

**Product Information**

**FM-008..015GR**

**Flow Switch FM-...GR**

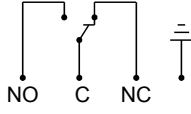


- Adjusted switching value
- Highly reproducible
- Insensitive to dirt
- High switching power

**Characteristics**

The volume flow raises a piston (fitted with a magnet) out from a valve seat against a spring force. The piston uses a magnetic coupling to actuate a hermetically separated micro switch.

**Technical data**

<b>Switch</b>	micro switch	
<b>Nominal width</b>	DN 8..15 (DN 20..80 available on request)	
<b>Process connection</b>	female thread G 1/4..G 1/2	
<b>Adjustment range</b>	0.4..12 l/min	for details see table "Ranges"
<b>Q<sub>max.</sub></b>	to 20 l/min	
<b>Tolerance</b>	±3 % of the switching value, minimum ±0.3 l/min	
<b>Pressure resistance</b>	PN 200 bar	
<b>Medium temperature</b>	-20..+90 °C	
<b>Ambient temperature</b>	-20..+70 °C	
<b>Media</b>	Water (oils and gases available on request)	
<b>Wiring</b>	changeover no. 0.450 	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 6 A	
<b>Protection class</b>	1 - PE connection	
<b>Ingress protection</b>	IP 65	
<b>Electrical connection</b>	plug-in connection on the microswitch 2.8 x 0.5, cable screw gland Pg 9. optionally DIN 43650-A plug	
<b>Materials medium-contact</b>	Rg 5 nickelled, 1.4310, CW614N nickelled, CW614N, NBR, hard ferrite	
<b>Non-medium-contact materials</b>	PS, PA	
<b>Weight</b>	see table "Dimensions and weights"	

<b>Installation location</b>	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.
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**Ranges**

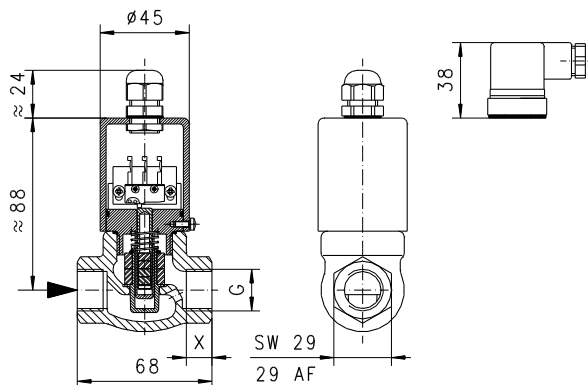
Details in the table correspond to horizontal inwards flow with decreasing flow rate.

G	DN	Switching point l/min H <sub>2</sub> O Choose between	Types	Q <sub>max.</sub> recommended
G 1/4	DN 8	0.4 - 9	FM-008GR009	10
G 3/8	DN 10	0.4 - 10	FM-010GR010	15
G 1/2	DN 15	0.4 - 12	FM-015GR012	20

Special ranges are available

**Dimensions and weights**

G	Types	X	Weight kg
G 1/4	FF-008GR...	12	0.65
G 3/8	FF-010GR...		
G 1/2	FF-015GR...	13	0.60



**Handling and operation**

- Include straight calming section of 5 x DN in inlet and outlet.
- 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.

**Ordering code**

FM -  1.  2.  3.  4.  
 FM -  **G** **R**

1. Nominal width			
008	DN 8 - G 1/4		
010	DN 10 - G 3/8		
015	DN 15 - G 1/2		
2. Process connection			
G	female thread		
3. Connection material			
R	red bronze		
4. Switching point H <sub>2</sub> O can be set as desired between			
009	0.4 - 9 l/min		●
010	0.4 - 10 l/min		●
012	0.4 - 12 l/min	●	

**Options**

- Nominal width DN 20..80
- Adjustment for oil or gas
- Special values
- Plug DIN 43650-A / ISO 4400
- Signal lamp red or red / green in the plug

**Ordering information**

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