## Flow switch UR1-...HM / HK



UR1-015HM


UR1-032HM

- Highly reproducible
- Low pressure loss
- Hermetic separation between electrical and hydraulic component
- Stress-fixing of the switching unit by means of plastic head


## 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 32..80 |
| Process connection | brass / stainless steel - <br> Screw-in thread G $1 \frac{1}{4}$. G $1 \frac{1}{2} 2$ or G2"..G3" |
| Switching range | $23.118 \mathrm{l} / \mathrm{min}$ For details see |
| $Q_{\text {max. }}$ | up to $600 \mathrm{l} / \mathrm{min}$ table "Ranges" |
| Hysteresis | Depending on the switching value, minimum $\pm 0.7 \mathrm{l} / \mathrm{min}$ |
| 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 | Wiring 0.225 normally opened | or 'normally closed' |
| :---: | :---: | :---: |
| Switching voltage | 230 V AC |  |
| Switching current | 1 A |  |
| Switch performance | 50 VA |  |
| Cable length | 1.5 m |  |
| Ingress protection | IP 65 |  |
| Protection class | (1PE connection) |  |
| Materials medium-contact | Brass construction: CW614N , 1.4301, 1.4571, 1.4310, Hard ferrite, NBR | Stainless steel construction: 1.4305, 1.4571, 1.4301, 1.4310, Hard ferrite, Viton |
| Non-mediumcontact materials | POM |  |
| Weight | $\begin{array}{ll}\text { UR1-015HM / HK: } & 0.18 \mathrm{~kg} \\ \text { UR1-032HM / HK: } & 0.38 \mathrm{~kg}\end{array}$ |  |
| Installation location | Standard: horizontal inwards flow; switching unit not recommended underneath; other installation positions are possible; the installation position affects the switching point and range. |  |

## Ranges

The adjustment range is suitable for horizontally decreasing flows. Measured in DIN 2448 tube with normal wall thickness.

| Types | DN | Adjustment range <br> I/min $\mathrm{H}_{2} \mathrm{O}$ | $\mathbf{Q}_{\text {max. }}$ <br> recommended |
| :---: | :---: | :---: | :---: |
| UR1-015HM | DN 32 | $23-30$ | 100 |
|  | DN 40 | $33-44$ | 150 |
|  | DN 50 | $38-48$ | 200 |
|  | DN 65 | $60-84$ | 400 |
| UR1-015HK | DN 80 | $81-118$ | 600 |
| UR1-032HK | DN 32 | $23-30$ | 100 |
|  | DN 40 | $33-44$ | 150 |
|  | DN 50 | $38-48$ | 200 |
|  | DN 65 | $60-84$ | 400 |
|  | DN 80 | $81-118$ | 600 |

## Dimensions

UR1-015H.
UR1-032H.


## Handling and operation

## Note

- Include straight calming section of $5 \times$ DN in inlet and outlet
- 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

UR1 - loosen bolts, push the switching current tube into the desired po-
 sition. Retighten the bolts.
Normally closed or normally open Normally closed

## Ordering code

UR1-


O=Option

1. Nominal widths

| 015 | DN $32 . .40$ |
| :--- | :--- |
| 032 | DN $50 . .80$ |

2. Process connection

$$
\text { H } \quad \text { Screw-in thread }
$$

3. Connection material
M Brass

K stainless steel
4. Switching unit options

A O For switching unit ATEX A-U1.1
A The switching head is ordered in addition.

## Options

- Switching ranges for oil or gas
- Soldered copper fitting
- Special values
- Adhesive PVC fitting


## Ordering information

- Specify direction of flow, medium, and switching range.
- 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).

