

1438165

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Connector, Universal, 4-position, shielded, Plug straight M12 Push-Pull, 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
- Save time, thanks to installation with push-pull fast locking

#### Commercial data

Item number	1438165
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	AF2CFA
Product key	AF2CFA
GTIN	4063151815899
Weight per piece (including packing)	32.6 g
Weight per piece (excluding packing)	22.22 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.

### 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**

#### External dimensions

Outside diameter	4 mm 8 mm
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### Material specifications

Material	TPE-U (Clamping cage, weight: 1.1 g)
	PA 6 (Actuation lever)
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
Contact carrier material	PA 6.6
Material for screw connection	Zinc die-cast, nickel-plated
Standards/regulations	PA 6.6
	PA 6

### Connection data

#### Conductor connection

Connection method	Push-lock spring connection
Connection cross section	0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (without ferrule)
	0.08 mm <sup>2</sup> 0.5 mm <sup>2</sup> (with ferrule)
	0.14 mm <sup>2</sup> 0.75 mm <sup>2</sup> (solid)



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Testing

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Connection cross section AWG	26 18 (without ferrule)
	28 20 (with ferrule)
Stripping length of the individual wire	7 mm
Fightening torque	0.8 Nm (Connector with coupling sleeve)
	3 Nm (Pressure nut with coupling sleeve)
assignment	
Contact   Color (signal designation)   Contact (optional)	1 = BN
	2 = WH
	3 = BU
	4 = BK
rical properties	
Rated surge voltage	1.5 kV
Contact resistance	≤ 8 mΩ
nsulation resistance	≥ 100 MΩ
Nominal voltage U <sub>N</sub>	48 V AC
	60 V DC
Nominal current I <sub>N</sub>	4 A (2 A when using 0.14 mm² conductors)
nanical properties	
chanical data	> 100
	≥ 100
chanical data	≥ 100
chanical data nsertion/withdrawal cycles	≥ 100
chanical data nsertion/withdrawal cycles sector	≥ 100 Plug
chanical data nsertion/withdrawal cycles nector nnection 1	
chanical data nsertion/withdrawal cycles nector nnection 1 Head design	Plug
chanical data  nsertion/withdrawal cycles  nector  nnection 1  Head design  Head cable outlet	Plug straight
chanical data nsertion/withdrawal cycles nector nnection 1 Head design Head cable outlet Head thread type	Plug straight M12
chanical data nsertion/withdrawal cycles nector nnection 1 Head design Head cable outlet Head thread type Head locking type	Plug straight M12 Push-Pull
chanical data nsertion/withdrawal cycles nector nnection 1 Head design Head cable outlet Head thread type Head locking type Coding	Plug straight M12 Push-Pull
chanical data nsertion/withdrawal cycles nector nnection 1 Head design Head cable outlet Head thread type Head locking type Coding e/line	Plug straight M12 Push-Pull A
chanical data nsertion/withdrawal cycles  nector nnection 1 Head design Head cable outlet Head thread type Head locking type Coding e/line Signal type/category	Plug straight M12 Push-Pull A
chanical data Insertion/withdrawal cycles  Ilector Innection 1 Ilead design Ilead cable outlet Ilead thread type Ilead locking	Plug straight M12 Push-Pull A



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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)
Standard designation	M12 connector
Standards/specifications	IEC 61076-2-101
Standard designation	Shock, vibration
Standards/specifications	EN 50155 Cat. 1B
Standard designation	M12-Push-Pull
Standards/specifications	IEC 61076-2-010

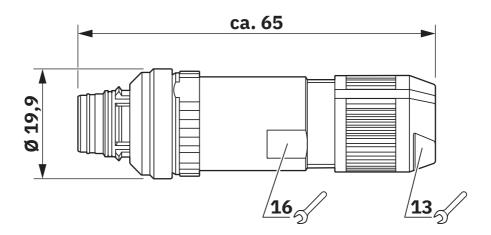


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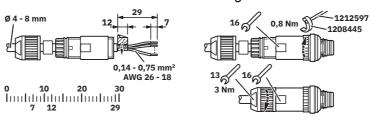
## **Drawings**

### Dimensional drawing



### Dimensional drawing

### Functional drawing



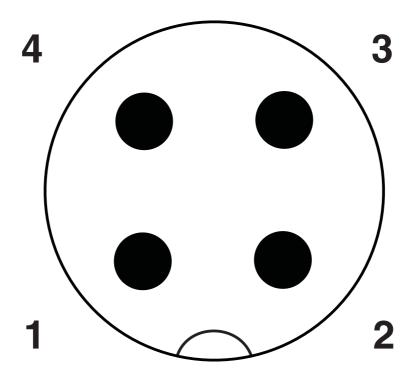
Functional drawing



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## Schematic diagram



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



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# Classifications

ETIM 9.0

### **ECLASS**

	ECLASS-13.0	27440116
ΕT	ТІМ	

EC002635



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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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