

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

Switch	Microswitch	
Nominal width	DN 15...150	
Process connection	flange	
Adjustment range	5..2000 l/min	For details see table "Ranges"
Q_{max.}	up to 2500 l/min	
Hysteresis	Depending on the switching value, minimum 3 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 16	
Medium temperature	-20..+90 °C	
Ambient temperature	-20..+70 °C	
Media	Water, oils (aggressive media available on request)	
Wiring	Transformer No. 0.213	
Switching voltage	max. 250 V AC	
Switching current	max. 5 A	
Protection class	2 - Safety insulation	
Ingress protection	IP 44	
Connection	Plug DIN 43650-A / ISO 4400	
Materials medium-contact	1.4310, grey iron GG25, CW614N, NBR, Klingerit, hard ferrite	

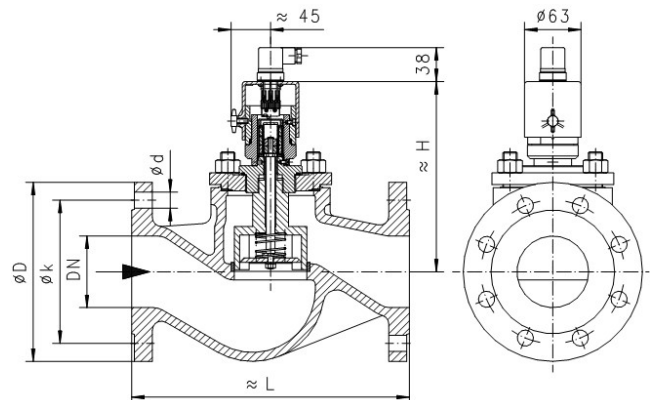
Non-medium-contact materials	ABS
Weight	see table "Dimensions and weights"
Installation location	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

Ranges

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

Type	Nominal width	Adjustment range l/min H ₂ O	Q _{max.} 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

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

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 ferri- tic 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 in- ductive 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

1. Nominal width																				
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																			
2. Process connection		F	flange																	
3. Connection material		G	Grey cast iron																	
4. Adjustment range H₂O for horizontal inwards flow																				
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	●																		
5. Optionally for ATEX		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
- Switching ranges for oil
- 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).