

1080231

https://www.phoenixcontact.com/us/products/1080231

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Power connector, Power, 5-position, shielded, Plug straight M12, K, Push-lock spring connection, knurl material: Brass, nickel-plated, external cable diameter 8 mm ... 13 mm

Your advantages

- Time-saving Push-Lock connection: Tool-free connection and disconnection of conductors by opening the contact levers
- · Intuitive connection: Easy assignment of individual litz wires with color-coded and numerical identification of the contact levers
- · Integrated Push-in Technology: Wire rigid and pretreated conductors easily by means of simple, direct insertion
- Shock- and vibration-resistant connection: Proven spring-cage technology guarantees secure and reliable contacting
- · Increased protection against electric shock: PE connection to all metal components
- Safely shielded: Reliable 360° shield connection even under extreme mechanical strain

Commercial data

Item number	1080231
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF33
Product key	BF2CFP
GTIN	4055626802985
Weight per piece (including packing)	74.6 g
Weight per piece (excluding packing)	74.6 g
Customs tariff number	85366990
Country of origin	DE



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Technical data

Notes

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.	General	jeopardy if the bending forces are too high. Alleviate mechanical
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Mounting

Assembly instructions	The wires can be connected both with ferrules and without ferrules
Connection method	Push-lock spring connection

Product properties

Circular connector (cable-side)
Power
5
Power supply
1
yes
К
straight

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Dimensions

Dimensional drawing	20/1
Length	70 mm
External dimensions	
Outside diameter	8 mm 13 mm
Housing	
Diameter housing	23 mm
Material specifications	23 111111

Material specifications

Flammability rating according to UL 94	V0
Material of grip body	Brass, nickel-plated
Contact surface material	Au
Material for screw connection	Brass, nickel-plated



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Connection data

Conductor connection

Connection method	Push-lock spring connection
Connection cross section	1.5 mm² 1.5 mm²
	0.75 mm ² 2.5 mm ² (with ferrule)
	1.5 mm² 1.5 mm² (solid)
Connection cross section AWG	16 16 (without ferrule)
	18 14 (with ferrule)
Stripping length of the individual wire	10 mm
Tightening torque	0.6 Nm (M12 knurl)
	5 Nm (Pressure nut with connector housing)

Pin assignment

Contact Color (signal designation) Contact (optional)	1 = BK1
	2 = BK2
	3 = BK3
	4 = BK4
	PE = GNYE

Electrical properties

Rated surge voltage	6 kV
Nominal voltage U _N	690 V AC
Nominal current I _N	16 A (when using 2.5 mm² conductors)
	16 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	К

Cable/line

Signal type/category	Power
Stripping length of the individual wire	10 mm

Environmental and real-life conditions

Ambient conditions



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Degree of protection	IP65
Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)
Ambient temperature (accembly)	-5 °C 50 °C (Plug / socket)
Ambient temperature (assembly)	(
Standards and regulations	
	M12 connector

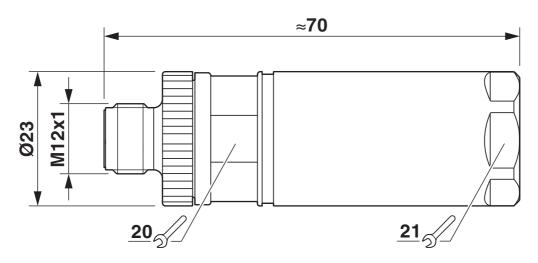


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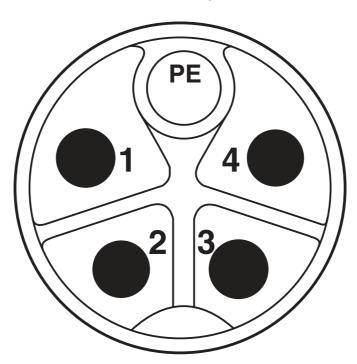
Drawings

Dimensional drawing



Plug, M12 x 1, straight, shielded

Schematic diagram

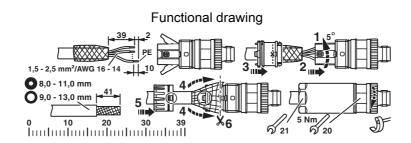


Pin assignment of M12 male connector, 4-pos.+PE, K-coded, view of pin side



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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1080231



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

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



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Accessories

AI 2,5 -10 BU - Ferrule

3202533

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Ferrule, sleeve length: 10 mm, length: 17 mm, color: blue

AI 1,5 -10 BK - Ferrule

3200195

https://www.phoenixcontact.com/us/products/3200195



Ferrule, sleeve length: 10 mm, length: 16 mm, color: black



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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

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



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SACC BIT M12-D23 - Tool

1202885

https://www.phoenixcontact.com/us/products/1202885

Nut for assembling M12 connectors for assembly with a knurl diameter of 23 mm, for 4 mm hexagonal drive



WIREFOX 2,5 - Stripping tool

1212368

https://www.phoenixcontact.com/us/products/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^2 stranded/1.5 mm^2 solid



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WIREFOX SAC - Stripping tool

1212623

https://www.phoenixcontact.com/us/products/1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from \emptyset of 4.4 to 7 mm, any stripping length

CRIMPFOX VARIO 4S - Crimping pliers

1108766

https://www.phoenixcontact.com/us/products/1108766



Crimping pliers, contact connection type: Insulated and uninsulated ferrules, min. cross section: $0.25~\text{mm}^2$, max. cross section: $4~\text{mm}^2$, compression: Square crimp, black/green



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CRIMPFOX CENTRUS 10S - Crimping pliers

1213154

https://www.phoenixcontact.com/us/products/1213154



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm^2 ... 10 mm^2 , also for TWIN ferrules up to 2 x 4 mm^2 , automatic cross section adjustment, lateral insertion, equipped with fall protection

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