

1413991

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Connector, Universal, 5-position, halogen-free, shielded, Plug 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	1413991
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AF2CDA
Product key	AF2CDA
Catalog page	Page 201 (C-6-2019)
GTIN	4055626013176
Weight per piece (including packing)	39.7 g
Weight per piece (excluding packing)	39.7 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 routing cables, since the degree of protection may be at risk if the bending forces are too high. Reduce mechanical loads upstream of the connector, e.g., by using cable ties.
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#### Mounting

Assembly note	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	5
No. of cable outlets	1
Shielded	yes
Coding	A
Cable outlet	straight

#### Insulation characteristics

Overvoltage category	II
Degree of pollution	3

#### **Dimensions**

Dimensional drawing	15 2
Length	58 mm
Wrench size, union nut	15 mm
External dimensions	
Outside diameter	5 mm 9.7 mm

### Housing

Diameter housing	19 mm
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#### Material specifications

Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	Zinc die-cast, nickel-plated
Contact material	CuSn
Contact surface material	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
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

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

#### Electrical properties

Rated surge voltage	0.8 kV
Insulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A

#### Mechanical properties

#### Mechanical data

Insertion/withdrawal cycles	≥ 100

#### Connector

#### Connection 1

Head design	Plug
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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#### Ambient conditions

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

#### Standards and regulations

#### Testing

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

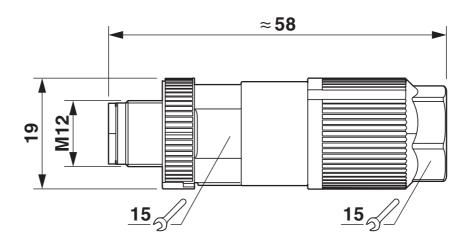
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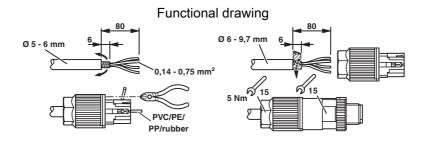


### Drawings

#### Dimensional drawing



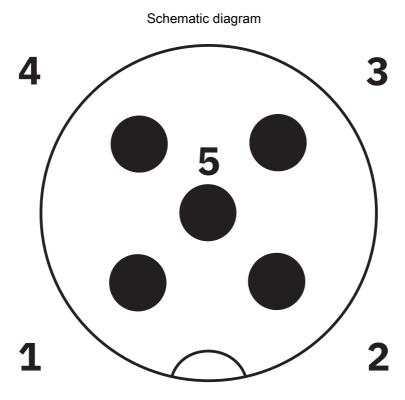
Plug, M12 x 1, straight, shielded





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



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### Classifications

	ECLASS-13.0	27440116
ETIM		
	ETIM 9.0	EC002635
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%
EF3.0 Climate Change	
CO2e kg	0.866 kg CO2e

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