

**Product information**

**Flow switch VM-...FG**



- Highly reproducible
- High switching capacity
- Insensitive to dirt
- DIN flange housing
- Precise setting of the switching valve by means of a 170° scale / setting diagram

**Characteristics**

Mechanical flow switch, for fluid media, with no-contact triggering of an adjustable microswitch. Robust construction in grey iron material.

**Technical data**

<b>Switch</b>	Microswitch	
<b>Nominal width</b>	DN 15.0.50	
<b>Process connection</b>	flange	
<b>Adjustment range</b>	5..4000 l/min	For details see table "Ranges"
<b>Q<sub>max.</sub></b>	up to 5000 l/min	
<b>Hysteresis</b>	Depending on the switching value, minimum 3 l/min	
<b>Tolerance</b>	±5 % of full scale value	
<b>Pressure resistance</b>	PN 16 bar	
<b>Medium temperature</b>	-20..+90 °C	
<b>Ambient temperature</b>	-20..+70 °C	
<b>Media</b>	Water, oils (gases and aggressive media available on request)	
<b>Wiring</b>	Transformer No. 0.213	
<b>Switching voltage</b>	max. 250 V AC	
<b>Switching current</b>	max. 5 A	
<b>Protection class</b>	2 - Safety insulation	
<b>Ingress protection</b>	IP 44	
<b>Connection</b>	Plug DIN 43650-A / ISO 4400	
<b>Materials medium-contact</b>	1.4310, grey iron GG25, CW614N, NBR, Klingerit, hard ferrite	

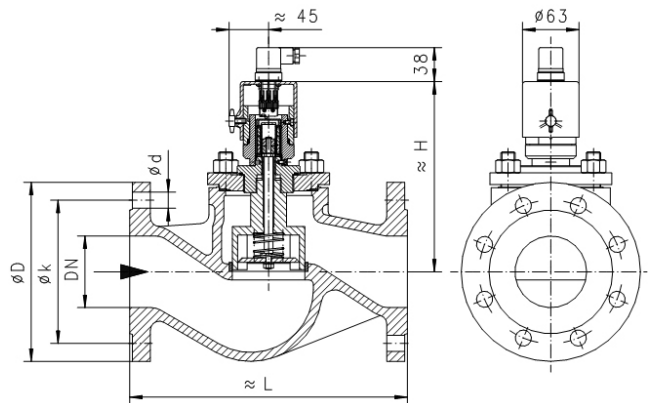
<b>Non-medium-contact materials</b>	ABS
<b>Weight</b>	see table "Dimensions and weights"
<b>Installation location</b>	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

**Ranges**

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

Type	Nominal width	Adjustment range l/min H <sub>2</sub> O	Q <sub>max.</sub> recommended
VM-015FG020	DN 15	5- 20	30
VM-020FG040	DN 20	10- 40	60
VM-025FG060	DN 25	20- 60	80
VM-032FG100	DN 32	30- 100	135
VM-040FG150	DN 40	50- 150	200
VM-050FG250	DN 50	100- 250	350
VM-065FG400	DN 65	150- 400	500
VM-080FG600	DN 80	200- 600	800
VM-100FG1000	DN 100	350- 1000	1250
VM-150FG2000	DN 150	700- 2000	2500
VM-200FG4000	DN 200	1000- 4000	5000

**Dimensions and weights**



Overall length DIN 3202, range F1  
Flange DIN 2533 PN 16  
Flange size DIN 2501 PN 16  
Sealing bar DIN 2526 form C

Types	H mm	L mm	D mm	X mm	Weight kg
VM-015FG020	170	130	95	65	3.2
VM-020FG040	170	150	105	75	4.2
VM-025FG060	178	160	115	85	4.7
VM-032FG100	178	180	140	100	6.6
VM-040FG150	189	200	150	110	8.0
VM-050FG250	192	230	165	125	11.2
VM-065FG400	209	290	185	145	13.8
VM-080FG600	224	310	200	160	21.0
VM-100FG1000	241	350	220	180	30.5
VM-150FG2000	302	480	285	240	66.0

**Product information**

VM-200FG4000	360	600	340	295	124.0
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**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.

VM -  **F**  **G**

<b>1. Nominal width</b>	
015	DN 15
020	DN 20
025	DN 25
032	DN 32
040	DN 40
050	DN 50
065	DN 65
080	DN 80
100	DN 100
150	DN 150
200	DN 200
<b>2. Process connection</b>	
F	flange
<b>3. Connection material</b>	
G	Grey iron
<b>4. Adjustment range H<sub>2</sub>O for horizontal inwards flow</b>	
020	5 - 20 l/min
040	10 - 40 l/min
060	20 - 60 l/min
100	30 - 100 l/min
150	50 - 150 l/min
250	100 - 250 l/min
400	150 - 400 l/min
600	200 - 600 l/min
1000	350 - 1000 l/min
2000	700 - 2000 l/min
4000	1000 - 4000 l/min
<b>5. Optionally for ATEX</b>	
A	For switching heat ATEX A-V2 or A-V3 (The switching head is ordered in addition) 

**Options**

- Other signal lamp
- Temperature display 0..120 °C
- Temperature monitoring 40..90 °C
- Temperature resistant up to 150 °C
- Protection class IP 65
- Metal cap
- Gold contact microswitch 125 V AC / 30 V DC, 100 mA
- Germanischer Lloyd (Type VR)
- Switching ranges for oil or gas
- Special values
- Selected hysteresis

**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).