#### 1413994

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**PHŒNIX** CONTACT

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Connector, Universal, 4-position, halogen-free, shielded, Socket straight M12, coding: A, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 5 mm ... 9.7 mm

## Your advantages

- · Safe use in the field, thanks to a high degree of protection
- · Insulation displacement connection: innovative and time-saving assembly without stripping the single wire
- · Reliable signal transmission 360° shielding in environments with electromagnetic interference

## Commercial data

Item number	1413994
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF31
Product key	BF2CDA
Catalog page	Page 21 (C-2-2019)
GTIN	4055626013206
Weight per piece (including packing)	45 g
Weight per piece (excluding packing)	45 g
Customs tariff number	85366990
Country of origin	DE

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## Technical data

#### Notes

<b>NOTE:</b> 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.

#### Assembly instructions

If the conductor is to be reconnected, it must be cut off above the last contact point.

### Product properties

Product type	Circular connector (cable-side)
Sensor type	Universal
Number of positions	4
No. of cable outlets	1
Shielded	yes
Coding	A
Cable outlet	straight
Insulation characteristics	

Overvoltage category	II
Degree of pollution	3

### Dimensions

Contact surface material

Dimensional drawing	
Length	57 mm
Wrench size, union nut	15 mm
External dimensions Outside diameter	5 mm 9.7 mm
	3 mm 9.7 mm
Housing	
Diameter housing	19 mm
aterial specifications	
Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	Zinc die-cast, nickel-plated
Contact material	CuSn

Ni/Au



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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)
Wire insulation material	PVC / PE / PP / rubber

#### Connection data

Conductor connection	
Connection method	Insulation displacement connection
Connection cross section	0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (flexible)
	0.14 mm <sup>2</sup> 0.5 mm <sup>2</sup> (solid)
Connection cross section AWG	26 18 (flexible)
	26 20 (solid)
Tightening torque	5 Nm (Pressure nut)
Pin assignment	
Contact   Color (signal designation)   Contact (optional)	1 = BN
	2 = WH
	3 = BU
	4 = BK

### **Electrical properties**

Rated surge voltage	2.5 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	250 V AC
	250 V DC
Nominal current I <sub>N</sub>	4 A

### Mechanical properties

Mechanical data	
Insertion/withdrawal cycles	≥ 100

### Connector

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

### Cable/line

Signal type/category	Universal

Environmental and real-life conditions



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Degree of protection	IP65	
	IP67	
Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)	
Ambient temperature (assembly)	-5 °C 50 °C	

### 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)
12	
Standard designation	M12 connector
Standards/specifications	according to IEC 61076-2-101
Standard designation	Shock, vibration

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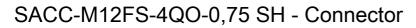
## Classifications

#### 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

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

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