

**Product Information**

**MR-008..025GM / K**

**Flow Switch MR**

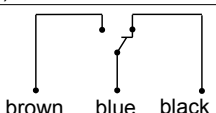


- High switching power
- Compact design

**Characteristics**

Mechanical flow switch, for fluid or gaseous media, with spring-supported piston and magnetic triggering of a reed switch. Robust construction in brass or stainless steel.

**Technical data**

|                                     |  |   |
|-------------------------------------|--|---|
| <b>Switch</b>                       | reed switch  |   |
| <b>Nominal width</b>                | DN 8.0.25  |   |
| <b>Process connection</b>           | female thread G 1/4..G 1 (further process connections available on request)  |   |
| <b>Switching range</b>              | 0.4..60 l/min  | for details see table "Ranges"  |
| <b>Pressure loss</b>                | 0.4..1.9 bar at Q <sub>max.</sub>  |   |
| <b>Q<sub>max.</sub></b>             | to 80 l/min  |   |
| <b>Tolerance</b>                    | ±5 % of full scale value   |   |
| <b>Pressure resistance</b>          | PN 200 bar (with optional display O1 G 1/4..G 3/4 PN 90)   |   |
| <b>Media temperature</b>            | -20..+120 °C   |   |
| <b>Ambient temperature</b>          | -20..+70 °C  |   |
| <b>Media</b>                        | water (oils, gases and aggressive media available on request)  |   |
| <b>Wiring</b>                       | wiring no. 0.213   |          |
| <b>Switching voltage</b>            | Max. 175 V DC / 120 V AC   |   |
| <b>Switching current</b>            | Max. 0.25 A DC / 0.18 A AC   |   |
| <b>Switching capacity</b>           | Max. 5 W / VA  |   |
| <b>Protection class</b>             | 2 - safety insulation  |   |
| <b>Ingress protection</b>           | IP 65  |   |
| <b>Electrical connection</b>        | cable 2.5 m (others cable lengths available on request)  |   |
| <b>Materials medium-contact</b>     | Brass construction: CW614N nickelled, 1.4301, 1.4310, hard ferrite, NBR  | Stainless steel construction: 1.4305, 1.4571, 1.4301, 1.4310, hard ferrite PTFE-coated, FKM |
| <b>Non-medium-contact materials</b> | PA, PVC  |   |
| <b>Weight</b>                       | see table "Dimensions and weights"   |   |
| <b>Installation location</b>        | Standard: horizontal inwards flow from the left; other installation positions are possible; the installation position affects the switching point and range. |   |

**Ranges**

For switching ranges, the details in the table correspond to horizontal inwards flow and decreasing flow rate; for display ranges they correspond to horizontal inwards flow and increasing flow rate.

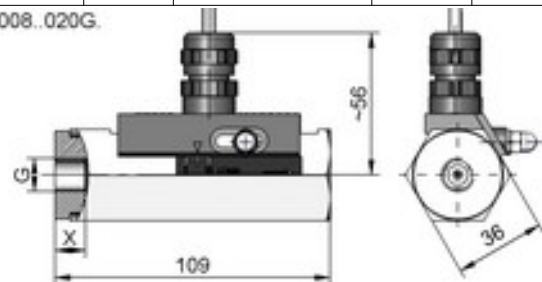
| Switching range l/min H <sub>2</sub> O | Optionally Display range l/min H <sub>2</sub> O | Q <sub>max.</sub> recommended | Pressure loss bar at Q <sub>max.</sub> H <sub>2</sub> O |
|--|---|-------------------------------|---|
| 0.4 - 4                                | 0.5 - 5   | 10                            | 0.4   |
| 1.0 - 10                               | 1.0 - 12  | 20                            | 0.9   |
| 5.0 - 20                               | 5.0 - 25  | 30                            | 0.7   |
| 10.0 - 40                              | 5.0 - 40  | 60                            | 1.9   |
| 20.0 - 60                              | 20.0 - 60                                       | 80                            | 1.6   |

Special ranges are available.

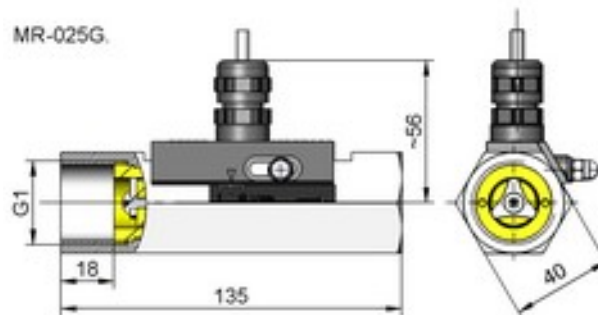
**Dimensions and weights**

|                        | G     | Types    | X  | Weight kg |
|------------------------|-------|----------|----|-----------|
| <b>Brass</b>           | G 1/4 | MR-008GM | 12 | 0.9       |
|                        | G 3/8 | MR-010GM |    |           |
|                        | G 1/2 | MR-015GM |    |           |
|                        | G 3/4 | MR-020GM | 18 | 1.2       |
|                        | G 1   | MR-025GM |    |           |
| <b>Stainless steel</b> | G 1/4 | MR-008GK | 12 | 0.9       |
|                        | G 3/8 | MR-010GK |    |           |
|                        | G 1/2 | MR-015GK |    |           |
|                        | G 3/4 | MR-020GK | 18 | 0.8       |
|                        | G 1   | MR-025GK |    |           |

MR-008..020G.



MR-025G.



**additional weights for options**

Display O1 / Z1                      0.04 kg

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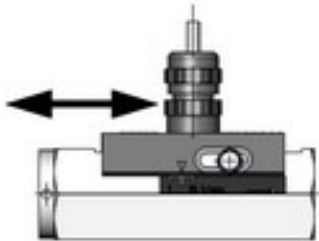
**Handling and Operation**

**Note**

- Install straight calming section of 5 x 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 switch 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**

If it is necessary to set the switching value, the switching head can be adjusted lengthways. When the switching value is reached, the switching unit is fixed in place by fastening bolts.



**Ordering code**

MR  1.  2.  3. **G** 4.  5.

|  |                                     |
|--|-------------------------------------|
| <b>1. Display options</b>  |                                     |
| -  | no mechanical display               |
| O1-  | with measurement display at side O1 |
| <b>2. Nominal width</b>  |                                     |
| 008  | DN 8 - G 1/4                        |
| 010  | DN 10 - G 3/8                       |
| 015  | DN 15 - G 1/2                       |
| 020  | DN 20 - G 3/4                       |
| 025  | DN 25 - G 1                         |
| <b>3. Process connection</b>   |                                     |
| G  | female thread                       |
| <b>4. Connection material</b>  |                                     |
| M  | brass                               |
| K  | stainless steel                     |
| <b>5. Switching range H<sub>2</sub>O for horizontal inwards flow</b> |                                     |
| 004  | 0.4 - 4 l/min                       |
| 010  | 1.0 - 10 l/min                      |
| 020  | 5.0 - 20 l/min                      |
| 040  | 10.0 - 40 l/min                     |
| 060  | 20.0 - 60 l/min                     |



MRO1-

**Options**

- Switching values for oil or gas
- Special values
- Connection for round plug connector M12x1
- Additional switching head
- Damping for gas monitoring
- Switch contact SPDT change over 250 V AC 0.35A 30 VA - increased hysteresis depending on switching value
- Switch contact SPST N.O. 250 VDC 1.5 A 50 W / 265 VAC 1.1 A 50 VA

**Ordering information**

- Specify direction of flow, medium, and switching range.
- For viscous media specify viscosity, temperature, and medium (e.g. ISO VG 68) (enquire about switching range).
- For gases, state pressure (relative or absolute), temperature and medium (e.g. air) (request switching range).