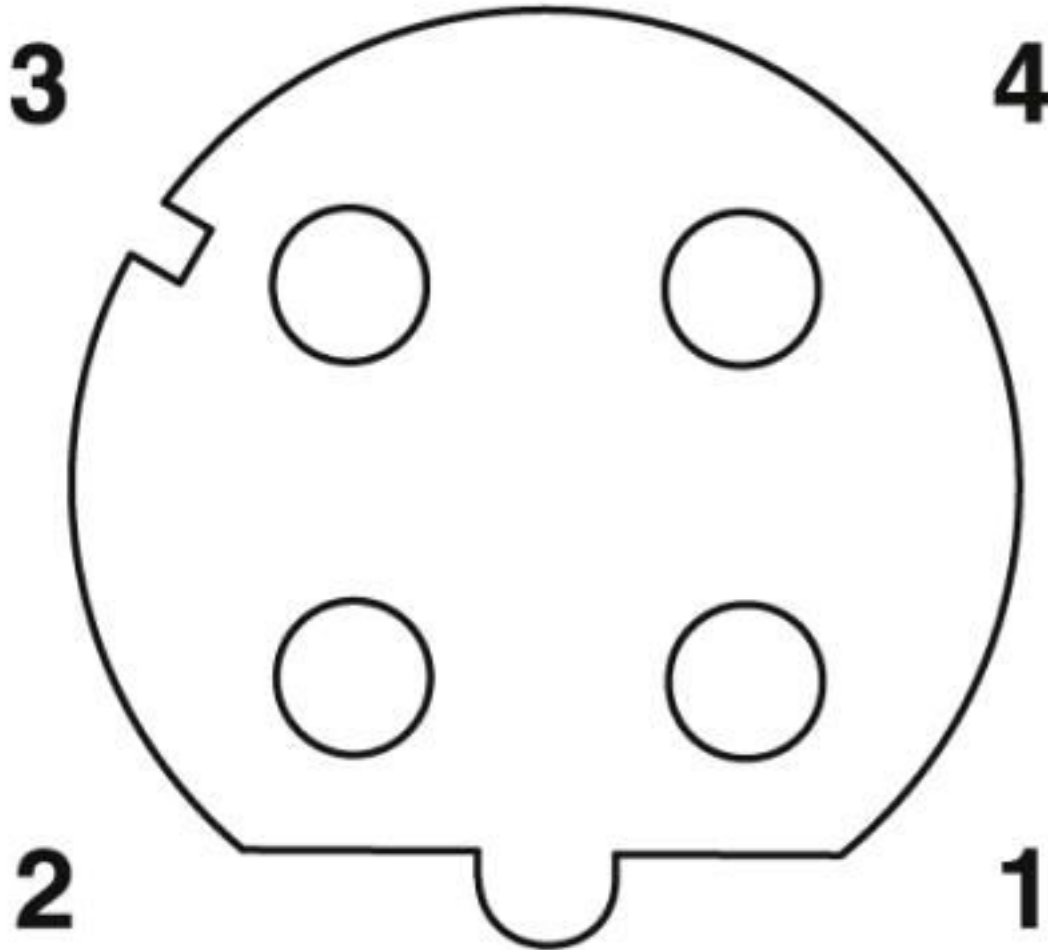
Functional drawing



Slide the pressure nut and sleeve housing along the cable, strip the cable, shorten the shield, strip the single wires, connect the wires, in the case of a straight sleeve housing gently twist the wires together, stick the shielding foil around the shortened shield, in the case of a cable outside diameter  $< 6 \text{ mm}$  stick an additional shielding foil around the wire pack, screw the sleeve housing to the plug insert, screw the pressure nut tight.

# Data connector - SACC-M12FRD-4PL SH PN - 1424685

Schematic diagram



Pin assignment M12 socket, 4-pos., D-coded, female side

## Classifications

eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 5.1	27143423
eCl@ss 6.0	27279200
eCl@ss 7.0	27440104
eCl@ss 8.0	27440104
eCl@ss 9.0	27440102

ETIM

ETIM 5.0	EC002635
ETIM 6.0	EC002635
ETIM 7.0	EC002635

# Data connector - SACC-M12FRD-4PL SH PN - 1424685

## Approvals

### Approvals

#### Approvals

EAC / UL Listed / cUL Listed / EAC / cULus Listed

#### Ex Approvals

### Approval details

EAC			RU C-DE.AI30.B.01102
-----	--	--	----------------------

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E221474
Nominal voltage UN		60 V	
Nominal current IN		4 A	
mm <sup>2</sup> /AWG/kcmil		26-18	

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E221474
Nominal voltage UN		60 V	
Nominal current IN		4 A	
mm <sup>2</sup> /AWG/kcmil		26-18	

EAC			RU C-DE.BL08.B.00511
-----	--	--	----------------------

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

## Accessories

### Accessories

Cable end sleeve

## Data connector - SACC-M12FRD-4PL SH PN - 1424685

### Accessories

Ferrule - AI 0,25- 6 YE - 3203024



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: yellow

---

Ferrule - A 0,25- 7 - 3202478



Ferrule, length: 7 mm, color: silver

---

Ferrule - A 0,34- 7 - 3009202



Ferrule, length: 7 mm, color: silver

---

Ferrule - A 0,5 - 6 - 3200218



Ferrule, length: 6 mm, color: silver

---

Ferrule - AI 0,5 - 6 WH - 3200687



Ferrule, sleeve length: 6 mm, length: 12 mm, color: white

---

### Crimping tool



## Data connector - SACC-M12FRD-4PL SH PN - 1424685

### Accessories

Crimping pliers - CRIMPFOX 6H - 1212046



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm<sup>2</sup> ... 6 mm<sup>2</sup>, unlockable pressure lock, lateral entry

---

### Data cable by the meter

Network cable - VS-OE-OE-93B/... - 1417362



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PVC, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m)

---

Network cable - VS-OE-OE-93C/... - 1417491



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m), For drag chains

---

Network cable - VS-OE-OE-93R/... - 1417388



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PUR halogen-free, green RAL 6018, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m), For robots

---

Network cable - VS-OE-OE-936/... - 1417375



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded, free cable end, on free cable end, cable length: Free input (0.5 ... 100 m), For railway applications

## Data connector - SACC-M12FRD-4PL SH PN - 1424685

### Accessories

Network cable - VS-OE-OE-937/... - 1402687



Network cable, PROFINET CAT5 (100 Mbps), 4-position, PE-X halogen-free, black RAL 9005, shielded, free cable end, on free cable end, cable length: Free entry (0.5 ... 400 m), For railway applications

---

### Plug for cable screw gland

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

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



---

### Screwdriver tools

Tool - SACC BIT M12-D20 - 1208445

Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive



---

Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



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

---

### Shield connection

Shielding foil - ALU-SB - 1404531

Shielding foil, for fixing the braided shield of shielded cables. Length: 4 cm, width: 1.2 cm



---

### Stripping tool

## Data connector - SACC-M12FRD-4PL SH PN - 1424685

### Accessories

Stripping tool - WIREFOX 2,5 - 1212368



Stripping tool, for conductors and cables with a conductor cross section from 0.08 to 2.5 mm, self-adjusting, stripping length adjustable up to 15 mm, cutting capacity up to 6 mm<sup>2</sup> stranded/1.5 mm<sup>2</sup> solid

---

### Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



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

---

Torque screwdriver - TSD 08 SAC - 1212597



Torque screw driver with preset torque of 0.8 Nm, with 4 mm hexagon for accommodating SAC bits, two-component handle with non-slip grip

---

Torque screwdriver - TSD-M 1,2NM - 1212224



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

---

Stripping tool - VS-CABLE-STRIP-VARIO - 1657407



Stripping tool, for the multi-level stripping of shielded cables

---

---

Phoenix Contact 2020 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Circular Metric Connectors](#) category:*

*Click to view products by [Phoenix Contact](#) manufacturer:*

Other Similar products are found below :

[600X518037X](#) [6STD15PCR99B70A](#) [8R4000A16M020](#) [8R5000A16M005](#) [1200910002](#) [1203580030](#) [1200910008](#) [1200910011](#) [1300140094](#)  
[130203-0054](#) [1300140026](#) [1300150099](#) [RF-12S1N8A90DU](#) [1-3637-600-5205](#) [1612618](#) [21036836414](#) [8R4006A16M010](#) [1604232](#)  
[1R3006A20M005](#) [RF-12P1N8A90DU](#) [41-40011](#) [42-00006](#) [42-01015](#) [4-22279-4](#) [4-22281-1](#) [4-22284-9](#) [43-00113](#) [43-01088](#) [43-01203](#) [41-](#)  
[40013](#) [42-00008](#) [43-00343](#) [43-01026](#) [43-01162](#) [43-01173](#) [43-10000](#) [XS3P-M421-2](#) [600X518050X](#) [SACC-DSI-FS-5P-PG9-L180 SC](#)  
[8R5006A16M020](#) [8R5006A16M005](#) [8R4000A16M010](#) [6-22279-3](#) [1605332](#) [N03FA03144](#) [1300140077](#) [43-16213](#) [43-01338](#) [XS2RD4265](#)  
[XS2R-D426-1](#)