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Power connectors, Power, 4-position, unshielded, Socket straight M12, Coding: T, Screw connection, knurl material: Zinc die-cast, nickel-plated, cable gland Pg11, external cable diameter 8 mm ... 10 mm, For direct current up to 12 A/63 V

#### Your advantages

- Safe use in the field, thanks to a high degree of protection
- Screw connection: proven connection technology for a large selection of different conductors



## **Key Commercial Data**

Packing unit	1 pc
GTIN	4 046356 707756
GTIN	4046356707756
Weight per Piece (excluding packing)	20.000 g
Custom tariff number	85366990
Country of origin	Germany

#### Technical data

#### **Dimensions**

Wrench size, union nut	19 mm
Diameter housing	20 mm
Length	60.4 mm
External cable diameter	8 mm 10 mm
Stripping length of the sheath	20 mm



# Technical data

#### Dimensions

Stripping length of the individual wire	5 mm		
Ambient conditions			
Ambient temperature (operation)	-40 °C 85 °C (Plug / socket)		
Degree of protection	IP67		
General			
Note	Strip 22 mm off the cable sheath, strip 7 mm off the conductor insulation, crimp the ferrule, then shorten this to 5 mm. Length of conductor with shortened ferrule: 20 mm. Connect conductors and tighten the mounting screws with 0.2 Nm.		

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.         Rated current at 40°C       12 A (at 40 °C)         Rated voltage       63 ∨ DC         Number of positions       4         Color handle area       black         Insulation resistance       > 10 GΩ         Coding       T power         Standards/regulations       M12 connector IEC 61076-2-111         Signal type/category       Power         Power       Status display         Overvoltage category       III         Degree of pollution       3         Connection method       Screw connection         Conductor cross section       0.75 mm² . 1.5 mm² (without ferrule)         Conductor cross section AWG       1814 (without ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurt)         Insertion/withdrawal cycles       ≥ 100         A Sembly instructions       The wires can be connected both with ferrules and without ferrules	Note	Strip 22 mm off the cable sheath, strip 7 mm off the conductor insulation, crimp the ferrule, then shorten this to 5 mm. Length of conductor with shortened ferrule: 20 mm. Connect conductors and tighten the mounting screws with 0.2 Nm.
Rated voltage         63 V DC           Number of positions         4           Color handle area         black           Insulation resistance         > 10 GQ           Coding         T power           Standards/regulations         M12 connector IEC 61076-2-111           Signal type/category         Power           Status display         No           Overvoltage category         III           Degree of pollution         3           Connection method         Screw connection           Conductor cross section         0.75 mm² 1.5 mm² (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           1.5 Nm 2 Nm (Pressure screw with sleeve housing)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)           0.2 Nm (Screw terminal blocks)         0.2 Nm (Screw terminal blocks)		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
Rated voltage         63 V DC           Number of positions         4           Color handle area         black           Insulation resistance         > 10 GΩ           Coding         T power           Standards/regulations         M12 connector IEC 61076-2-111           Signal type/category         Power           Status display         No           Overvoltage category         III           Degree of pollution         3           Connection method         Screw connection           Conductor cross section         0.75 mm² 1.5 mm² (with derrule)           Conductor cross section AWG         18 14 (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           Insertion/with sleeve housing as far it will go)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)           Conductor cross tection twill blocks         0.2 Nm (Screw terminal blocks)	Rated current at 40°C	12 A (when using 1.5 mm² conductors)
Number of positions         4           Color handle area         black           Insulation resistance         > 10 GΩ           Coding         T power           Standards/regulations         M12 connector IEC 61076-2-111           Signal type/category         Power           Status display         No           Overvoltage category         III           Degree of pollution         3           Connection method         Screw connection           Conductor cross section         0.75 mm² 1.5 mm² (with terrule)           Conductor cross section         0.75 mm² 2.5 mm² (solid)           Conductor cross section AWG         18 14 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           Insertion/with sleeve housing as far it will go)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)           Conductor cross section twill blocks         0.2 Nm (Screw terminal blocks)		12 A (at 40 °C)
Color handle area       black         Insulation resistance       > 10 GΩ         Coding       T power         Standards/regulations       M12 connector IEC 61076-2-111         Signal type/category       Power         Status display       No         Overvoltage category       III         Degree of pollution       3         Connection method       Screw connection         Conductor cross section       0.75 mm² 1.5 mm² (without ferrule)         Conductor cross section AWG       18 14 (without ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         Insertion/with sleeve housing as far it will go)       0.2 Nm (Screw plug insert with sleeve housing as far it will go)         0.2 Nm (Screw terminal blocks)	Rated voltage	63 V DC
Topus	Number of positions	4
Coding         T power           Standards/regulations         M12 connector IEC 61076-2-111           Signal type/category         Power           Status display         No           Overvoltage category         III           Degree of pollution         3           Connection method         Screw connection           Conductor cross section         0.75 mm² 1.5 mm² (with terrule)           Conductor cross section AWG         18 14 (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Insertion/withdrawal cycles          ≥ 100           Torque         0.4 Nm (M12 knurl)           Insertion/with sleeve housing as far it will go)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)           Under the properties of the properti	Color handle area	black
Standards/regulations         M12 connector IEC 61076-2-111           Signal type/category         Power           Status display         No           Overvoltage category         III           Degree of pollution         3           Connection method         Screw connection           Conductor cross section         0.75 mm² 1.5 mm² (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           Insertion/with sleeve housing)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)           0.2 Nm (Screw terminal blocks)	Insulation resistance	> 10 GΩ
Signal type/category         Power           Status display         No           Overvoltage category         III           Degree of pollution         3           Connection method         Screw connection           Conductor cross section         0.75 mm² 1.5 mm² (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Conductor cross section AWG         18 14 (without ferrule)           Insertion/withdrawal cycles         ≥ 100           Torque         0.4 Nm (M12 knurl)           1.5 Nm 2 Nm (Pressure screw with sleeve housing)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)           0.2 Nm (Screw terminal blocks)	Coding	T power
Status display       No         Overvoltage category       III         Degree of pollution       3         Connection method       Screw connection         Conductor cross section       0.75 mm² 1.5 mm² (without ferrule)         0.75 mm² 1.5 mm² (with ferrule)         0.75 mm² 2.5 mm² (solid)         Conductor cross section AWG       18 14 (without ferrule)         18 16 (with ferrule)         18 16 (with ferrule)         18 16 (with ferrule)         15 Nm 2 Nm (Pressure screw with sleeve housing)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)         0.2 Nm (Screw terminal blocks)	Standards/regulations	M12 connector IEC 61076-2-111
Status display       No         Overvoltage category       III         Degree of pollution       3         Connection method       Screw connection         Conductor cross section       0.75 mm² 1.5 mm² (with out ferrule)         0.75 mm² 1.5 mm² (with ferrule)         0.75 mm² 2.5 mm² (solid)         Conductor cross section AWG       18 14 (without ferrule)         18 16 (with ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         1.5 Nm 2 Nm (Pressure screw with sleeve housing)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)         0.2 Nm (Screw terminal blocks)	Signal type/category	Power
Overvoltage category       III         Degree of pollution       3         Connection method       Screw connection         Conductor cross section       0.75 mm² 1.5 mm² (without ferrule)         0.75 mm² 1.5 mm² (with ferrule)       0.75 mm² 2.5 mm² (solid)         Conductor cross section AWG       18 14 (without ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         1.5 Nm 2 Nm (Pressure screw with sleeve housing)       0.4 Nm (Screw plug insert with sleeve housing as far it will go)         0.2 Nm (Screw terminal blocks)       0.2 Nm (Screw terminal blocks)		Power
Degree of pollution       3         Connection method       Screw connection         Conductor cross section       0.75 mm² 1.5 mm² (without ferrule)         0.75 mm² 1.5 mm² (with ferrule)         0.75 mm² 2.5 mm² (solid)         Conductor cross section AWG       18 14 (without ferrule)         18 16 (with ferrule)         Insertion/withdrawal cycles       ≥ 100         Torque       0.4 Nm (M12 knurl)         1.5 Nm 2 Nm (Pressure screw with sleeve housing)         0.4 Nm (Screw plug insert with sleeve housing as far it will go)         0.2 Nm (Screw terminal blocks)	Status display	No
Connection method  Conductor cross section  0.75 mm² 1.5 mm² (without ferrule)  0.75 mm² 2.5 mm² (with ferrule)  0.75 mm² 2.5 mm² (solid)  Conductor cross section AWG  18 14 (without ferrule)  18 16 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Overvoltage category	III
Conductor cross section  0.75 mm² 1.5 mm² (without ferrule)  0.75 mm² 1.5 mm² (with ferrule)  0.75 mm² 2.5 mm² (solid)  Conductor cross section AWG  18 14 (without ferrule)  18 16 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Degree of pollution	3
0.75 mm² 1.5 mm² (with ferrule)  0.75 mm² 2.5 mm² (solid)  Conductor cross section AWG  18 14 (without ferrule)  18 16 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Connection method	Screw connection
0.75 mm² 2.5 mm² (solid)  Conductor cross section AWG  18 14 (without ferrule)  18 16 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Conductor cross section	0.75 mm <sup>2</sup> 1.5 mm <sup>2</sup> (without ferrule)
Conductor cross section AWG  18 14 (without ferrule)  18 16 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)		0.75 mm <sup>2</sup> 1.5 mm <sup>2</sup> (with ferrule)
18 16 (with ferrule)  Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)		0.75 mm² 2.5 mm² (solid)
Insertion/withdrawal cycles  ≥ 100  Torque  0.4 Nm (M12 knurl)  1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Conductor cross section AWG	18 14 (without ferrule)
Torque 0.4 Nm (M12 knurl) 1.5 Nm 2 Nm (Pressure screw with sleeve housing) 0.4 Nm (Screw plug insert with sleeve housing as far it will go) 0.2 Nm (Screw terminal blocks)		18 16 (with ferrule)
1.5 Nm 2 Nm (Pressure screw with sleeve housing)  0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Insertion/withdrawal cycles	≥ 100
0.4 Nm (Screw plug insert with sleeve housing as far it will go)  0.2 Nm (Screw terminal blocks)	Torque	0.4 Nm (M12 knurl)
0.2 Nm (Screw terminal blocks)		1.5 Nm 2 Nm (Pressure screw with sleeve housing)
		0.4 Nm (Screw plug insert with sleeve housing as far it will go)
Assembly instructions  The wires can be connected both with ferrules and without ferrules		0.2 Nm (Screw terminal blocks)
	Assembly instructions	The wires can be connected both with ferrules and without ferrules



# Technical data

#### Material

Flammability rating according to UL 94	V0
Contact material	CuZn
Contact surface material	Au
Contact carrier material	PA
Material of grip body	PA
Material, knurls	Zinc die-cast, nickel-plated
Sealing material	Viton (M12 socket)
	NBR (Cable clamping)

## Standards and Regulations

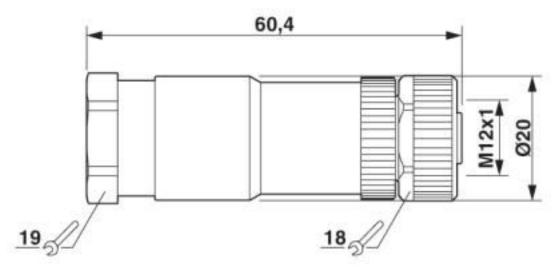
Standards/specifications	M12 connector IEC 61076-2-111
Flammability rating according to UL 94	V0

## **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

# Drawings

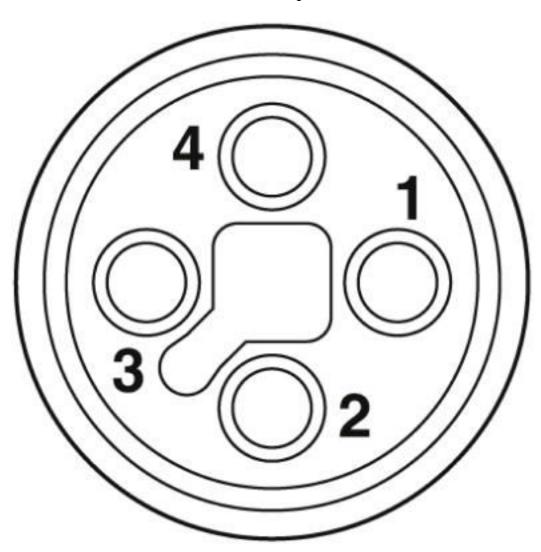
## Dimensional drawing



M12 x 1 socket, straight







Pin assignment of M12 socket, 4-pos., T-coded, socket side view

# Classifications

## eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700



# Classifications

## eCl@ss

eCl@ss 6.0	27279200
eCl@ss 7.0	27440104
eCl@ss 8.0	27440104
eCl@ss 9.0	27440102

## **ETIM**

ETIM 2.0	EC001121
ETIM 3.0	EC002062
ETIM 4.0	EC002062
ETIM 5.0	EC002062
ETIM 6.0	EC002062

## **UNSPSC**

UNSPSC 6.01	31251501
UNSPSC 7.0901	31251501
UNSPSC 11	31251501
UNSPSC 12.01	31251501
UNSPSC 13.2	39121413
UNSPSC 18.0	39121413
UNSPSC 19.0	39121413
UNSPSC 20.0	39121413
UNSPSC 21.0	39121413

# Approvals

### Approvals

Approvals

UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details



# Approvals

UL Recognized	<i>7</i> .1	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN			60 V	
Nominal current IN			12 A	
mm²/AWG/kcmil			16	

cUL Recognized	. <b>7.1</b>	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm		FILE E 221474
Nominal voltage UN			60 V	
Nominal current IN			12 A	
mm²/AWG/kcmil			16	

#### Accessories

Accessories

Cable end sleeve

Ferrule - A 1,5 - 7 - 3200263



Ferrule, length: 7 mm, color: silver

#### 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

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

#### 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

#### Stripping tool

Stripping tool - WIREFOX 6SC - 1212158



Stripping tool, for cables and conductors (especially for cables protected against short circuits and ground leakages) 1.5 - 6 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

#### Torque tool



### Accessories

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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