# INSTRUCTION MANUAL





## 1. Description

Signal devices are used to report and control the position of valves which are operated by pneumatic actuators. The ET-Limit-Switchboxes are equipped with two cylindrical proximity switches. With the enclosed mounting parts the boxes can be easily and quickly mounted on actuators or valves.

#### 2. Assembling



#### Risk of injury

The electric components inside the box carry dangerous voltage. Moreover there is a risk of bruise by some rotating parts.

- → Do not open the housing while operating!
- 1. Bring the actuator to a completely "Open" or "Close" position.
  - Close: Valve is closed, Channel position is abreast the actuators longitudinal axis.

    Open: Valve is open, Channel position towards actuator axis.
- 2. Equate the modules axis with the actuator.
- 3. Attach the box with bracket on the actuator or valve and fix it.
- 4. Adapt the control unit by leading the system cable through the cable gland and wiring the single conductors with the terminal block.
  - Please note the wiring diagramm in the technical data sheet. The wiring diagramm can also be found in the box.

# 3. Adjusting switch-points

Ex factory the modules are adjusted as following:

Switch-point close: Position Valve/Actuator at 0° Switch-point open: Position Valve/Actuator at 90°



In the end positions the sensors are always damped, that the switch flag is adjusted so that the sensors are active only when the end positions (0° and 90°) has been reached. During the rotating process the sensors are inactive.

If readjustment should be necessary proceed as following:

- 1. Remove the housing cover.
- 2. Unscrew the screw nuts between the sensors. Turn the switch cams below the sensors until the wanted position has been reached.
  - At the end positions the switch flag must not touch the frontside of the sensor. Moreover the rated operating distance of the sensor has to be noticed.
- 3. Tighten screw nuts and refasten housing cover.

#### 4. Connecting solenoid valves

Depending on their design the switch-boxes offer the possibility to additionally connect up to two solenoid valves on the terminal block. If you want to wire solenoid valves additionally act on the following plan:

- 1. Replace the sideways blank plugs by a suitable cable gland.
- 2. Open screws and remove the housing cover.
- 3. Remove the cable covering.
- 4. Lead the system cable through the cable gland and wire it with the terminal block.
  - Please note the wiring diagramm in the technical data sheet. The wiring diagramm can also be found in the box.
- 5. Refasten cable covering and housing cover.

### 5. Maintenance

Long time outdoor usage can cause gaskets to become brittle after some time. Safe operation can only be guaranteed with leak-proof boxes.



Seals should be exchanged immediately if they are damaged, or at least after five years. Seals and other parts can be ordered at all times.

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