

Product Information

Sensors and Instrumentation

Flow Switch
VD-...GK

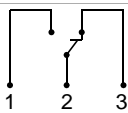


- Highly reproducible
- Precise, stepless adjustment of the switching value
- Insensitive to dirt
- Short installation length

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 15..50	
Process connection	female thread G 1/2..G 1	
Switching range	1..200 l/min	for details see table "Ranges"
Q_{max.}	to 290 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 100 bar	
Medium temperature	-20..+120 °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. 1.5 A	
Switching capacity	max. 50 VA	
Protection class	2 - safety insulation	
Ingress protection	IP 44, optionally IP 65	
Connection	Plug DIN 43650-A / ISO 4400	
Materials medium-contact	1.4305, 1.4571, 1.4310, FKM, hard ferrite	
Non-medium-contact materials	PTFE-coated	
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

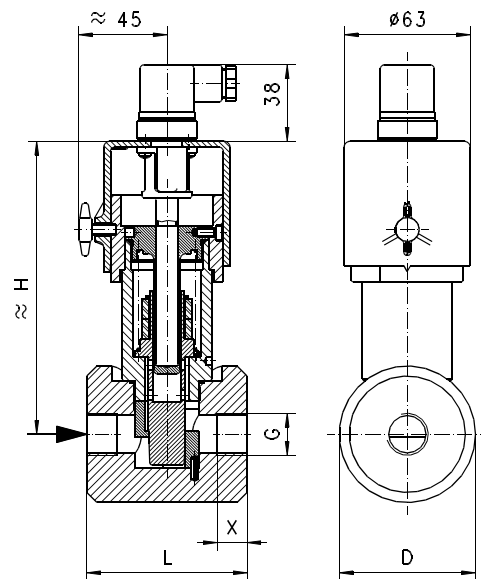
Details in the table correspond to horizontal inwards flow with decreasing flow rate.

G	Nominal width	Switching range l/min H ₂ O	Q _{max.} recommended	Type
G 1/2	DN 15	1 - 10	20	VD-015GK010
			30	VD-015GK020
G 3/4	DN 20	4 - 20	40	VD-020GK020
				VD-020GK040
G 1	DN 25	10 - 40	60	VD-025GK040
				VD-025GK060
G 1 1/4	DN 32	20 - 60	100	VD-032GK060
				VD-032GK100
G 1 1/2	DN 40	30 - 100	150	VD-040GK100
				VD-040GK150
G 2	DN 50		250	VD-050GK150
		100 - 200	290	VD-050GK200

Special ranges are possible

Dimensions and weights

G	Types	H	L	D	X	Weight kg
G 1/2	VD-015GK	166	80	68	15	2.8
G 3/4	VD-020GK				16	2.6
G 1	VD-025GK				18	2.5
G 1 1/4	VD-032GK	180	95	78	24	3.7
G 1 1/2	VD-040GK	186	105	88	25	4.8
G 2	VD-050GK	194	120	102	27	7.0



Product Information

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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, 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

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

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									
010	1 - 10 l/min								●
020	4 - 20 l/min								● ●
040	10 - 40 l/min								● ● ●
060	10 - 60 l/min								● ●
	20 - 60 l/min								● ● ●
100	20 - 100 l/min								● ● ●
	30 - 100 l/min								● ● ● ●
150	50 - 150 l/min								● ● ● ● ●
200	100 - 200 l/min								● ● ● ● ● ●
5. Optionally for ATEX									
A	for switching head ATEX A-V1 (The switching head is ordered in addition)								Ex

Options

- Special plugs, Tuchel / Harting
- Signal lamp red or red / green in the plug DIN 43650-A
- Other signal lamp
- Ingress protection P 65
- Temperature display 0..120 °C
- Temperature monitoring 40..90 °C
- Temperature resistant up to 150 °C
- Metal cap
- Rhodium contact 250 V AC, 0.5 A, 30 VA
- Solid metal – Ms / VA
- GL certified (types VR)
- Switching ranges for oil or gas
- Special values
- Internal parts are 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).