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Sensor/actuator flush-type socket, 5-pos., M12, A-coded, front/screw mounting with M20 x 1.5 thread, with 0.5 m TPE litz wire, 5 x 0.34 mm<sup>2</sup>, brass version

#### Your advantages

- Pre-assembled with litz wires for immediate use
- ☑ Customer-specific assemblies and litz wire lengths available
- Sealed on the litz wire side for optimum leak-tightness
- For high transmission safety: shield connection to the housing with optional EMC nut

### RoHS

## Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 828512
GTIN	4046356828512

### Technical data

#### Dimensions

Length of cable	0.5 m
Ambient conditions	

Ambient temperature (operation)	-25 °C 85 °C (Plug / socket)
	-40 °C 85 °C (without mechanical actuation)
Degree of protection	IP67
	IP69K

#### General

	The electrical and mechanical data specified assume that the connector pair is correctly locked and mounted. If the connector is unlocked and if there is a danger of contamination, the connector must be sealed using a protective cap > IP54. Influences arising from litz wires, cables or PCB assembly must also be taken into consideration.
Rated current at 40°C	4 A



## Technical data

### General

Number of positions         5           Insulation resistance         > 100 MQ           Coding         A - standard           Status display         M12 connector IEC 61076-2-101           Status display         No           Overvoltage category         II           Degree of pollution         3           Connection method         Individual wires           Insertion/withdrawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1,5           Vaterial         V0           Contact surface material         CuZn           Contact surface material         CuZn           Contact surface material         PA 6.6           Stale         Sases           Scaling material         NBR           Cable         V12           Conductor cross section         0.34 mm <sup>3</sup> AVW signal line         22           Conductor subulation         12 mm ±0.07 mm           Thickness, insulation         121 mm ±0.07 mm           Thickness, insulation         121 mm           Wire colors         Brown, white, black, gray           Material conductor insulation         121 mm	Rated voltage	60 V
insulation resistance         > 100 MΩ           Coding         A - standard           Standards/regulations         M12 connector IEC 61076-2·101           Status display         No           Overvoltage category         II           Degree of pollution         3           Connection method         Individual wires           Insertion/withdrawal cycles         > 100           Tarque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1.5           Waterial         V0           Contact tarterial         CuZn           Contact tarterial         Au           Contact tarterial         Au           Contact tarterial         NBR           Cable         Sasa           Cable         V0           Cable type         TPE litz wire           Conductor cross section         0.34 mm <sup>*</sup> AVG signal line         22           Conductor structure signal line         7 × 0.25 mm           Corductor rosts section         0.24 mm           Wire colors         Brown, white, blue, black, gray           Wire colors         Brown, white, blue, black, gray           Wire colors         Moderial Cultz wires <tr< td=""><td>Rated surge voltage</td><td>1.5 kV</td></tr<>	Rated surge voltage	1.5 kV
CodingA - standardStandardsregulationsM12 connector IEC 81076-2-101Status displayNoOvervoltage categoryIIDegree of pollution3Connection methodIndividual wiresInsertion/withdrawal cycles> 100Torque3 Nm 4 Nm (Installation-side)Mounting typeFron mounting M20 x 1,5MaterialCuZnContact materialCuZnContact materialAuContact surface materialAuContact surface materialNBRCableStatus inCable22Conductor cross section0.34 mm²AWG signal line22Conductor structure signal line1.2 mm ±0.07 mmChristers, insulation1.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulationTPEStatus display cline2.2 mmConductor rissignal line2.2 mm ±0.07 mmConductor insulation1.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulation2.2 mm ±0.07 mmConductor insulation1.2 mm ±0.07 mmThickness, insulation3.2 mm ±0.07 mmThickness, insulation2.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulation1.2 mm ±0.07 mmThickness, insulation3.2 mm ±0.07 mm </td <td>Number of positions</td> <td>5</td>	Number of positions	5
Standards/regulations         M12 connector IEC 61076-2-101           Status display         No           Overolage category         II           Degree of pollution         3           Connection method         Individual wires           Insertion/withdrawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1,5           Material         V0           Contact material         Quart           Contact material         Quart           Contact surface material         Quart           Contact surface material         Au           Contact surface material         PA 6.6           Material, Nurds         Brass           Saaling material         NBR           Cable         TPE litz wire           Conductor cross section         0.34 mm²           AVG signal line         22           Conductor structure signal line         0.25 mm           Core diameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, while, blue, black, gray           Material conductor insulation         1.2 mm ±0.07 fm           Thickness, in	Insulation resistance	≥ 100 MΩ
Status display         No           Overvoltage category         II           Degree of pollution         3           Connection method         Individual wires           Insertion/withdrawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1.5           Material         V0           Contact tamaterial         Cu2n           Contact surface material         PA 6.6           Material, knurls         Brass           Saling material         NBR           Calde         Vol           Conductor cross section         0.34 mm²           AVG signal line         22           Conductor ross section         0.24 mm²           VMC signal line         22           Conductor insulation         1.2 mm ±0.07 mm           Cord dameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         The plated Cu litz wires           Conductor resistance         22 MQ*km           Conductor resistance         22 mm           Conductor insulation         1.2	Coding	A - standard
Overvoltage category         II           Degree of pollution         3           Connection method         Individual wires           Insertion/withdrawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1.5           Material         V0           Contact material         CuZn           Contact surface material         Au           Contact surface material         Au           Contact surface material         PA 6.6           Material, knurls         Brass           Sealing material         NBR           Colde type         TPE litz wire           Conductor cross section         0.34 mm²           Conductor structure signal line         7x 0.25 mm           Corde diameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TPE litz wires           Conductor structure signal line         22           Conductor sinulation         1.2 mm ±0.07 mm           Corder diameter including insulation         1.2 mm ±0.07 mm           Miterial conductor insulation <td< td=""><td>Standards/regulations</td><td>M12 connector IEC 61076-2-101</td></td<>	Standards/regulations	M12 connector IEC 61076-2-101
Degree of pollution         3           Connection method         Individual wires           Insertion/with/drawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mouting M20 x 1,5           Waterial         Filtermability rating according to UL 94         V0           Contact material         CuZn         Contact surface material           Contact surface material         Au         Contact carrier material           Contact carrier material         PA 6.6         Material           Sealing material         NBR         Colable           Cable         Conductor stross section         0.34 mm²           AWG signal line         22         Conductor structure signal line         7x 0.25 mm           Cord clameter including insulation         1.2 mm ±0.07 mm         Thichness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray         Material Culitz wires         Conductor insulation         The-plated Culitz wires           Conductor insulation         TPE         Conductor insulation         2.1 mm         Storm, white, blue, black, gray           Material Conductor insulation         TPE         Conductor insulation         The-plated Culitz wires         Standards/specifications	Status display	No
Connection method         Individual wires           Insertion/withdrawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1,5           Waterial         V0           Flarmability rating according to UL 94         V0           Contact material         CuZn           Contact material         Au           Contact material         PA 6.6           Material, knurls         Brass           Sealing material         NBR           Cable         V2           Conductor cross section         0.34 mm²           AWG signal line         22           Conductor structure signal line         7x 0.25 mm           Corde diameter including insulation         1.2 mm ±0.07 mm           Wite colors         Brown, white, blue, black, gray           Material conductor insulation         1.2 mm ±0.07 mm           Wite colors         Brown, white, blue, black, gray           Material conductor insulation         1.2 mm ±0.07 mm           Wite colors         Brown, white, blue, black, gray           Material conductor insulation         1.2 mm ±0.07 mm           Wite colors         Brown, white, blue, black, gray           Material conductor i	Overvoltage category	
Insertion/withdrawal cycles         > 100           Torque         3 Nm 4 Nm (Installation-side)           Mounting type         Front mounting M20 x 1.5           Waterial         V0           Contact material         CuZn           Contact material         Au           Contact surface material         Au           Contact surface material         PA 6.6           Material, knurls         Brass           Sealing material         NBR           Cable         TPE litz wire           Conductor cross section         0.34 mm²           AWG signal line         22           Conductor structure signal line         7x 0.25 mm           Cord carrier including insulation         1.2 mm ± 0.07 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TPE           Conductor material         Tin-plated Cu litz wires           Standards/specifications         M12 connector IEC 61076-2-101           Insulation resistance         200 MV*m           Conductor resistance         \$7.6 m Mm           Conductor resistance         \$7.6 m Mm           Standards/specifications         M12 connector IEC 61076-2-101           Insulation resistance         \$7	Degree of pollution	3
Torque3 Nm 4 Nm (Installation-side)Mounting typeFront mounting M20 x 1,5MaterialFront mounting M20 x 1,5VaterialV0Contact materialCuZnContact surface materialAuContact carrier materialAuContact carrier materialPA 6.6Material, knurlsBrassSealing materialNBRCableConduct or cross sectionConduct or structure signal line22Conductor structure signal line1.2 mm 40.07 mmCroited corrisBrown, white, blue, black, grayMereial conductor insulation1.2 mm 40.07 mmThickness, insulationTPEConductor misulation1.2 mm 40.07 mmCharler signal line2.2Conductor insulation1.2 mm 40.07 mmThickness, insulation1.2 mm 40.07 mmThickness, insulation1.2 mm 40.07 mmConductor insulation1.2 mm 40.07 mmThickness, insulation2.2Conductor insulation1.2 mm 40.07 mmThickness, insulation0.21 mmMaterial conductor insulation1.2 mm 40.07 mmThickness, insulation1.2 mm 40.07 mmConductor insulation2.2Conductor insulation1.2 mm 40.07 mmThickness, insulation2.0 MQ*kmConductor insulation1.2 mm 40.07 mmThickness, insulation2.0 MQ*kmConductor resistance2.0 MQ*kmConductor resistance2.0 MQ*kmConductor resistance3.00 VT	Connection method	Individual wires
Mounting type         Front mounting M20 x 1.5           Waterial         V0           Flammability rating according to UL 94         V0           Contact material         CuZn           Contact surface material         Au           Contact carrier material         PA 6.6           Material, knufs         Brass           Sealing material         NBR           Cable         TPE litz wire           Conduct or ses section         0.34 mm²           Conductor structure signal line         22           Conductor structure signal line         7x 0.25 mm           Corde diameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TPE           Conductor insulation         12 mm ±0.07 mc           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         12 mm ±0.07 mc           Thickness, insulation         20 MO*km           Conductor material         Gooductor material           Conductor insulation         57.6 mQ/m           Insulation resistance         20	Insertion/withdrawal cycles	> 100
Vaterial           Flammability rating according to UL 94         V0           Contact material         CuZn           Contact surface material         Au           Contact carrier material         PA 6.6           Material, knurls         Brass           Sealing material         NBR           Conduct or sors section         0.34 mm²           Conductor cross section         0.34 mm²           Conductor structure signal line         22           Conductor structure signal line         7x 0.25 mm           Core diameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TPE           Standards/specifications         M12 connector IEC 61076-2-101           Insulation resistance         20 MC*km           Conductor resistance         20 MC*km           Conductor resistance         20 MC*km           Conductor resistance         20 MC *km           Conductor seistance         \$7.6 mC/m	Torque	3 Nm 4 Nm (Installation-side)
Flammability rating according to UL 94V0Contact materialCuZnContact surface materialAuContact carrier materialPA 6.6Material, knurlsBrassSealing materialNBRCableTPE litz wireConductor cross section0.34 mm²Conductor signal line22Conductor signal line7x 0.25 mmCord diameter including insulation1.2 mm ±0.07 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor meterialM12 connector IEC 61076-2-101Insulation resistance>20 MQ*kmConductor resistance\$7.6 mQ/mNominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)40 °C 85 °C (cable, fixed installation)	Mounting type	Front mounting M20 x 1,5
Contact material         CuZn           Contact surface material         Au           Contact carrier material         PA 6.6           Material, knurls         Brass           Sealing material         NBR           Cable         TPE litz wire           Conductor cross section         0.34 mm²           AWG signal line         22           Conductor structure signal line         7x 0.25 mm           Core diameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TIPE           Conductor material         M12 connector IEC 61076-2-101           Insulation resistance         ≥ 20 MΩ'km           Conductor resistance         ≤ 00 Ω/ km           Conductor resistance         ≥ 20 MΩ'km           Conductor resistance         ≤ 00 Ω/ km           Conductor resistance         ≤ 00 Ω/ km           Conductor grastance         ≤ 00 Ω/ km           Conductor resistance         ≤ 00 Ω/ km  <	Material	
Contact surface materialAuContact carrier materialPA 6.6Material, knurlsBrassSealing materialNBRCableCableCable typeTPE litz wireConductor cross section0.34 mm²AWG signal line22Conductor structure signal line1.2 mm ±0.07 mmCore diameter including insulation1.2 mm ±0.07 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance< 20 MΩ*km	Flammability rating according to UL 94	VO
Contact carrier materialPA 6.6Material, knurlsBrassSealing materialNBRCableTPE litz wireCable typeTPE litz wireConductor cross section0.34 mm²AWG signal line22Conductor structure signal line7x 0.25 mmCore diameter including insulation1.2 mm ±0.07 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance $\leq 20$ MQ²kmConductor resistance $\leq 57.6$ mQ/mNominal voltage, cable300 VAmbient temperature (operation)40 °C 85 °C (cable, fixed installation)	Contact material	CuZn
Material, knurls         Brass           Sealing material         NBR           Cable         TPE litz wire           Cable type         TPE litz wire           Conductor cross section         0.34 mm²           AWG signal line         22           Conductor structure signal line         7x 0.25 mm           Core diameter including insulation         1.2 mm ±0.07 mm           Thickness, insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TPE           Conductor material         Tin-plated Cu litz wires           Standards/specifications         M12 connector IEC 61076-2-101           Insulation resistance         \$20 MΩ <sup>r</sup> km           Conductor resistance         \$7.6 mΩ/m           Nominal voltage, cable         300 V           Test voltage, cable         2000 V AC           Ambient temperature (operation)         40 °C85 °C (cable, fixed installation)	Contact surface material	Au
Sealing material         NBR           Cable         TPE litz wire           Cable type         TPE litz wire           Conductor cross section         0.34 mm²           AWG signal line         22           Conductor structure signal line         7x 0.25 mm           Core diameter including insulation         1.2 mm ±0.07 mm           Core diameter including insulation         0.21 mm           Wire colors         Brown, white, blue, black, gray           Material conductor insulation         TPE           Conductor material         Tin-plated Cu litz wires           Standards/specifications         M12 connector IEC 61076-2-101           Insulation resistance         \$20 MΩ*km           Conductor resistance         \$7.6 mΩ/m           Nominal voltage, cable         300 V           Test voltage, cable         2000 V AC           Ambient temperature (operation)         40 °C 85 °C (cable, fixed installation)	Contact carrier material	PA 6.6
Cable         Cable type       TPE litz wire         Conductor cross section       0.34 mm²         AWG signal line       22         Conductor structure signal line       7x 0.25 mm         Core diameter including insulation       1.2 mm ±0.07 mm         Core diameter including insulation       0.21 mm         Wire colors       Brown, white, blue, black, gray         Material conductor insulation       TPE         Conductor material       Tin-plated Cu litz wires         Standards/specifications       M12 connector IEC 61076-2-101         Insulation resistance       ≥ 20 MΩ*km         Conductor resistance       ≤ 57.6 mΩ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       40 °C 85 °C (cable, fixed installation)	Material, knurls	Brass
Cable typeTPE litz wireConductor cross section0.34 mm²AWG signal line22Conductor structure signal line7x 0.25 mmCore diameter including insulation1.2 mm ±0.07 mmCore diameter including insulation0.21 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialM12 connector IEC 61076-2-101Insulation resistance≥ 20 MΩ*kmConductor resistance≤ 57.6 mΩ/mNominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	Sealing material	NBR
Conductor cross section0.34 mm²AWG signal line22Conductor structure signal line7x 0.25 mmCore diameter including insulation1.2 mm ±0.07 mmCore diameter including insulation0.21 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance≥ 20 MΩ*kmConductor resistance≤ 57.6 mΩ/mNominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	Cable	
AWG signal line22Conductor structure signal line7x 0.25 mmCore diameter including insulation1.2 mm ±0.07 mmCore diameter including insulation0.21 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance≥ 20 MΩ*kmConductor resistance≤ 57.6 mΩ/mNominal voltage, cable300 VAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	Cable type	TPE litz wire
Conductor structure signal line       7x 0.25 mm         Core diameter including insulation       1.2 mm ±0.07 mm         Thickness, insulation       0.21 mm         Wire colors       Brown, white, blue, black, gray         Material conductor insulation       TPE         Conductor material       Tin-plated Cu litz wires         Standards/specifications       M12 connector IEC 61076-2-101         Insulation resistance       ≥ 20 MΩ*km         Conductor resistance       ≤ 57.6 mΩ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Conductor cross section	0.34 mm <sup>2</sup>
Core diameter including insulation1.2 mm ±0.07 mmThickness, insulation0.21 mmWire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance≥ 20 MΩ*kmConductor resistance≤ 57.6 mΩ/mNominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	AWG signal line	22
Thickness, insulation       0.21 mm         Wire colors       Brown, white, blue, black, gray         Material conductor insulation       TPE         Conductor material       Tin-plated Cu litz wires         Standards/specifications       M12 connector IEC 61076-2-101         Insulation resistance       ≥ 20 MQ*km         Conductor resistance       ≤ 57.6 mQ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Conductor structure signal line	7x 0.25 mm
Wire colorsBrown, white, blue, black, grayMaterial conductor insulationTPEConductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance≥ 20 MΩ*kmConductor resistance≤ 57.6 mΩ/mNominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	Core diameter including insulation	1.2 mm ±0.07 mm
Material conductor insulation       TPE         Conductor material       Tin-plated Cu litz wires         Standards/specifications       M12 connector IEC 61076-2-101         Insulation resistance       ≥ 20 MΩ*km         Conductor resistance       ≤ 57.6 mΩ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Thickness, insulation	0.21 mm
Conductor materialTin-plated Cu litz wiresStandards/specificationsM12 connector IEC 61076-2-101Insulation resistance≥ 20 MΩ*kmConductor resistance≤ 57.6 mΩ/mNominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	Wire colors	Brown, white, blue, black, gray
Standards/specifications       M12 connector IEC 61076-2-101         Insulation resistance       ≥ 20 MΩ*km         Conductor resistance       ≤ 57.6 mΩ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Material conductor insulation	TPE
Insulation resistance       ≥ 20 MΩ*km         Conductor resistance       ≤ 57.6 mΩ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Conductor material	Tin-plated Cu litz wires
Conductor resistance       ≤ 57.6 mΩ/m         Nominal voltage, cable       300 V         Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Standards/specifications	M12 connector IEC 61076-2-101
Nominal voltage, cable300 VTest voltage, cable2000 V ACAmbient temperature (operation)-40 °C 85 °C (cable, fixed installation)	Insulation resistance	$\geq$ 20 MQ*km
Test voltage, cable       2000 V AC         Ambient temperature (operation)       -40 °C 85 °C (cable, fixed installation)	Conductor resistance	$\leq$ 57.6 m $\Omega$ /m
Ambient temperature (operation)     -40 °C 85 °C (cable, fixed installation)	Nominal voltage, cable	300 V
	Test voltage, cable	2000 V AC
-25 °C 85 °C (cable, flexible installation)	Ambient temperature (operation)	-40 °C 85 °C (cable, fixed installation)
		-25 °C 85 °C (cable, flexible installation)

#### Standards and Regulations

Standards/specifications	M12 connector IEC 61076-2-101
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## Technical data

#### Standards and Regulations

Flammability rating according to UL 94	VO
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.
	WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	<ul> <li>The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>
	When operating the connectors in outdoor applications, they must be separately protected against environmental influences.
	Assembled products may not be manipulated or improperly opened.
	Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).
	When using the product in direct connection with third-party manufacturers, the user is responsible.
	For operating voltages > 50 V AC, conductive connector housings mus be grounded
	• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.
	Observe the corresponding technical data. You will find information:     o On the product     o On the packing label     o In the supplied documentation     o Online at phoenixcontact.com/products under the product
	Only use tools recommended by Phoenix Contact
	Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at phoenixcontact.com/products
	Ensure that the protective or functional ground has been properly connected.
	• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector
	• The connector warms up in normal operation. Depending on the ambient conditions, the surface of the connector can continue to warm up. In this case, the user is responsible for posting warnings (e.g. DIN EN ISO 13732-1:2008-12).

### **Environmental Product Compliance**

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years

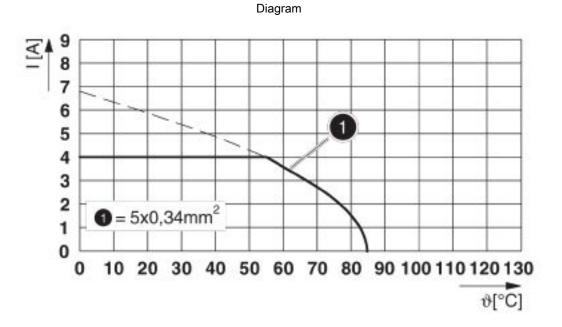


### Technical data

**Environmental Product Compliance** 

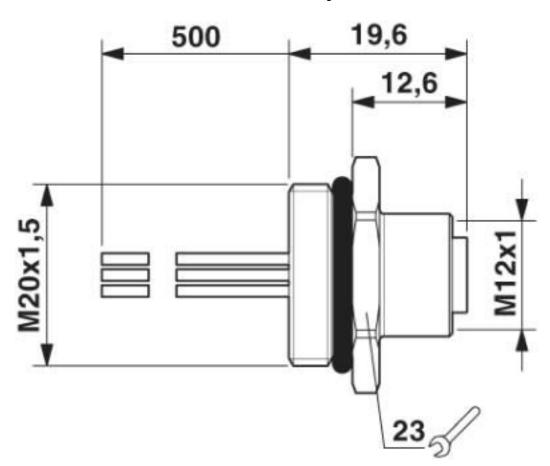
For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

### Drawings



I = current strength, T = ambient temperature

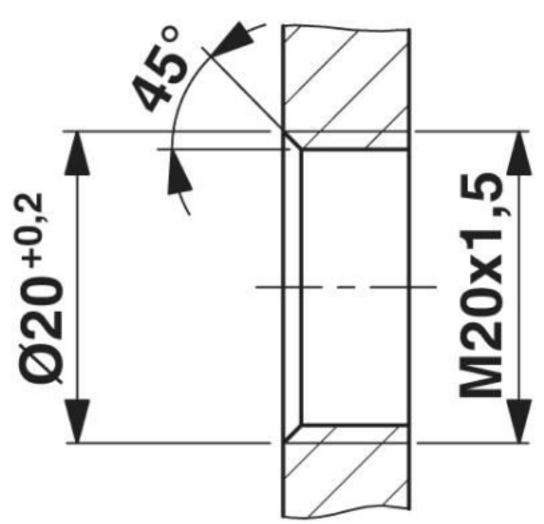




Dimensional drawing

M12 flush-type socket

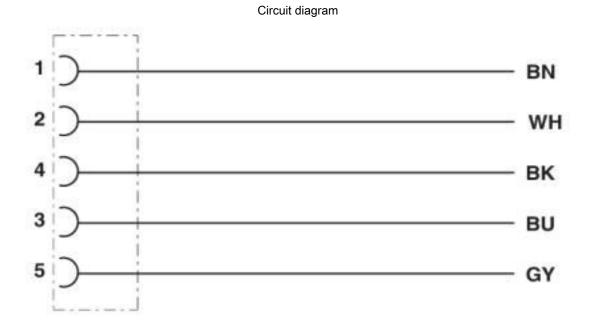




Dimensional drawing

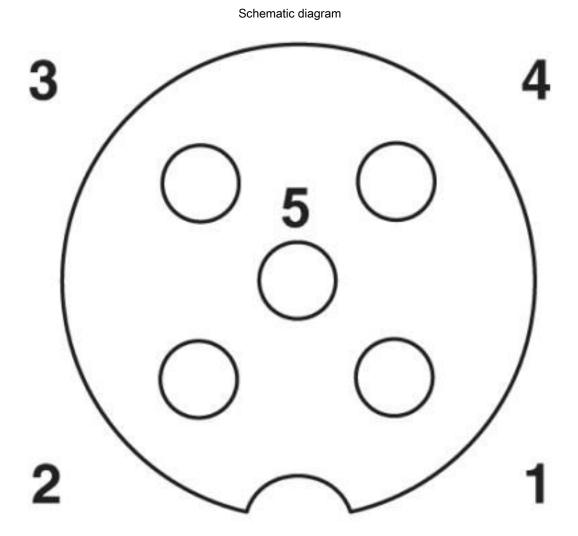
Housing cutout for M20 fastening thread, mounting panel with thread





Contact assignment of the M12 plug and the M12 socket





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

### Classifications

#### eCl@ss

eCl@ss 10.0.1	27440102
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27143400
eCl@ss 6.0	27279200
eCl@ss 7.0	27440103
eCl@ss 8.0	27440103
eCl@ss 9.0	27440102



## Classifications

### ETIM

ETIM 3.0	EC002061
ETIM 4.0	EC002062
ETIM 5.0	EC002061
ETIM 6.0	EC002061

#### 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

EAC

#### Ex Approvals

#### Approval details

EAC EAC B.01687

### Accessories

Accessories

Plug for cable screw gland



### Accessories

Screw plug - PROT-M12 - 1680539



An M12 screw plug for the unoccupied M12 sockets of the sensor/actuator cable, boxes and flush-type connectors

Screw plug - PROT-M12 SH - 1503302



An M12 screw plug for the unoccupied M12 sockets of the shielded sensor/actuator cable, boxes and flush-type connectors

Screw plug - PROT-M12 FB - 1555538



M12 high-grade steel screw plug, for unoccupied M12 sockets of the sensor/actuator cables, boxes and flush-type connectors for the food industry

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