Senseca Germany GmbH

Tenter Weg 2-8 | 42897 Remscheid | GERMANY Phone +49 2191 9672-0 | Fax +49 2191 9672-40 www.senseca.com | info@senseca.com | WEEE Reg. No. DE 93889386



Product Information

UR3K-010..050G / A M / K

Flow Switch UR3K-...G / A



- Threaded 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

| 0 | | | | | |
|---------------------|---|----------------------------|--|--|--|
| Switch | reed switch | | | | |
| Nominal width | DN 1050 | | | | |
| Process | female thread G ³ / ₈ G 1 | | | | |
| connection | (further process connections available on | | | | |
| | request) | | | | |
| Switching range | 3.569 l/min for details see | | | | |
| Q _{max} . | to 150 l/min table "Ranges" | | | | |
| Tolerance | ±15 % of full scale valu | е | | | |
| Pressure | PN 25 bar | | | | |
| resistance | | | | | |
| Medium | -20+110 °C | | | | |
| temperature | 00 :70 %0 | | | | |
| Ambient temperature | -20+70 °C | | | | |
| Media | water (eile masse and e | | | | |
| Iviedia | water (oils, gases and aggressive media available on request) | | | | |
| Wiring | normally open | | | | |
| VVIIIIIg | (n.o.) No. 0.372 | | | | |
| | | | | | |
| | ļ | Į. | | | |
| | 1 2 | | | | |
| 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 | plug DIN 43650-A / ISO 4400, | | | | |
| connection | optionally for round plug connector M12x1, | | | | |
| | 4-pole | | | | |
| Materials | Brass construction: | Stainless steel | | | |
| medium-contact | CW617N nickelled, | construction: 1.4305, | | | |
| | CW614N nickelled, 1.4310, 1.4301, hard | 1.4571, 1.4310, 1.4310. | | | |
| | ferrite, NBR | Hard ferrite PTFE | | | |
| | coated, FKM | | | | |
| | 1 | , | | | |

| Non-medium contact materials | ABS, PA, NBR | | | |
|------------------------------|---|--|--|--|
| Weight | see table "Dimensions and weights" | | | |
| Installation location | Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range. | | | |

Ranges

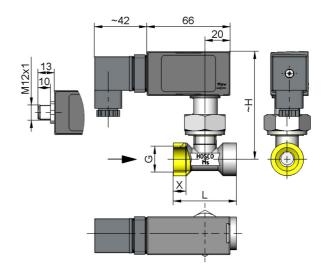
Details in the table correspond to horizontal inwards flow with decreasing flow rate.

| G | DN | Switching range I/min H ₂ O | Types | Q _{max.} recommended |
|---------------------------------|-------|--|---------------|---|
| G 3/8 | DN 10 | 3.5 - 5.0 | UR3K-010G.050 | 10 |
| G 1/2 | DN 15 | 5.0 - 6.5 | UR3K-015G.065 | 20 |
| G 3/4 | DN 20 | 6.0 - 8.5 | UR3K-020G.085 | 40 |
| G 1 | DN 25 | 12.0 - 15.0 | UR3K-025G.150 | 60 |
| G 1 ¹ / ₄ | DN 32 | 20.0 - 27.0 | UR3K-032G.270 | 80 |
| G 1 ¹ / ₂ | DN 40 | 34.0 - 44.0 | UR3K-040G.440 | 100 |
| G 2 | DN 50 | 54.0 - 69.0 | UR3K-050G.690 | 150 |

Special ranges are available.

Dimensions and weights

| G | Types | Н | L | Х | Weight kg |
|---------------------------------|------------|-----|----|----|--------------|
| G 3/8 | UR3K-010GM | 87 | 50 | 10 | 0.45 |
| | UR3K-010GK | | | | 0.50 |
| G 1/2 | UR3K-015GM | | 50 | 10 | 0.40 |
| | UR3K-015GK | | | | 0.45 |
| G 3/4 | UR3K-020GM | 88 | 1 | 12 | 1 |
| | UR3K-020GK | | | | |
| G 1 | UR3K-025GM | 92 | 1 | | |
| | UR3K-025GK | | | | 0.50 |
| G 1 ¹ / ₄ | UR3K-032GM | 96 | 1 | | |
| | UR3K-032GK | | | | 0.60 |
| G 1 ¹ / ₂ | UR3K-040GM | 99 | 1 | | |
| | UR3K-040GK | | | | 0.75 |
| G 2 | UR3K-050GM | 108 | 1 | | 0.85 |
| | UR3K-050GK | | | | 1.05 |



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Product Information

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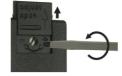
Handling and operation

Note

- Include straight calming section of 5 x DN in inlet and outlet
- When tightening the union nut, the connection piece must be countered using an open-ended spanner (SW 19).
- If the media are dirty, install a filter (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 l/min corresponds to 7 l/min Adjustment option in 7 revolutions. Adjustment is therefore 1 l/min for each revolution.

Ordering code



| 1. | Nominal width | | | | | | | | |
|-----------|-----------------------------|---|---|---|---|---|---|---|---|
| | 010 | DN 10 - G ³ / ₈ | | | | | | | |
| | 015 | DN 15 - G ¹ / ₂ | | | | | | | |
| | 020 | DN 20 - G ³ / ₄ | | | | | | | |
| | 025 | DN 25 - G 1 | | | | | | | |
| | 032 | DN 32 - G 1 ¹ / ₄ | | | | | | | |
| | 040 | DN 40 - G 1 ¹ / ₂ | | | | | | | |
| | 050 | DN 50 - G 2 | | | | | | | |
| 2. | Process | connection | | | | | | | |
| | G | female thread | | | | | | | |
| 3. | Connection material | | | | | | | | |
| | M | brass | | | | | | | |
| | K | stainless steel | | | | | | | |
| 4. | Switching range H₂O | | | | | | | | |
| - | for horizontal inwards flow | | | | | | | | |
| | 050 | 3.5 - 5.0 l/min | | | | | | | • |
| | 065 | 5.0 - 6.5 l/min | | | | | | • | |
| | 085 | 6.0 - 8.5 l/min | | | | | • | | |
| | 150 | 12.0 - 15.0 l/min | | | | • | | | |
| | 270 | 20.0 - 27.0 l/min | | | • | | | | |
| | 440 | 34.0 - 44.0 l/min | | • | | | | | |
| | 690 | 54.0 - 69.0 l/min | • | | | | | | |

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 values
- Soldered copper fitting
- Adhesive PVC fitting
- Male thread G ¹/₂ A brass

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).