

Product Information

Flow Switch VD-...GR



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

Characteristics

The volume flow raises a piston (fitted with a magnet) out from a valve seat against a spring force. The piston actuates a hermetically separated reed switch.

Technical data

Switch	reed switch	
Nominal width	DN 8..80	
Process connection	female thread G 1/4..G 3	
Switching range	1..600 l/min	for details see table "Ranges"
Q_{max.}	to 720 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	G 1/4..G 1 - PN 25 bar G 1 1/4..G 3 - PN 16 bar	
Medium temperature	-20..+120 °C	
Ambient temperature	-20..+70 °C	
Media	water (oils and gases available on request)	
Wiring	changeover no. 0.213	
Switching voltage	max. 175 V DC / 120 V AC	
Switching current	max. 0.25 A DC / 0.18 AAC	
Switching capacity	max. 5 W / VA	
Protection class	2 - safety insulation	
Ingress protection	IP 44, optionally IP 65	
Connection	plug DIN 43650-A / ISO 4400	
Materials medium-contact	Rg 5 / Rg 6 nickelled, POM, 1.4310, CW614N, NBR, hard ferrite	
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.

Ranges

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

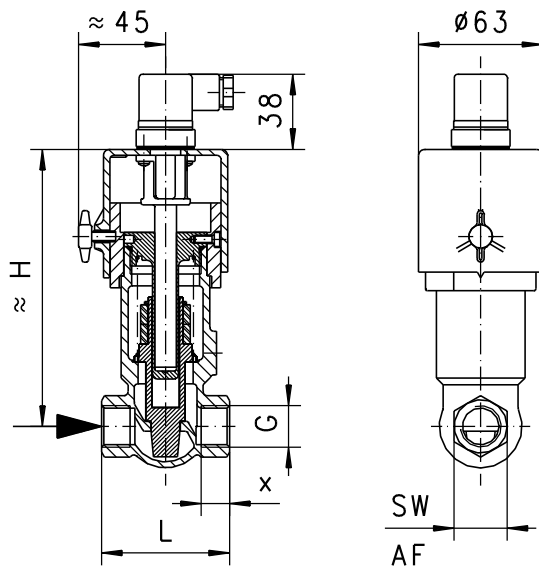
G	Nominal width	Switching range l/min H ₂ O	Q _{max.} recommended	Type
G 1/4	DN 8	1 - 10 4 - 20 10 - 40 20 - 60	15	VD-008GR010
			25	VD-008GR020
G 3/8	DN 10		20	VD-010GR010
			30	VD-010GR020
G 1/2	DN 15		20	VD-015GR010
			30	VD-015GR020
G 3/4	DN 20		20	VD-020GR010
			40	VD-020GR020
			60	VD-020GR040
			80	VD-020GR060
G 1	DN 25	20	VD-025GR010	
		40	VD-025GR020	
		60	VD-025GR040	
		85	VD-025GR060	
G 1 1/4	DN 32	90	VD-032GR040	
		100	VD-032GR060	
		145	VD-032GR100	
		200	VD-032GR150	
G 1 1/2	DN 40	100	VD-040GR060	
		150	VD-040GR100	
		220	VD-040GR150	
		250	VD-050GR150	
G 2	DN 50	290	VD-050GR200	
		600	VD-080GR330	
G 3	DN 80	720	VD-080GR600	

Special ranges are available

Product Information

Dimensions and weights

G	Types	H	L	SW	X	Weight kg		
G 1/4	VD-008GR	150	65	29	12	1.0		
G 3/8	VD-010GR				14			
G 1/2	VD-015GR							
G 3/4	VD-020GR							
G 1	VD-025GR	156	80	32	16	1.1		
G 1 1/4	VD-032GR				18	1.3		
G 1 1/2	VD-040GR				113	59	14	2.8
G 2	VD-050GR				137	72	17	4.0
G 3	VD-080GR	148	100	23	7.0			



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, inductive and lamp 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

VD - 1. 2. 3. 4. 5.

VD - G R

1. Nominal width	
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
032	DN 32 - G 1 1/4
040	DN 40 - G 1 1/2
050	DN 50 - G 2
080	DN 80 - G 3
2. Process connection	
G	female thread
3. Connection material	
R	red bronze
4. Switching range H ₂ O for horizontal inwards flow	
010	1 - 10 l/min
020	4 - 20 l/min
040	10 - 40 l/min
060	20 - 60 l/min
100	30 - 100 l/min
150	50 - 150 l/min
200	100 - 200 l/min
330	180 - 330 l/min
600	300 - 600 l/min
5. Optionally for ATEX	
A	for switching head ATEX A-V1 (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
- Protection class IP 65
- Temperature display 0..120 °C
- Temperature monitoring 40..90 °C
- Temperature resistant up to 150 °C
- Metal cap
- Switch contact SPDT change over 250 V AC 0,35 A 30 VA - increased hysteresis depending on switching value. Only available with fixed switch point.
- Switching ranges for oil or gas
- Special values
- Internal parts brass or stainless steel

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).