

Product Information

Sensors and Instrumentation

**Flow Switch
 VM-...GK**



- Highly reproducible
- Precise, stepless adjustment of the switching value
- High switching power
- Insensitive to dirt
- Short installation length

Characteristics

Mechanical flow switch, for fluid or gaseous media, with no-contact triggering of an adjustable micro switch.

Technical data

Switch	micro switch	
Nominal width	DN 15..50	
Process connection	female thread G 1/2..G 2	
Switching range	2..250 l/min	for details see table "Ranges"
Q _{max.}	to 300 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 100	
Medium temperature	-20..+90 °C	
Ambient temperature	-20..+70 °C	
Media	water (oils, gases and aggressive media available on request)	
Wiring	changeover no. 0.213	
Switching voltage	max. 250 V AC	
Switching current	max. 6 A	
Protection class	2 - safety insulation	
Ingress protection	IP 65	
Connection	plug DIN 43650-A / ISO 4400	
Materials medium-contact	1.4305, 1.4571, 1.4310, CW614N, FKM, hard ferrite PTFE-coated	
Non-medium-contact materials	ABS, PA	
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.
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Ranges

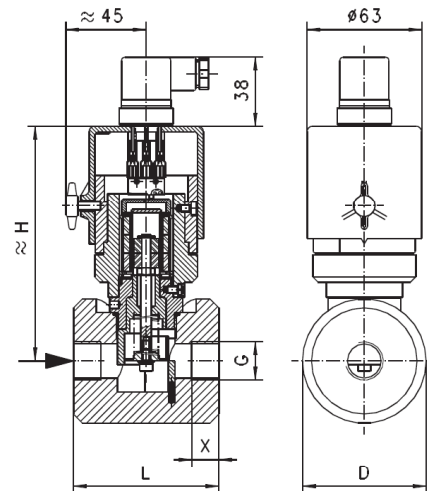
Details in the table correspond to horizontal inwards flow with decreasing flow rate.

G	Nominal width	Switching range l/min H ₂ O	Q _{max.} recommended	Type
G 1/2	DN 15	2 - 6	15	VM-015GK006
		4 - 20	30	VM-015GK020
G 3/4	DN 20	4 - 12	40	VM-020GK012
		10 - 40	50	VM-020GK040
G 1	DN 25	10 - 60	70	VM-025GK060
G 1 1/4	DN 32	20 - 100	120	VM-032GK100
G 1 1/2	DN 40	30 - 150	180	VM-040GK150
G 2	DN 50	50 - 250	300	VM-050GK250

Special ranges are available

Dimensions and weights

G	Types	H	L	D	X	Weight kg
G 1/2	VM-015GK	139	80	68	15	2.8
	VM-020GK				16	2.6
	VM-025GK				18	2.5
G 1 1/4	VM-032GK	141	95	78	24	3.5
G 1 1/2	VM-040GK	152	105	88	25	4.5
G 2	VM-050GK	154	120	102	27	6.7



Product Information

Handling and operation

Note

- Include 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 switched on, a load must be connected in series.
- The electrical details apply to ohmic loads. Capacitive and inductive loads must be operated using a protective circuit.

Adjustment

To adjust the switching point, the fixing screw for the switching head must be loosened. The switching head can then be rotated. Turning to the right increases the switching point, and vice-versa. Then retighten the fixing screw.



Ordering code

VM - 1. 2. 3. 4. 5.

1. Nominal width	
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	
K	stainless steel
4. Switching range H₂O for horizontal inwards flow	
006	2 - 6 l/min
012	4 - 12 l/min
020	4 - 20 l/min
040	10 - 40 l/min
060	10 - 60 l/min
100	20 - 100 l/min
150	30 - 150 l/min
250	50 - 250 l/min
5. Optionally for ATEX	
A	for switching head ATEX A-V2 or A-V3 (The switching head is ordered in addition)

Options

- Special plugs, Tuchel / Harting
- Signal lamp red or red / green in the plug DIN 43650-A
- Other signal lamp
- Temperature display 0..120 °C
- Temperature monitoring 40..90 °C
- Temperature resistant up to 150 °C
- Metal cap
- Gold contact microswitch 125 V AC / 30 V DC, 100 mA
- Germanischer Lloyd
- Switching ranges for oil or gas
- Special values

Ordering information

- Specify direction of flow, medium, and switching range.
- For oils. State viscosity, temperature and designation (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).