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Connector, Universal, 5-position, unshielded, Socket straight M12, Coding: A, Push-in connection, knurl material: Zinc die-cast, nickel-plated, external cable diameter 4 mm ... 8 mm

#### Your advantages

- Reliable and quick connection of electric cables
- Flexible signal and data cabling



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 055626 374994
GTIN	4055626374994
Weight per Piece (excluding packing)	20.000 g
Custom tariff number	85366990
Country of origin	Germany

#### Technical data

#### Dimensions

Diameter housing	19 mm
Length	58 mm
External cable diameter	4 mm 8 mm
Stripping length of the sheath	24 mm
Stripping length of the individual wire	7 mm



# Technical data

#### Ambient conditions

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

#### General

Mumber of positions   5   5	Note  Rated current at 40°C  Rated voltage	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.  4 A (2 A when using 0.14 mm² conductors)		
Color handle area         black           Insulation resistance         ≥ 100 MΩ           Coding         A - standard           Standards/regulations         M12 connector IEC 61076-2-101           Signal type/category         Universal           Status display         No           Overvoltage category         II           Degree of pollution         3           Connection method         Push-in connection           Conductor cross section         0.14 mm² 0.75 mm² (without ferrule)           0.08 mm² 0.5 mm² (with ferrule)         0.14 mm² 0.75 mm² (solid)           Conductor cross section AWG         26 18 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           Universal         1.5 Nm (Pressure nut with coupling sleeve)		60 V DC		
Insulation resistance   ≥ 100 MΩ   A - standard	Number of positions	5		
Coding         A - standard           Standards/regulations         M12 connector IEC 61076-2-101           Shock, vibration EN 50155:2001         Shock, vibration EN 50155:2001           Signal type/category         Universal           Status display         No           Overvoltage category         II           Degree of pollution         3           Connection method         Push-in connection           Conductor cross section         0.14 mm² 0.75 mm² (without ferrule)           0.08 mm² 0.5 mm² (with ferrule)         0.14 mm² 0.75 mm² (solid)           Conductor cross section AWG         26 18 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           0.4 Nm (Connector with coupling sleeve)           1.5 Nm (Pressure nut with coupling sleeve)	Color handle area	black		
Standards/regulations         M12 connector IEC 61076-2-101           Shock, vibration EN 50155:2001         Shock, vibration EN 50155:2001           Signal type/category         Universal           Status display         No           Overvoltage category         II           Degree of pollution         3           Connection method         Push-in connection           Conductor cross section         0.14 mm² 0.75 mm² (without ferrule)           0.08 mm² 0.5 mm² (with ferrule)         0.14 mm² 0.75 mm² (solid)           Conductor cross section AWG         26 18 (without ferrule)           28 20 (with ferrule)         28 20 (with ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           0.4 Nm (Connector with coupling sleeve)           1.5 Nm (Pressure nut with coupling sleeve)	Insulation resistance	≥ 100 MΩ		
Shock, vibration EN 50155:2001  Signal type/category Universal  Status display No Overvoltage category II Degree of pollution 3 Connection method Push-in connection Conductor cross section 0.14 mm² 0.75 mm² (without ferrule) 0.08 mm² 0.5 mm² (with ferrule) 0.14 mm² 0.75 mm² (solid)  Conductor cross section AWG 26 18 (without ferrule)  Insertion/withdrawal cycles 2100  Torque 0.4 Nm (M12 knurl) 0.4 Nm (Connector with coupling sleeve) 1.5 Nm (Pressure nut with coupling sleeve)	Coding	A - standard		
Signal type/category       Universal         Status display       No         Overvoltage category       II         Degree of pollution       3         Connection method       Push-in connection         Conductor cross section       0.14 mm² 0.75 mm² (without ferrule)         0.08 mm² 0.5 mm² (with ferrule)       0.14 mm² 0.75 mm² (solid)         Conductor cross section AWG       26 18 (without ferrule)         28 20 (with ferrule)       28 20 (with ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         0.4 Nm (Connector with coupling sleeve)       1.5 Nm (Pressure nut with coupling sleeve)	Standards/regulations	M12 connector IEC 61076-2-101		
Status display  Overvoltage category  II  Degree of pollution  Connection method  Push-in connection  Conductor cross section  0.14 mm² 0.75 mm² (without ferrule)  0.08 mm² 0.5 mm² (with ferrule)  0.14 mm² 0.75 mm² (solid)  Conductor cross section AWG  26 18 (without ferrule)  28 20 (with ferrule)  Insertion/withdrawal cycles  Torque  0.4 Nm (M12 knurl)  0.4 Nm (Connector with coupling sleeve)		Shock, vibration EN 50155:2001		
Overvoltage category         II           Degree of pollution         3           Connection method         Push-in connection           Conductor cross section         0.14 mm² 0.75 mm² (without ferrule)           0.08 mm² 0.5 mm² (with ferrule)         0.14 mm² 0.75 mm² (solid)           Conductor cross section AWG         26 18 (without ferrule)           28 20 (with ferrule)         28 20 (with ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           0.4 Nm (Connector with coupling sleeve)         1.5 Nm (Pressure nut with coupling sleeve)	Signal type/category	Universal		
Degree of pollution         3           Connection method         Push-in connection           Conductor cross section         0.14 mm² 0.75 mm² (without ferrule)           0.08 mm² 0.5 mm² (with ferrule)         0.14 mm² 0.75 mm² (solid)           Conductor cross section AWG         26 18 (without ferrule)           28 20 (with ferrule)         28 20 (with ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           0.4 Nm (Connector with coupling sleeve)         1.5 Nm (Pressure nut with coupling sleeve)	Status display	No		
Connection method  Push-in connection  O.14 mm² 0.75 mm² (without ferrule)  O.08 mm² 0.5 mm² (with ferrule)  O.14 mm² 0.75 mm² (solid)  Conductor cross section AWG  Conductor cross section AWG  26 18 (without ferrule)  28 20 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  O.4 Nm (M12 knurl)  O.4 Nm (Connector with coupling sleeve)  1.5 Nm (Pressure nut with coupling sleeve)	Overvoltage category	II		
Conductor cross section       0.14 mm² 0.75 mm² (without ferrule)         0.08 mm² 0.5 mm² (with ferrule)       0.14 mm² 0.75 mm² (solid)         Conductor cross section AWG       26 18 (without ferrule)         28 20 (with ferrule)       28 20 (with ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         0.4 Nm (Connector with coupling sleeve)       1.5 Nm (Pressure nut with coupling sleeve)	Degree of pollution	3		
0.08 mm² 0.5 mm² (with ferrule)   0.14 mm² 0.75 mm² (solid)   Conductor cross section AWG   26 18 (without ferrule)   28 20 (with ferrule)   Insertion/withdrawal cycles   ≥ 100   Torque   0.4 Nm (M12 knurl)   0.4 Nm (Connector with coupling sleeve)   1.5 Nm (Pressure nut with coupling sleeve)	Connection method	Push-in connection		
0.14 mm² 0.75 mm² (solid)         Conductor cross section AWG       26 18 (without ferrule)         28 20 (with ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         0.4 Nm (Connector with coupling sleeve)         1.5 Nm (Pressure nut with coupling sleeve)	Conductor cross section	0.14 mm² 0.75 mm² (without ferrule)		
Conductor cross section AWG  26 18 (without ferrule)  28 20 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  0.4 Nm (Connector with coupling sleeve)  1.5 Nm (Pressure nut with coupling sleeve)		0.08 mm² 0.5 mm² (with ferrule)		
28 20 (with ferrule)   Insertion/withdrawal cycles   ≥ 100     Torque   0.4 Nm (M12 knurl)     0.4 Nm (Connector with coupling sleeve)     1.5 Nm (Pressure nut with coupling sleeve)		0.14 mm² 0.75 mm² (solid)		
Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         0.4 Nm (Connector with coupling sleeve)         1.5 Nm (Pressure nut with coupling sleeve)	Conductor cross section AWG	26 18 (without ferrule)		
Torque 0.4 Nm (M12 knurl) 0.4 Nm (Connector with coupling sleeve) 1.5 Nm (Pressure nut with coupling sleeve)		28 20 (with ferrule)		
0.4 Nm (Connector with coupling sleeve) 1.5 Nm (Pressure nut with coupling sleeve)	Insertion/withdrawal cycles	≥ 100		
1.5 Nm (Pressure nut with coupling sleeve)	Torque	0.4 Nm (M12 knurl)		
		0.4 Nm (Connector with coupling sleeve)		
Assembly instructions  The wires can be connected both with ferrules and without ferrules		1.5 Nm (Pressure nut with coupling sleeve)		
	Assembly instructions	The wires can be connected both with ferrules and without ferrules		

#### Material

Flammability rating according to UL 94	V0
Contact material	CuSn
Contact surface material	Ni/Au



### Technical data

#### Material

Contact carrier material	PA 6.6	
Material of grip body	PA 6.6	
Material, knurls	Zinc die-cast, nickel-plated	
Sealing material	NBR	
Additional material specifications	PBT (Pressure nut, weight: 2.36 g)	
	PA 6 (Actuation lever)	
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)	
	PA 6: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)	
	PBT: Fire protection in rail vehicles - requirement sets R22, R23, R24, at R26 acc. to DIN EN 45545-2 (Risk level HL1 - HL2, R26: HL3)	

### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
	Shock, vibration EN 50155:2001
Flammability rating according to UL 94	V0
Standards/regulations	acc. to DIN EN 45545-2

### **Environmental Product Compliance**

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

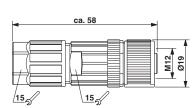
# Drawings

### Schematic diagram



Pin assignment M12 socket, 5-pos., A-coded, socket side view

### Dimensional drawing



M12-SPEEDCON socket, straight

## Classifications

#### eCl@ss

eCl@ss 10.0.1	27440102



## Classifications

### eCl@ss

eCl@ss 11.0	27440102
eCl@ss 5.1	27143423
eCl@ss 6.0	27279200
eCl@ss 7.0	27440104
eCl@ss 8.0	27440104
eCl@ss 9.0	27440102

#### **ETIM**

ETIM 5.0	EC002635
ETIM 6.0	EC002635
ETIM 7.0	EC002635

# Approvals

Approvals

Approvals

EAC / UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

### Approval details

EAC RU C-DE.AI30.B.01102

UL Listed	LISTED	http://database.ul.co	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	
Nominal voltage UN			250 V	
Nominal current IN			4 A	
mm²/AWG/kcmil			26-18	



## Approvals

cUL Listed	CUL	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E221474		E221474
Nominal voltage UN			250 V	
Nominal current IN			4 A	
mm²/AWG/kcmil			26-18	

EAC	ERE	RU C- DE.BL08.B.00511
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cULus Listed



#### Accessories

#### Accessories

Cable by the meter

Cable reel - SAC-5P-100,0-PUR/0,34 - 1501676



By the meter, Cable reel, PUR halogen-free, black-gray RAL 7021, 5-wire, color single wire: brown, white, blue, black, green-yellow, cable length: 100 m

#### Cable end sleeve

Ferrule - AI 0,25- 6 YE - 3203024



Ferrule, sleeve length: 6 mm, length: 10.5 mm, color: yellow



#### Accessories

Ferrule - A 0,25-7 - 3202478



Ferrule, length: 7 mm, color: silver

Ferrule - A 0,34-7 - 3009202



Ferrule, length: 7 mm, color: silver

Ferrule - A 0,5 - 6 - 3200218



Ferrule, length: 6 mm, color: silver

Ferrule - AI 0,5 - 6 WH - 3200687



Ferrule, sleeve length: 6 mm, length: 12 mm, color: white

#### Crimping tool

Crimping pliers - CRIMPFOX 6H - 1212046



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.14 mm<sup>2</sup> ... 6 mm<sup>2</sup>, unlockable pressure lock, lateral entry



#### Accessories

Plug for cable screw gland

Screw plug - PROT-M12 MS-PA-CHAIN - 1430899

M12 sealing cap with fixing band, for sensor cables, for free M12 sockets



#### Screwdriver tools

Tool - SACC BIT M12-D20 - 1208445



Nut for assembling M12 connectors for assembly with a knurl diameter of 20 mm, for 4 mm hexagonal drive

#### Adapter insert - TSD-M SAC-BIT ADAPTER - 1212600



Adapter bit for TSD-M...torque tools, E6.3-1/4" drive with 4 mm hexagon to accommodate SAC bits

#### Stripping tool

Stripping tool - WIREFOX 2,5 - 1212368



Stripping tool, for conductors and cables with a conductor cross section from 0.08 to 2.5 mm, self-adjusting, stripping length adjustable up to 15 mm, cutting capacity up to 6 mm² stranded/1.5 mm² solid



#### Accessories

Stripping tool - WIREFOX SAC - 1212623



Stripping pliers, for halogen-free sensor/actuator cables (SAC cables), with PUR and PVC insulation, from Ø of 4.4 to 7 mm, any stripping length

#### Torque tool

Torque screwdriver - TSD 04 SAC - 1208429



Torque screwdriver, with preset torque of 0.4 Nm and 4 mm hexagonal drive for M12 connectors

Torque screwdriver - TSD-M 1,2NM - 1212224



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 0.3 - 1.2 Nm

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