Product information

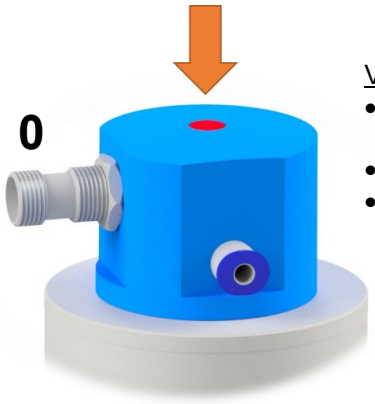
Armaturen GmbH

M&S-signal box SB for position feedback

When automating systems, it is imperative that the control system knows the switching position of the integrated valves. Therefore, reaching the respective end position "open" or "closed" is reported back to the control system via a signal. Inductive proximity sensors (PS) or microswitches are usually used for this purpose. The design and position of these signal transmitters varies depending on the customer's requirements.

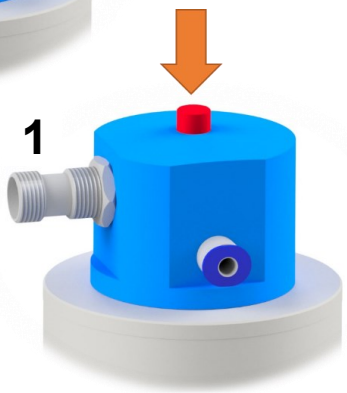
M&S has designed a retrofittable, easy-to-mount signal box for mounting on pneumatic actuators of size 0,1 and 2. It is used for the visual display and accommodation of a proximity sensor for the feedback of the valve basic position.

Valve with actuator NC



Valve position „open“

- Compressed air applied
- Indicator retracted
- Sensor no signal



Valve position „closed“

- Without compressed air
- Indicator extended
- Sensor sends signal

Butterfly valve with signal box

Usage

- Visual indication of the valve position.
- Extension module for the pneumatic actuator PAMS. To accommodate a proximity sensor for electronic end position feedback of the valve basic position.

Features

- Clearly recognisable indication of the switching position by means of a red or green (optional) signal pin.
- Single box: prepared to accomodate one inductive proximity switch (M12x1) for feedback of the valve basic position
- Double box: prepare to accomodate two inductive proximity switches (M12x1) for feedback of the respective valve position.
- Retrofittable to all pneumatic M&S actuators.
- Simple mounting - the position indicator is supplied ready for mounting. It is easily mounted by screwing it into the upper air connection of the pneumatic actuator. Compressed air is supplied via the signal box.
- After mounting, the signal box for electrical and pneumatic connection is freely rotateable by 360°.
- Sealing to the actuator splash-proof.
- Compact and space-saving design.

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Usage | **Features** | **Versions**

Construction / assembly

- The signal box (SB) is delivered ready for installation with a red or geen (optional) signal pin, depending on the required indication of the damper position (fig.1).
- The SB is screwed directly into the compressed air connection of the pneumatic actuator (fig.2) up to the first stop (fig.3).
- The housing is rotated until both mounting holes are aligned with each other (fig.3+4).
- Insert a 4 mm hex. spanner into this hole in the inner metal part as far as it will go and tighten the SB (fig. 5).
  Note: In case of delivery incl. straight compressed air screw connection, the hex. spanner is also guided through the screw connection for assembly!
- For the final assembly, the compressed air screw connection and a proximity sensor M12x1 are screwed in as far as they will go. The proximity sensor is then locked with the hexagon nut (fig.6).
- After assembly, the SB can be rotated freely through 360° and also serves as a strain relief for the pneumatic and electrical connection.

Figure 1

Figure 2

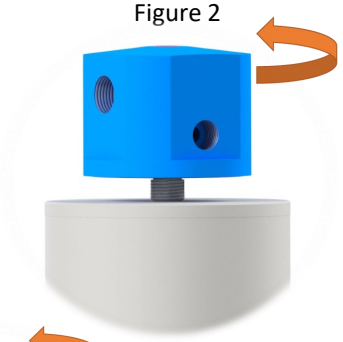


Figure 3

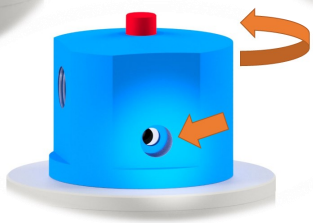


Figure 4

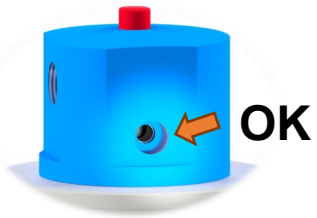


Figure 5

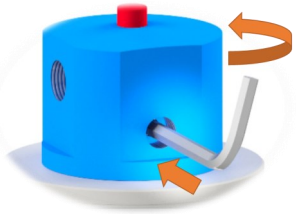
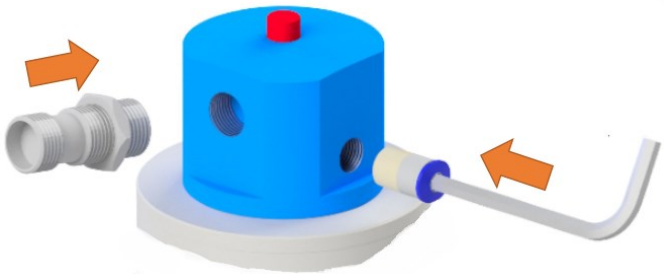


Figure 6



Usage | **Features** | **Versions**

- Materials
  - Housing plastic PE-UHMW (acid and alkali resistant)
  - Screw-in parts 1.4301/AISI 304
- Protection class
  - IP 65
- Connections
  - Plug-in air connection 6 mm
  - Prepared M12x1 threaded hole for proximity sensors
- Visual signal indication
  - Valve closed: red extended — valve open: red retracted
  - Valve open: green extended — valve closed: green retracted (optional)
- Operating pressure
  - 4,8 - 8,0 bar
- Operating temperature
  - +1 C° bis max. +60 C°

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