

## 1. Description

Signal devices are used to report and control the position of valves which are operated by pneumatic actuators. Depending on their design the signal boxes type CCR3... and CCR8... are equipped with up to three micro-switches. With the enclosed mounting parts the boxes can be easily and quickly mounted on actuators or valves.

## 2. Assembling

 <b>CAUTION</b>	<b>Risk of injury</b>  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!
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1. Bring the actuator to a completely "Open" or "Close" position.



*Closed: 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 in the following way:

Switch-point close: Position Valve/Actuator at 0° to 3°

Switch-point open: Position Valve/Actuator at 87° to 90°

(Switch-points of other switches optionally)

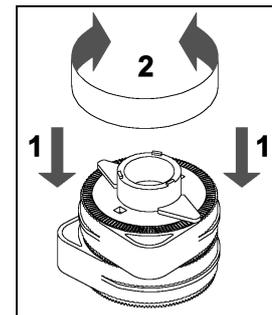
If readjustment should be necessary proceed as following:

1. Open screws and the housing cover.

2. Push down the exterior ring of the switch cam of the switch, which has to be readjusted (1). Turn the switch cam until the wanted position has been reached.

3. Proceed similiary with other switch-points.

4. Refasten housing cover.



Adjusting switch-points

## 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. 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.*

4. Refasten 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.  
Housing covers with sealing and O-ring gaskets can be ordered anytime.*

Erstellt am: 26.07.2007	Erstellt durch: SH	Geändert am:	Geändert durch:
<b>ROTECH Systemkomponenten GmbH</b>		Tel.: +49(0) 7243-5931-0	<a href="http://www.rotech.de">http://www.rotech.de</a>
		Fax: +49(0) 7243-5931-31	E-Mail: <a href="mailto:info@rotech.de">info@rotech.de</a>