

Mechanically operated Signal Devices TCR- series

Microswitches

The TCR- module with microswitches converts the end positions or middle position of the actuator into electrical signals.

The microswitch in the body is commonly used in cases where there are no special requirements or the working voltage should be set free.

The microswitch with its compact design is very suitable for mounting into the housing. When used as a potential free contact, the switch provides a very wide range of controlling possibilities.

The fully adjustable serrated cams are locked together to ensure that the adjusted setting is secured against vibration.

Also available with high vision beacon.



ADVANTAGES

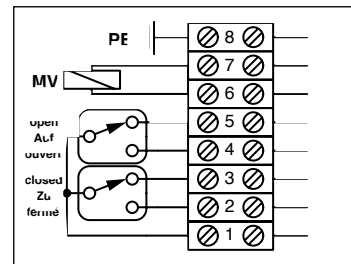
- „Open“ and „Closed“ position is easily adjusted by the switch cams.
- easy mounting by using screws with almost all components
- terminal block to connect solenoid valves

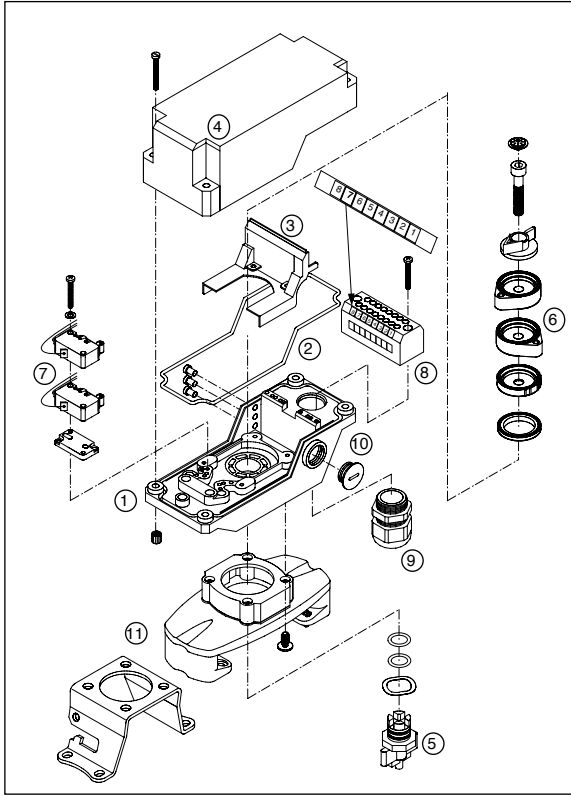
TECHNICAL DATA

| | | |
|-------------------------------------|--|---------------------|
| Manufacturer: | Crouzet | Crouzet |
| Type: | 83 161 301 | 83 161 801 |
| Switches loads : | 16 A, 250 V ~ | 0,1 A, 250 V ~ |
| acc. to UL + CSA | | |
| Contacts: | Silver-nickel | gold alloy |
| Mechanical life: | 2 x 10 ⁷ | 5 x 10 ⁷ |
| Ingress protection: | IP 65 | IP 65 |
| acc. to IEC 529 / DIN 40 050 | | |
| Temp. range: | -20 ... +100 °C | -25 ... +85 °C |
| Switching precision of the unit: | 1,5° | 1,5° |
| Base: | Vestamid black | |
| Cover: | Makrolon clear, Vestamid black or Aluminium nickel plated | |
| Sealing (housing): | EPDM, NBR or Silicon | |
| Prov. connection: | M20 x 1,5 | |
| solenoid connection: | M12 x 1,5 | |



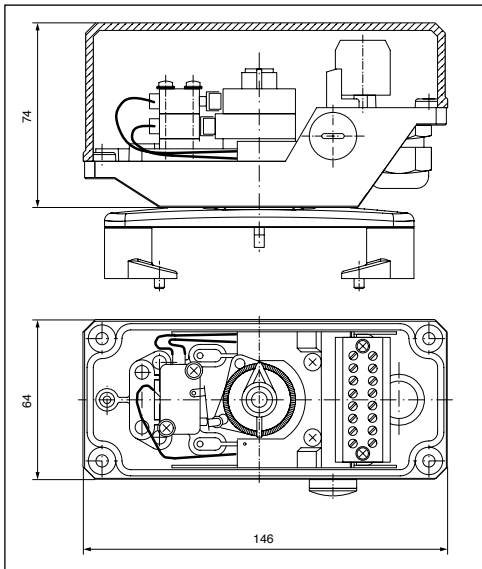
WIRING DIAGRAM Microswitch





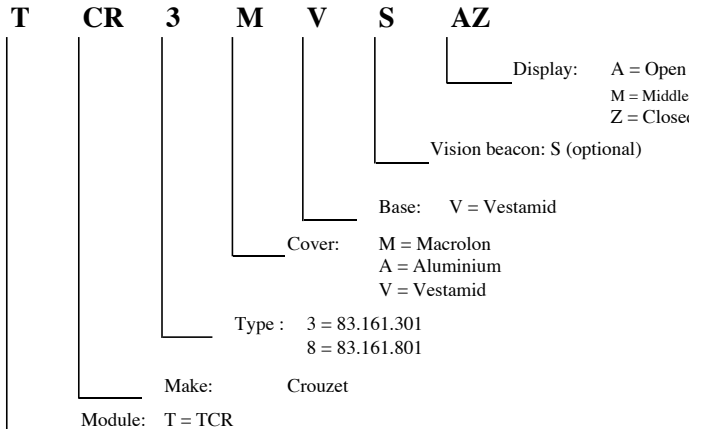
| Pos. | Pcs. | Description | Material |
|------|------|------------------------------|------------|
| 1 | 1 | Housing (base) | Vestamid |
| 2 | 1 | O-ring sealing | optional |
| 3 | 1 | Internal cover | PA + 30%GF |
| 4 | 1 | Housing (cover) | optional |
| 5 | 1 | TCR- axis | POM |
| 6 | 1 | Switch cam system | POM, A2 |
| 7 | 2 | Microswitch | - |
| 8 | 1 | Terminal block, 7 poles | - |
| 9 | 1 | Cable gland | - |
| 10 | 1 | Dummy plug for solenoid con. | - |
| 11 | 1 | Bracket, size 1-4 | A2 or PA |

Brackets chapter A5



Ordering information

TCR-modul with microswitches (without bracket)



The cover serves as a protection for the enclosed switching devices and has to resist the surrounding conditions. To fulfill all application requirements TCR- covers can be manufactured out of different materials.



For operation in factories the transparent macrolon cover is very suitable, especially on service duty.

For outdoor areas with high static loads the black vestamid cover is highly suitable. This cover is resistant against higher temperatures and ultra-violet lights and has a extremely low electrical resistance.

High vision beacon

Every box of the TCR-series can be upgraded with a high vision beacon. This allows visual control of the valve position from almost every direction. Available in various color combinations.



Mechanically Operated Signal Devices PB-Line

Microswitch

The PB-module with microswitches converts the mechanical end or middle positions of the actuator into electrical signals.

Microswitches are mainly used where there are no special requirements or the working voltage should be set freely. Being a potential-free contact the switch provides a wide range of controlling possibilities.

The end positions can be adjusted over a range from 0° to 360°. It is possible to connect the sensor damped or undamped. The fully adjustable serrated cams are locked together to ensure that the adjusted setting is secured against any vibration.



ADVANTAGES

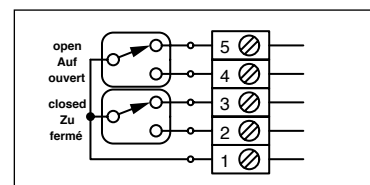
- very compact design
- wide range of use
- switching points adjustable over a range from 0° to 360°

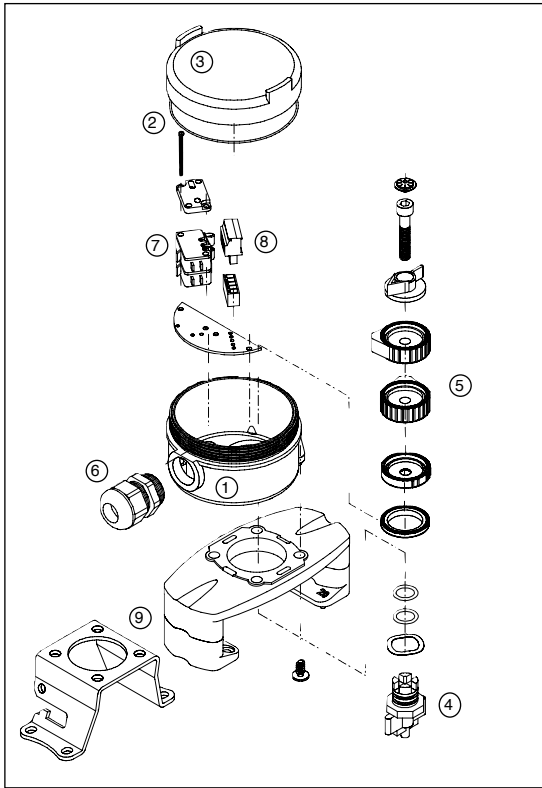
TECHNICAL DATA

| | | |
|------------------------------|---|---------------------|
| Manufacturer: | Crouzet | Crouzet |
| Type: | 83 161 301 | 83 161 801 |
| Switched loads | 16 A, 250 V ~ | 0.1 A, 250 V ~ |
| acc. to UL + CSA | | |
| Contacts: | silver-nickel | gold alloy |
| Mechanical life: | 2 x 10 ⁷ | 5 x 10 ⁷ |
| Sealing (Housing): | EPDM, NBR or silicon | |
| Ingress protection: | IP 65 | IP 65 |
| acc. to IEC 529 / DIN 40 050 | | |
| Switching precision | | |
| of the unit: | 1.5° | 1.5° |
| Base: | Vestamid black | |
| Cover: | Makrolon clear, Vestamid black or high vision beacon | |
| Sealing (Housing): | EPDM, NBR or Silicon | |
| Connection: | Pluggable cable connection and cable gland M20x1,5 | |



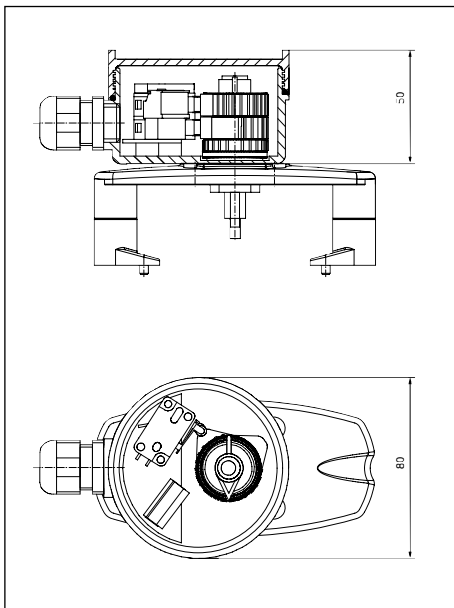
WIRING DIAGRAM





| Pos. | Pcs. | Description | Material |
|------|------|-------------------------|----------|
| 1 | 1 | Housing (base) | Vestamid |
| 2 | 1 | O-ring sealing | optional |
| 3 | 1 | Housing (cover9) | optional |
| 4 | 1 | TCR-axis | POM |
| 5 | 1 | Switch cam system | POM, A2 |
| 6 | 1 | Cable gland | --- |
| 7 | 2 | Microswitch | --- |
| 8 | 1 | Terminal block, 5 poles | --- |
| 9 | 1 | Bracket, size 1-4 | A2 or PA |

Brackets chapter A5



Ordering information

PB-Modul with microswitch (without bracket)

