

ES-2.. ELECTRONIC SAFETY SWITCHING DEVICE FOR PRESSURE MONITORING

ES-22

Pressure limiter | Pressure monitor |
Safety pressure limiter

Two functions combinable in one device
Type-tested, according to 2014/68/EU

- ✓ Easy and highly precise limit value setting
- ✓ Robust and fail-safe design with integrated self-test functions for industrial applications
- ✓ Indication of measurements and alarms via display
- ✓ Wide range of service functions and data logging
- ✓ On-site operation on the unit and via smartphone



Technical data

Characteristics

Operating voltage	16...32 V DC (max. 5,9 W)
Dimensions	150 x 60 x 42 mm (LxWxH)
Housing	Anodised aluminium
Parts in contact with the medium	Stainless steel (relative pressure version)
Protection class	IP65

Operating conditions

Pressure type	Relative pressure Differential pressure
Media temperature	-40...+125 °C
Ambient temperature	-20...+65 °C

Process connection

Relative pressure version	G 1/4" internal thread
Differential pressure version	G 1/8" internal thread

Adapter upon request

Electrical connections

Analogue current output	1x 4...20 mA
Digital inputs/outputs	Configurable as 2x alarm or 1x alarm and 1x remote unlocking

Load capacity of the switching contacts

DC1/DC13: 16 A (24 V) 2 A (40 V) 0.3 A (200 V)	AC1: 16 A AC3: 10 A AC16: 8 A
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	Relative pressure	Differential pressure
Measuring range nominal pressure	-1...500 bar variably selectable	0...1 mbar 0...10 mbar 0...50 mbar 0...100 mbar 0...250 mbar 0...1,000 mbar
Overload pressure	2x nominal pressure	10x nominal pressure
Bursting pressure	4x nominal pressure	15x nominal pressure
Setting accuracy	0.1 % of nominal pressure	
Other measuring ranges upon request		

Possible applications

- ✓ Refrigeration systems and heat pumps
- ✓ Ventilation, heating and climate technology
- ✓ Filter and pump monitoring
- ✓ Hot water and steam boiler monitoring
- ✓ Process measurement technology
- ✓ Mechanical and plant engineering

Technical modifications reserved.

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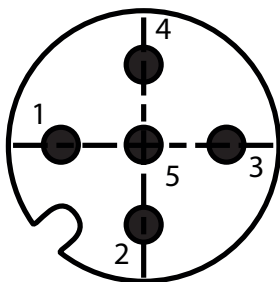
Wiring diagram of the cable sockets and connectors

Connector 1: 5-pin M12

A-coded

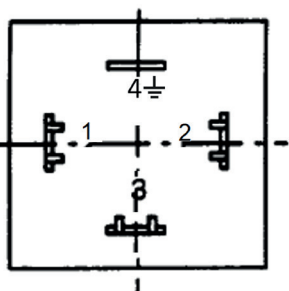
Pin assignment (male):

- 1: GND
- 2: 16...32 V DC (max. 3.2 W)
- 3: Digital I/O 1 (configurable)
- 4: Current output (4...20 mA)
- 5: Digital I/O 2 (configurable)



Connector 2: Rectangular connector, according to EN 175301 form A

- 1 and 2: Switching channel 1
- 3 and 4: d.n.c. / do not connect



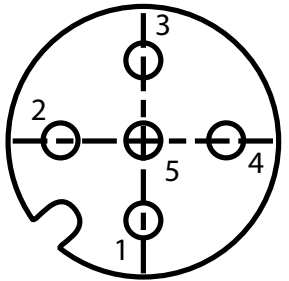
Achtung Kontakt 4 \perp nicht mit Erde verbinden

Connector 3: 5-pin M12

A-coded

Pin assignment (female):

- 1: GND
- 2: Supply for ZT-S...
- 3: Digital I/O (communication to ZT-S...)
- 4: n.c. / not connected
- 5: n.c. / not connected



Smartphone App

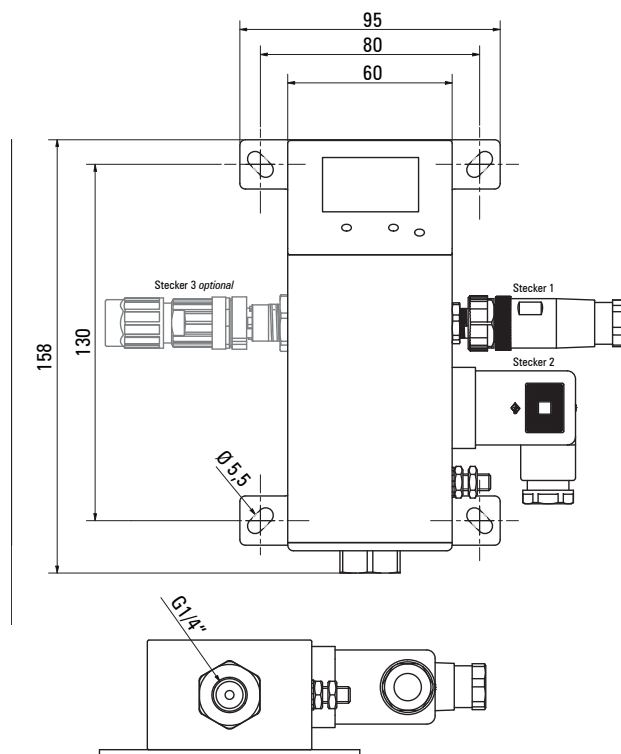


- ✓ Retrieval of setting and test protocols
- ✓ Comfortable setting of limit values & delay times
- ✓ Configuration of the device
- ✓ Management of multiple devices

More information: www.zila.de/es20

Test the app now!

Device design and dimensions



Model number

Basic designation

Measurand

- D = Pressure
- DD = Differential pressure

Safety function 1

- A = DKW (pressure switch)
- B = DBK (pressure limiter)
- C = SDBK (safety pressure limiter)

Safety function 2

- A = DKW (pressure switch)
- B = DBK (pressure limiter)
- C = SDBK (safety pressure limiter)

Direction of action

- (HH) = Rising/maximum
- (LL) = Falling/minimum
- (HL) = Max / min combined
- (LH) = Min / max combined

Measuring range

= e.g. 60 for 60 bar

Optionally: Ex version

Ex-i = Intrinsically safe

Optionally: Extension measuring channel, switching channel

- Not specified = No extension intended
- /E = Additional switching channels with extension unit (ESE)
- /1...3 = Number of additional measuring channels via ZT-S sensors
- /E1...3 = Number of additional measuring channels and additional switching channels

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