1424658

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Connector, Universal, 5-position, shielded, Plug straight M12, coding: 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
- Safely shielded: Reliable 360° shield connection even under extreme mechanical strain

Commercial data

Item number	1424658
Packing unit	1 рс
Minimum order quantity	1 pc
Sales key	BF22
Product key	BF2CFA
Catalog page	Page 19 (C-2-2019)
GTIN	4055626375854
Weight per piece (including packing)	36.9 g
Weight per piece (excluding packing)	37.3 g
Customs tariff number	85366990
Country of origin	DE

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Technical data

Notes

Assembly note	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	
Assembly note	The wires can be connected both with ferrules and without ferrules
Product properties	
Product type	Circular connector (cable-side)
Sensor type	Universal
Number of positions	5
No. of cable outlets	1
Shielded	yes
Coding	A
Cable outlet	straight
Insulation characteristics	
Overvoltage category	II
Degree of pollution	3

Dimensions

Contact material

Dimensional drawing	
Length	60 mm
External dimensions	
Outside diameter	4 mm 8 mm
Housing	
Diameter housing	19 mm
Material specifications	
Material	TPE-U
	PA 6
Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	Zinc die-cast, nickel-plated

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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, 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)

Connection data

Conductor connection

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 mm ² 0.75 mm ² (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)
	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)

Pin assignment

Contact Color (signal designation) Contact (optional)	1 = BN
	2 = WH
	3 = BU
	4 = BK
	5 = GY

Electrical properties

Rated surge voltage	1.5 kV
Contact resistance	≤ 8 mΩ
Insulation resistance	≥ 100 MΩ
Nominal voltage U _N	48 V AC
	60 V DC
Nominal current I _N	4 A (2 A when using 0.14 mm ² conductors)

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 100

Connector

Connection 1	
Head design	Plug



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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

Testing	
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)
M12	
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Standard designation	Shock, vibration
Standards/specifications	EN 50155:2001



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Drawings



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

Dimensional drawing



Dimensional drawing

IPHŒNIX



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Functional drawing $0.4 \cdot 8 \text{ mm}$ 12 + 29 + 7 $0.14 \cdot 0.75 \text{ mm}^2$ 13 + 16 13 + 16 13 + 16 13 + 16 13 + 16 16 + 1212597 13 + 16 13 + 16 16 + 1212597 1208445 13 + 16 16 + 1212597 13 + 16 13 + 16 16 + 1212597 13 + 16 13 + 16 16 + 1212597 13 + 16 13 + 16 16 + 1212597 13 + 16 13 + 16 3 + 163 +

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 mm stick an additional shielding foil around the wire pack, screw the sleeve housing to the plug insert, screw the pressure nut tight.



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Approvals

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ERC	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
		60 V	4 A	-	26 - 18
B	cUL Listed Approval ID: E221474				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
		60 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 9.0	EC002635
UN	UNSPSC	
	UNSPSC 21.0	39121400

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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%

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PHOENIX CONTACT Ltd 8240 Parkhill Drive Milton, Ontario L9T 5V7 1-800-890-2820 cdinfo@phoenixcontact.ca