1404641

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Power connector, Power, 4-position, Plug straight M12, S, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg11, external cable diameter 8 mm ... 10 mm, for AC current up to 12 A/630 V, Contact 4 leading

### Your advantages

- Safe use in the field, thanks to a high degree of protection
- · Screw connection: proven connection technology for a large selection of different conductors
- High-performance: AC connectors for up to 12 A and 630 V AC
- · Protection against incorrect connection using special S-coding

#### Commercial Data

Item number	1404641	
Packing unit	1 pc	
Minimum order quantity	1 pc	
Product Key	BF2CAB	
Catalog Page	Page 279 (C-2-2019)	
GTIN	4046356707725	
Weight per Piece (including packing)	25.82 g	
Weight per Piece (excluding packing)	25 g	
Customs tariff number	85366990	
Country of origin	DE	

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### **Technical Data**

### Notes

General	Strip 21 mm off the cable sheath, strip 6 mm off the conductor insulation, crimp the ferrule, then shorten this to 5 mm.  Conductor length with shortened ferrule: 20 mm. Connect conductors and tighten the mounting screws with 0.2 Nm.	
General	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.	

### Mounting

Connection method	Screw connection
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### Product properties

Product type	Circular connector (cable-side)	
Sensor type	Power	
Number of positions	4	
Application	Power supply	
No. of cable outlets	1	
Shielded	no	
Coding	S	
Cable outlet	straight	
Pg screw connection	Pg11	
Insulation characteristics		
Overvoltage category	III	

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#### **Dimensions**

Degree of pollution

Dimensional drawing	55.5 15.21 18.27 19.27
Width	20 mm
Height	20 mm
Length	65.5 mm
Wrench size, union nut	19 mm
External dimensions	
Outside diameter	8 mm 10 mm
Housing	
Diameter housing	20 mm

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### Material specifications

Color Handle area	black	
Flammability rating according to UL 94	V0	
Seal material	NBR	
Material of grip body	PA	
Contact material	CuZn Au	
Contact surface material		
Contact carrier material	PA	
Material for screw connection	Zinc die-cast, nickel-plated	

#### Connection data

#### Conductor connection

Connection method	Screw connection
Connection cross section	0.75 mm <sup>2</sup> 1.5 mm <sup>2</sup> (with ferrule)
	0.75 mm <sup>2</sup> 2.5 mm <sup>2</sup> (solid)
Connection cross section AWG	18 16 (with ferrule)
Stripping length of the individual wire	5 mm
Tightening torque	0.4 Nm (M12 knurl)
	1.5 Nm 2 Nm (Pressure screw with sleeve housing)
	0.4 Nm (Screw plug insert with sleeve housing as far it will go)
	0.2 Nm (Screw terminal blocks)

### Electrical properties

Rated surge voltage	6 kV	
Contact resistance	≤ 3 mΩ	
Insulation resistance	> 10 GΩ	
Nominal voltage U <sub>N</sub>	630 V AC	
Nominal current I <sub>N</sub>	12 A (when using 1.5 mm² conductors)	
	12 A (at 40 °C)	

### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	≥ 100

### Connector

### Connection 1

Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	S

#### Cable/line

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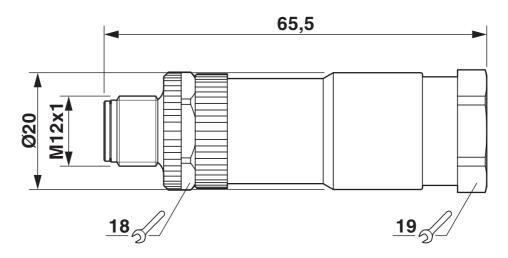
	Signal type/category	Power	
	Stripping length of the individual wire	5 mm	
	vironmental and real-life conditions  Ambient conditions		
	Degree of protection	IP67	
	Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)	
Standards and regulations			
	Standards/specifications	IEC 61076-2-111	

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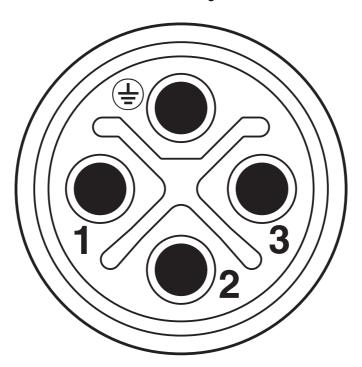
### Drawings

### Dimensional drawing



Plug, M12 x 1, straight

Schematic diagram



Connector pin assignment of M12 plug, 4-pos., S-coded, view of pin side

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### Approvals

 $\ensuremath{\mathfrak{V}}$  To download certificates, visit the product detail page: ID:1404641

.71	<b>cUL Recognized</b> Approval ID: FILE E 22147	74			
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		600 V	12 A	- 16	-

<b>71</b>	UL Recognized Approval ID: FILE E 221474				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		600 V	12 A	- 16	-

EAC	EAC Approval ID: RU C-DE.BL08.B.00511
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### Classifications

### **ECLASS**

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

### **ETIM**

ETIM 8.0 EC002635

### **UNSPSC**

UNSPSC 21.0 39121400

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### **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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#### Accessories

TSD 04 SAC - Torque screwdriver

1208429 ID: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 ID:1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0. 3 - 1.2 Nm

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

1212600

ID:**1212600** 



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

### SACC BIT M12-D20 - Tool

1208445

ID:1208445

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



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WIREFOX 6SC - Stripping tool

1212158 ID:1212158



Stripping tool, for cables and conductors (especially for cables protected against short circuits and ground leakages) 1.5 - 6  $\rm mm^2$ , self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10  $\rm mm^2$  stranded/1.5  $\rm mm^2$  solid, replaceable stripping blade

### CRIMPFOX 6H - Crimping pliers

1212046 ID: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

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A 1,5 - 7 - Ferrule

3200263 ID:3200263



Ferrule, length: 7 mm, color: silver

### PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

ID:1430873

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

