

## Electrical position feedback for actuator sizes $\varnothing$ 40-125 mm

- Simple installation, convertible or retrofittable
- Self-adjusting trip cam for "closed" position
- LEDs provide local operational status and position indication
- Compact IP65 enclosure
- Mechanical, inductive or Namur limit switches


Type 2012
Globe valve

The electrical position feedback is to be installed on a valve. Valve positions are remotely reported electrically according to switch type: - open, closed (version with a limit switch) or - open and closed (version with two switches or a double limit switch)

LEDs provide optical position indication (except with the inductive 2 -wires version). Mechanical or inductive switches are housed in a compact splash-proof enclosure. The position indicator can be rotated $360^{\circ}$ and is easily fitted to the valve.

| Technical data |  |
| :---: | :---: |
| Material |  |
| Body / cover | PA6/PC |
| Seal (body/cover) | EPDM |
| Cable gland | PA or PVDF |
| Guide piece | Brass or stainless steel |
| Spindle | Brass and stainless steel |
| Electrical connection | Terminal strip with cable screwing M16x1.5, cable- $\varnothing$ between 5 and 7 mm , wire profile max. $1 \mathrm{~mm}^{2}$ |
| Ambient temperature | -20 to $+60^{\circ} \mathrm{C}$ (operation and storage) |
| Relative humidity | $\leq 85 \%$, not condensed |
| Protection class | IP65 with mounted and tightened connectors and tightly fixed electronic module cover |
| Approval | Limit switches acc. to VDE, IEC, UL, CSA, inductive limit switch in EExi (intrinsically safe) acc. to II 2 GD EEx ia II C T6, T5 or T4-T1 |
| Mounting | on piston actuator with actuator size $\varnothing$ 40-125 mm |
| Installation | As required |
| Mechanical limit switch (per limit switch) |  |
| Number of limit switches | 1 or 2 |
| Output version | Change-over contact (open and /or closed) in silver or gold |
| Status | Open, closed or open/closed, supply voltage Control lamp (LED) : green, red, orange and electrical feedback |
| Power supply | $\begin{aligned} & 12-48 \mathrm{~V} \text { DC/AC } \\ & 110 / 250 \mathrm{~V} D / \mathrm{AC} \end{aligned}$ |
| Power consumption (per limit switch) | $\begin{aligned} & <35 \mathrm{~mA}(48 \mathrm{~V} \mathrm{DC}) \\ & <8 \mathrm{~mA}(220 \mathrm{~V} \mathrm{AC}) \end{aligned}$ |
| Load current (per limit switch) | see table on next page |
| Voltage drop | Max. 1 V DC |


| Inductive limit switch with 3-wire technology |  |
| :--- | :--- |
| Number of limit switches | 1 or 2 |
| Output version | normally open contact (PNP) |
| Status | Open, closed or open/closed, supply voltage <br> Control lamp (LED): green, red, orange <br> and electrical feedback <br> Power supply |
| Power consumption <br> (per limit switch) | $\leq 15 \mathrm{~mA}$ |
| Load current (per limit switch) | $\leq 150 \mathrm{~mA}$, per output |


| Inductive double limit switch with -wire technology |  |
| :--- | :--- |
| Number of limit switches | 1 |
| Output version | normally open contact (PNP) |
| Status | Open and closed, supply voltage <br> Control lamp (LED): green, red, orange <br> and electrical feedback |
| Power supply | $10-30 \mathrm{~V} \mathrm{DC}$ |
| Power consumption | $\leq 15 \mathrm{~mA}$ |
| Load current | $\leq 150 \mathrm{~mA}$, per output |

NAMUR inductive double limit switch with 2-wire technology

| Number of limit switches | 1 |
| :--- | :--- |
| Output version | acc. to NAMUR |
| Status | Open and closed <br> Control lamp (LED): red, orange <br> and electrical feedback |
| Power supply | 8 V DC through isolating barrier |
| Power consumption | $\leq 1.2 \mathrm{~mA}$ (damped) |
|  | $>2.1 \mathrm{~mA}$ (undamped) |

Electrical specification for mechanical switches

| Voltage <br> $[\mathbf{V}]$ | Maximum inductive load <br> $[$ [A] | Maximium resistance load <br> $[\mathbf{A}]$ |
| :--- | :--- | :--- |
| $125 / 250$ AC | 8 | 8 |
| 24 DC | 5 | 5 |
| 30 DC | 2 | 5 |
| 50 DC | 0.7 | 1 |
| 74 DC | 0.25 | 0.6 |
| 125 DC | 0.03 | 0.4 |
| 250 DC | 0.02 | 0.25 |

## Principle of operation

The duplication rod fitted with 2 cams moves when the valve opens or closes: the movement of a cam past the switch associated with it activates the latter.

When the switch is activated, the light, if there is one, comes on (or goes off on the NAMUR versions) and an electrical signal is transmitted remotely.

This signal is transmitted in accordance with the NAMUR standard on one version of the 1062 ATEX.


Target switch and cam for open valve


Target switch and cam for close valve

## Ordering information for process valve system with electrical position feedback

A complete process valve system consists of an electrical position feedback Type 1062 and a process valve Type 20xx.
The following information is necessary for the selection of a complete system:
-Item no. of the desired electrical position feedback Type 1062 (see Ordering chart on p. 4)
-Item no. of the selected process valve Type 20xx
(see separate datasheet for e.g. Types 2000, 2012, 2030 and 2031)
You order two components and receive a complete assembled and certified valve.
When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the datasheet.


Ordering chart electrical position feedback Type 1062 (actuator size 40-125mm)

Feedback with mechanical switches (change-over contact for UC)

|  | for pneumatic stroke actuator |  |  | for pneumatic rotary actuator |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { n } \\ & \stackrel{7}{0} \\ & \stackrel{0}{0} \end{aligned}$ |  |  |  |  |  |  |
| closed | 40 | 444182 | 444185 | - | - | - |
| open | 40 | 444181 | 444184 | - | - | - |
| open/closed | 40 | 444183 | 444186 | - | - | - |
| closed | 50-80 | 007461 | 005409 | 63 | 431477 | 431489 |
| open | 50-80 | 007462 | 005415 | 63 | 431476 | 431488 |
| open/closed | 50-80 | 007463 | 005416 | 63 | 431478 | 431490 |
| closed | 100-125 | 007464 | 007458 | 100 | 431480 | 431492 |
| open | 100-125 | 007465 | 007459 | 100 | 431479 | 431491 |
| open/closed | 100-125 | 007466 | 007460 | 100 | 431481 | 431493 |

Feedback with induction switches (normally open contacts for DC)

|  | for pneumatic stroke actuator |  |  |  | for pneumatic rotary actuator |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & n \\ & \stackrel{n}{0} \\ & \stackrel{y}{0} \end{aligned}$ |  |  |  |  |  |  |
| closed | 40 | 444188 |  |  | - | - |
| open | 40 | 552653 | 560407 | 560411 | - | - |
| open/closed | 40 | 444189 |  |  | - | - |
| closed | 50-80 | 005422 |  |  | 63 | 431501 |
| open | 50-80 | 005434 | 560408 | 560412 | 63 | 431500 |
| open/closed | 50-80 | 005461 |  |  | 63 | 431502 |
| closed | 100-125 | 007467 |  |  | 100 | 431504 |
| open | 100-125 | 007468 | 560409 | 560413 | 100 | 431503 |
| open/closed | 100-125 | 007469 |  |  | 100 | 431505 |

## Further versions on request

Electrical connection
4-pole M12 cable plug
Voltage
12-30 V DC; 48/110 V DC/AC (mechanical limit switch version)Materials
PPS body and PSU cover
Mechanical limit switch with contact in gold

Additional
Inductive limit switch with output NPN

## Dimensions [mm]



| Actuator size | A | B | C |
| :--- | :--- | :--- | :--- |
| $\varnothing 40$ | $\mathrm{M} 24 \times 1.5$ | 12 | M 5 |
| $\varnothing 50,63$ and 80 | $\mathrm{M} 26 \times 1.5$ | 10 | M 6 |
| $\varnothing 100$ and 125 | $\mathrm{M} 36 \times 2$ | 16 | M 10 |

