1424657

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Connector, Universal, 4-position, unshielded, Plug straight M12, A, Push-lock spring connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 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

Commercial Data

Item number	1424657
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	BF2
Product Key	BF2CEA
Catalog Page	Page 19 (C-2-2019)
GTIN	4055626375847
Weight per Piece (including packing)	20.7 g
Weight per Piece (excluding packing)	20 g
Customs tariff number	85366990
Country of origin	DE

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Technical Data

Notes

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.
ounting	
Assembly instructions	The wires can be connected both with ferrules and without ferrules
Connection method	Push-lock spring connection
roduct properties	
Product type	Circular connector (cable-side)
Number of positions	4
Sensor type	Universal
No. of cable outlets	1
Shielded	no
Coding	A
Cable outlet	straight
Insulation characteristics	
Overvoltage category	

Dimensions

Flammability rating according to UL 94

Seal material

Dimensional drawing	
Length	60 mm
External dimensions	
Outside diameter	4 mm 8 mm
Housing	
Diameter housing	19 mm
Material specifications	
Color Handle area	black
Material	PBT
	PA 6

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Material of grip body	PA 6.6
Contact material	CuSn
Contact surface material	Ni/Au
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, 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)
	PBT: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL2, R26: HL3)

Connection data

Connection method	Push-lock spring connection
Connection cross section	0.14 mm ² 0.75 mm ² (without ferrule)
	0.08 mm ² 0.5 mm ² (with ferrule)
	0.14 mm² 0.75 mm² (solid)
Connection cross section AWG	26 18 (without ferrule)
	28 20 (with ferrule)
Stripping length of the individual wire	7 mm
Tightening torque	0.4 Nm (M12 knurl)
	0.4 Nm (Connector with coupling sleeve)
	1.5 Nm (Pressure nut with coupling sleeve)
in assignment	
Contact Color (signal designation) Contact (optional)	1 = BN
	2 = WH
	3 = BU

Electrical properties

Rated surge voltage	2.5 kV
Contact resistance	≤ 5 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	250 V AC
	250 V DC
Nominal current I _N	4 A (2 A when using 0.14 mm ² conductors)

4 = BK

Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100 (Quantity: 500 with Phoenix Contact mating connector)

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Connector

Connection 1	
Head design	Plug
Head cable outlet	straight
Head thread type	M12
Coding	A

Cable/line

Signal type/category	Universal
Stripping length of the individual wire	7 mm

Environmental and real-life conditions

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

Standards and regulations

Standards/regulations	PA 6.6: Fire protection in rail vehicles - requirement sets R22, R23, R24, 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)
	PBT: Fire protection in rail vehicles - requirement sets R22, R23, R24, and R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL2, R26: HL3)
112	
Standards/specifications	IEC 61076-2-101

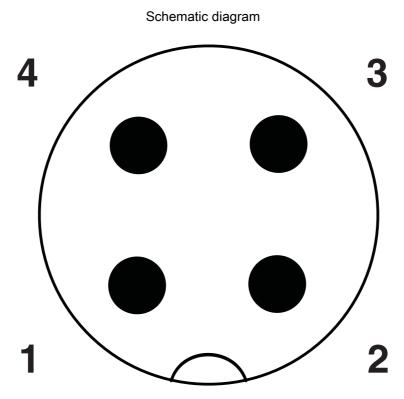
Standards/specifications	IEC 61076-2-101
Standards/specifications	EN 50155:2001



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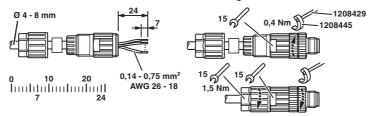
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Drawings



Pin assignment M12 plug, 4-pos., A-coded, view plug side

Functional drawing



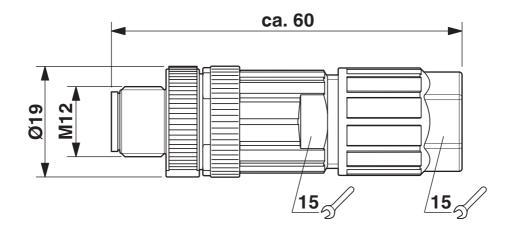




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Dimensional drawing



Plug, M12 x 1, straight

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Approvals

EAC	EAC Approval ID: RU C-DE.AI3	30.B.01102			
EAC	EAC Approval ID: RU C-DE.BL	08.B.00511			
	UL Listed Approval ID: E221474				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	4 A	-	26 - 18
	CUL Listed Approval ID: E221474				
		Nominal Voltage U _N	Nominal Current I _N	Cross Section AWG	Cross Section mm ²
		250 V	4 A	26 - 18	-

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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				





Environmental Product Compliance

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

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Accessories

TSD 04 SAC - Torque screwdriver

1208429 https://www.phoenixcontact.com/in/products/1208429



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

SACC BIT M12-D20 - Tool

1208445 https://www.phoenixcontact.com/in/products/1208445

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



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TSD-M 1,2NM - Torque screwdriver

1212224

https://www.phoenixcontact.com/in/products/1212224



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

TSD-M SAC-BIT ADAPTER - Adapter insert

1212600 https://www.phoenixcontact.com/in/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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PROT-M12 FS-PA-CHAIN - Sealing cap

1430873

https://www.phoenixcontact.com/in/products/1430873

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



SAC-4P-100,0-PUR/0,25 - Cable reel

1501692 https://www.phoenixcontact.com/in/products/1501692



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

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SAC-4P-100,0-PUR/0,34 - Cable reel

1501663

https://www.phoenixcontact.com/in/products/1501663



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 4-wire, color single wire: brown, white, blue, black, cable length: 100 m

WIREFOX 2,5 - Stripping tool

1212368 https://www.phoenixcontact.com/in/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 mm² stranded/1.5 mm² solid

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WIREFOX SAC - Stripping tool

1212623

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



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

Al 0,25- 6 YE - Ferrule

3203024 https://www.phoenixcontact.com/in/products/3203024



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

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A 0,25-7 - Ferrule

3202478

https://www.phoenixcontact.com/in/products/3202478



Ferrule, length: 7 mm, color: silver

A 0,34-7 - Ferrule

3009202 https://www.phoenixcontact.com/in/products/3009202



Ferrule, length: 7 mm, color: silver

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A 0,5 - 6 - Ferrule

3200218 https://www.phoenixcontact.com/in/products/3200218



Ferrule, length: 6 mm, color: silver

AI 0,5 - 6 WH - Ferrule

3200687 https://www.phoenixcontact.com/in/products/3200687



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

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CRIMPFOX 6H - Crimping pliers

1212046

https://www.phoenixcontact.com/in/products/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 mm² ... 6 mm², unlockable pressure lock, lateral entry

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PHOENIX CONTACT (I) Pvt. Ltd. A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420 info@phoenixcontact.co.in