



INSTRUCTIONS OF USE FOR ELECTRICAL CONNECTORS

(BASED ON DIN EN 175301-803)

Dear Customer,

To ensure the function of the product as well as your own safety please read carefully the manual before starting the installation of the product.

In general

HAFNER Pneumatik does not accept any liability if the regulations of this operating instruction are not followed, and for repairs resulting from incorrect use of the connectors. This includes the liability of products as well as accessory items. Make sure to obey the instructions given in this manual as well as the required environmental conditions published in sales literature as well as on the internet and on labels printed onto the products. When selecting, installing or operating the product, please obey the general rules of technology. Make sure to avoid unintended activation as well as any kind of improper use.

Caution! Risk of injury! The electrical connector's surface can get hot during continuous operation.

The operating instructions apply to the following electrical connectors:

ST 30 DIN IP65	ST 30	ST 22 M	ST 223 24	ST 222 V 230
ST 302 V 24	ST 22 E 4-6	ST 222 V 24 P E 1 N	ST 222 V 24	
ST 302 V 230	ST 22 E 1 N	ST 222 V 24 J	ST 222 V 110	

Some electrical connectors are wired and have a LED that illuminates when under voltage and a varistor that protects the controller from solenoid surges.

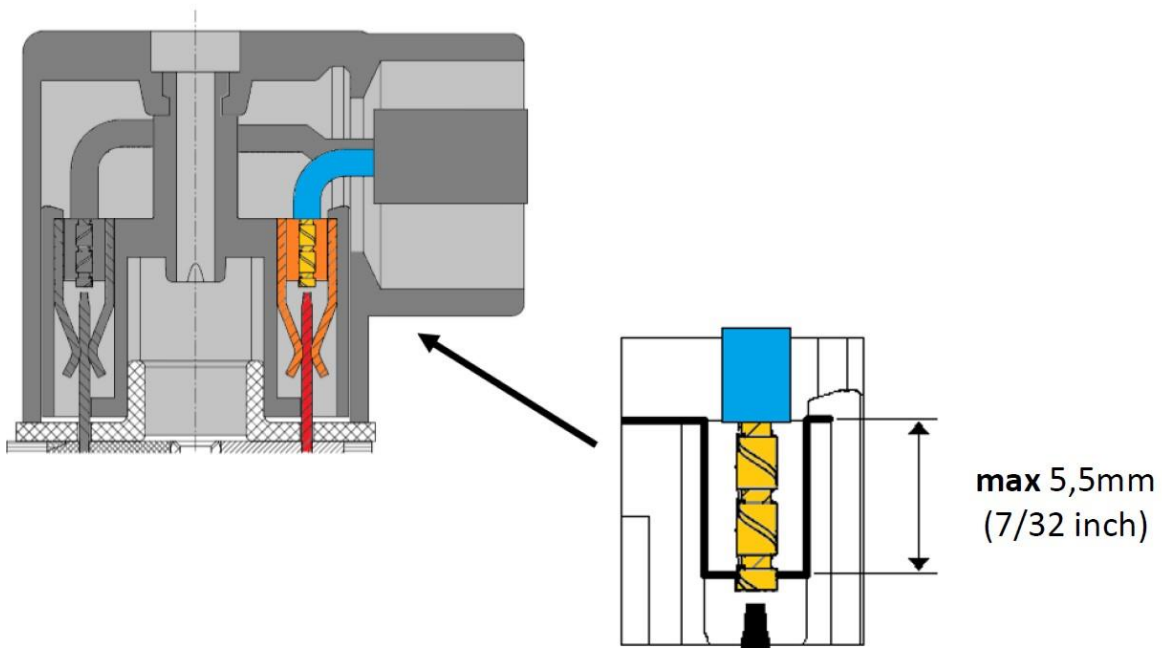
Installation

The relevant regulations must be observed during installation, maintenance or repair. Electrical installation must be carried out by or under the supervision of a qualified electrician, taking into account the relevant international standards.

Connecting the connectors

Wire ends have to be stripped to a maximum of 5,5mm (7/32 inch) to control the depth of the wire into the contact. (Wire end sleeves are recommended.)

After stripping the wires, the order of connecting the positive and negative poles can be reversed. When using alternating current (AC), the earth must also be connected to the contact marked with a symbol on the connector surface:



Intended use

The connectors are only used for connections between components, devices and systems, for the transmission of electrical energy and signals.

Make sure that the connectors or sockets are always provided with plug contacts on the live side.

Ensure that the connecting cables are not subjected to unacceptable tensile, compressive, bending or torsional loads.

Only work with people who meet the specified requirements when working on the connectors.

Connectors must not be connected or disconnected under electrical voltage.

Protect the mounting location of the connector from light.

The use of a flat seal for the electrical connections during assembly is mandatory.

After connecting the electrical connector, tighten the retaining screw to the correct torque.

If a problem is detected when connecting to the socket (e.g. dirt, bent contacts etc.), the cause must be rectified.

During operation, make sure that the maximum permissible temperature at the connection is not exceeded. Defective devices cannot be repaired.

The cable connections must be free of dirt and corrosion.

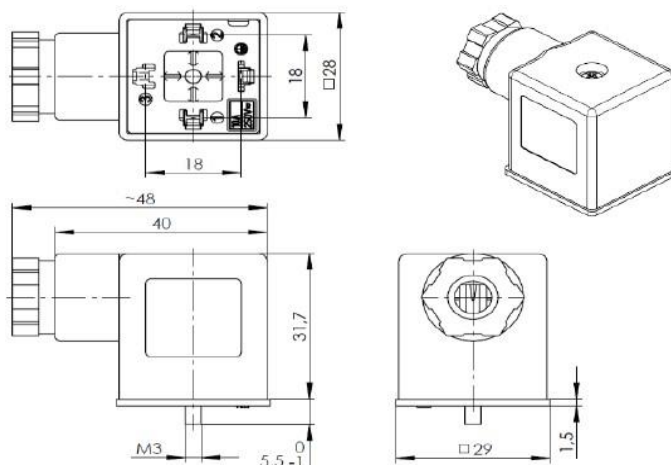
It is forbidden to unplug or forcibly insert the plug from the power supply.

Protect electrical connectors from dirt, aggressive substances (e.g. acids, alkalis, gases etc.), moisture and from not allowed temperatures.

The connectors must be cleaned regularly. Use an antistatic cloth for cleaning. Disconnect from the power supply before cleaning.

Form A

Housing Material:	PA6 GF30
Cable gland thread:	M20x1,5
Cable diameter:	6-8mm
Tightening torque:	1,8 ± 0,2Nm
Poles:	2 + PE
Direction of protecting earth:	12 h
Contact distance:	18 mm
Contact material:	CuZn, tin-plated
Resistance:	< 15mOhm
Conductor cross-section:	0,5-1,5mm ²
Max. tightening torque:	0,3 Nm
Wire protection:	use of wire end sleeves is recommended
Gasket type:	flat
Fastening screw material:	steel 4.8, zinc-plated
Fastening screw size:	M3 x 33,5mm (with cross recess)
Fastening screw tightening torque:	0,4 ± 0,1 Nm
Voltage:	0 – 250 V + 15%
Ambient temperature range	-25°C - +90°C



Form B industry form

Housing Material:	PA6 GF30
Cable gland thread:	M16x1,5
Cable diameter:	4-6mm, 6-8mm (depending on the type)
Tightening torque:	1,8 ± 0,2Nm
Poles:	2 + PE
Direction of protecting earth:	lockable in 180 degree increments in housing
Contact distance:	11 mm
Contact material:	CuZn, tin-plated
Resistance:	< 15mOhm
Conductor cross-section:	0,5-1,5mm ²
Max. tightening torque:	0,3 Nm
Wire protection:	use of wire end sleeves is recommended
Gasket type:	flat
Fastening screw material:	steel 4.8, zinc-plated
Fastening screw size:	M3 x 33,5mm (with cross recess)
Fastening screw tightening torque:	0,4 ± 0,1 Nm
Voltage:	0 - 250 V + 15%
Ambient temperature range	-25°C - +90°C

