

https://www.phoenixcontact.com/us/products/1641785

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Connector, Universal, 4-position, Plug straight M12, coding: A, Insulation displacement connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 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

# Commercial data

Item number	1641785
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF31
Product key	BF2CCA
Catalog page	Page 20 (C-2-2019)
GTIN	4017918921866
Weight per piece (including packing)	15.1 g
Weight per piece (excluding packing)	14.7 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	AWG 18 wire cross section upon request
roduct properties	
Product type	Circular connector (cable-side)
Sensor type	Universal
Number of positions	4
No. of cable outlets	1
Shielded	no
Coding	A
Cable outlet	straight
Insulation characteristics	
Overvoltage category	III
Degree of pollution	3

# Dimensions

Dimensional drawing	
Length	55 mm
Wrench size, union nut	15 mm
Wrench size, counter nut	15 mm
External dimensions Outside diameter Housing	4 mm 8 mm
Diameter housing	18.4 mm
aterial specifications	
Flammability rating according to UL 94	V0
Seal material	NBR
Material of grip body	PA 6
Contact material	CuSn



#### 1641785

https://www.phoenixcontact.com/us/products/1641785

Contact surface material	Ni/Au
Contact carrier material	TPU
Material for screw connection	Zinc die-cast, nickel-plated
Wire insulation material	PVC / PE / PP / rubber

## Connection data

Conductor connection	
Connection method	Insulation displacement connection
Connection cross section	0.34 mm <sup>2</sup> 0.75 mm <sup>2</sup>
Connection cross section AWG	22 18
Tightening torque	0.4 Nm (M12 knurl)
	1.5 Nm (Pressure nut)

#### Pin assignment

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

# **Electrical properties**

Rated surge voltage	4 kV
Contact resistance	≤ 5 mΩ
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
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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
External cable diameter ()	4 mm 8 mm

#### Environmental and real-life conditions

#### 1641785

https://www.phoenixcontact.com/us/products/1641785



Ambient conditions

Degree of protection	IP65
	IP67
Ambient temperature (operation)	-25 °C 80 °C (Plug / socket)
Ambient temperature (assembly)	-5 °C 50 °C (During assembly)

## Standards and regulations

M12	
Standard designation	M12 connector
Standards/specifications	according to IEC 61076-2-101

1641785

https://www.phoenixcontact.com/us/products/1641785



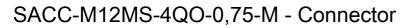
# Classifications

## ECLASS

ECLASS-11.0	27440102
ECLASS-12.0	27440116
ECLASS-13.0	27440116

## ETIM

	ETIM 9.0	EC002635		
UNSPSC				
	UNSPSC 21.0	39121400		



1641785

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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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Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com