fluid under control
valve \& automation

## Flow Switch UR3K-...V



- Soldered/welded connection
- Reed switch
- Low pressure loss
- Compact design
- Threaded connection
- Plug DIN 43650-A / ISO 4400


## Characteristics

The devices function via the principle of a spring-supported paddle, and the magnetic triggering of a reed switch.

## Technical data

| Switch | reed switch |
| :---: | :---: |
| Nominal width | DN 15..80 |
| Process connection | soldered/welded nozzle <br> (further process connections available on request) |
| Switching range | 8.5..248 $/ \mathrm{min}$ for details see |
| $\mathbf{Q}_{\text {max }}$. | to $600 \mathrm{l} / \mathrm{min}$ table "Ranges" |
| Tolerance | $\pm 15$ \% of full scale value |
| Pressure resistance | PN 25 bar |
| Medium temperature | $-20 . .+110{ }^{\circ} \mathrm{C}$ |
| Ambient temperature | $-20 . .+70^{\circ} \mathrm{C}$ |
| Media | water (oils, gases and aggressive media available on request) |
| Wiring | normally open (n.o.) No. 0.372 |
| Switching voltage | max. 230 V AC |
| Switching current | max. 1 A |
| Switching capacity | max. 50 VA |
| Protection class | 2 - safety insulation |
| Ingress protection | IP 65 |
| Electrical connection | plug DIN 43650-A / ISO 4400, optionally for round plug connector M12x1, 4-pole |


| Materials <br> medium-contact | Brass construction: <br> CW614N, CW614N <br> nickelled, 1.4310, <br> 1.4301, hard ferrite, <br> NBR | Stainless steel <br> construction: 1.4305, <br> $1.4571,1.4310$, <br> NBR, hard ferrite <br> PTFE <br> coated, FKM |
| :--- | :--- | :--- |
| Non-medium <br> contact materials | ABS, PA, NBR |  |
| Weight | 0.3 kg |  |
| Installation <br> location | Standard: horizontal inwards flow; switching <br> head not recommended underneath; other <br> installation positions are possible; the <br> installation position affects the switching <br> point and range. |  |

## Ranges

Details in the table correspond to horizontal inwards flow with decreasing flow rate.

| DN | Switching range <br> I/min $\mathrm{H}_{2} \mathrm{O}$ | Types | $\mathbf{Q}_{\text {max. }}$ <br> recommended |
| :---: | :---: | :---: | :---: |
| DN 15 | $8.5-11.0$ | UR3K-015V. | 20 |
| DN 20 | $14.0-19.0$ |  | 40 |
| DN 25 | $15.0-20.0$ | UR3K-025V. | 80 |
| DN 32 | $39.0-52.0$ |  | 100 |
| DN 40 | $49.0-64.0$ |  | 150 |
| DN 50 | $68.0-84.0$ | UR3K-050V. | 200 |
| DN 65 | $127.0-163.0$ |  | 400 |
| DN 80 | $189.0-248.0$ |  | 600 |
|  |  |  |  |

Special ranges are available.

## Dimensions

| DN | Types | H | D | A | B |
| :--- | :--- | :---: | :---: | :---: | :---: |
| DN 15..20 | UR3K-015V. | 18.5 | 13 | - | - |
| DN 25..40 | UR3K-025V. | 27.0 | - | 12 | 16 |
|  | DN 50..80 | UR3K-050V. | 40.5 |  |  |
|  |  |  |  |  |  |



DN15.. 20 DN25.. 80

## Handling and Operation

## Note

- Include straight calming section of $5 \times \mathrm{DN}$ in inlet and outlet
- When tightening the union nut, the connection piece must be countered using an open-ended spanner (SW 19).
- Include a filter if the media are dirty (use magnetic filter for ferritic components).
- It must be ensured that the values given for voltage, current, and power are not exceeded.
- When switched on, a load must be connected in series
- The electrical details apply to ohmic loads. Capacitive, inductive and lamp loads must be operated using a protective circuit.


## Adjustment

To adjust, open the slider. Adjustment is made using the adjustment screw with a lengthways slot; this is located under the valve.

Turn clockwise for a lower switching point; turn anticlockwise for a higher switching point.
After adjustment, close the slider again.
Example: The adjustment range 20 to $27 \mathrm{I} / \mathrm{min}$ corresponds to $7 \mathrm{I} / \mathrm{min}$ Adjustment option in 7 revolutions. Adjustment is therefore $1 \mathrm{I} / \mathrm{min}$ for each revolution.

## Ordering code



O=Option

| 1. | Nominal width |  |  |
| :--- | :--- | :--- | :---: |
|  | 015 | DN 15..20 |  |
|  | 025 | DN $25 . .40$ |  |
|  | 050 | DN $50 . .80$ |  |
| 2. |  |  |  |
|  | V |  |  |
| 3. | soldered/welded nozzle |  |  |
|  | M |  |  |
|  | K |  |  |

## Options

- Connection for round plug-in connector
- Signal lamp red or red/green in the plug DIN 43650-A
- Protective bellows
- Switching ranges for oil or gas
- Special quantity
- Adhesive PVC fitting


## Ordering information

- Specify direction of flow, medium, and switching range.
- For UR2 specify normally closed (n.c.) or normally open (n.o.).
- For oils, state viscosity, temperature and designation (e.g. ISO VG 68) (enquire about range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (enquire about range).

