

# PÍSTOVÝ HLÍDAČ PRŮTOKU VD-...GR

## Flow Switch VD-...GR

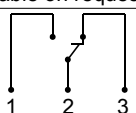


- Highly reproducible
- Precise, stepless adjustment of the switching value
- Insensitive to dirt
- Short installation length

### 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

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

<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.

G	Nominal width	Switching range l/min H <sub>2</sub> O	Q <sub>max.</sub> recommended	Type	
G 1/4	DN 8	1 - 10 4 - 20	15	VD-008GR010	
G 3/8	DN 10		25	VD-008GR020	
			20	VD-010GR010	
			30	VD-010GR020	
G 1/2	DN 15	10 - 40 20 - 60	20	VD-015GR010	
			30	VD-015GR020	
G 3/4	DN 20		20	VD-020GR010	
			40	VD-020GR020	
G 1	DN 25	1 - 10 4 - 20	60	VD-020GR040	
			80	VD-020GR060	
			20	VD-025GR010	
			40	VD-025GR020	
G 1 1/4	DN 32	10 - 40 20 - 60	60	VD-025GR040	
			85	VD-025GR060	
			90	VD-032GR040	
			100	VD-032GR060	
G 1 1/2	DN 40	30 - 100 50 - 150	145	VD-032GR100	
			200	VD-032GR150	
			100	VD-040GR060	
			150	VD-040GR100	
G 2	DN 50	50 - 150	220	VD-040GR150	
			250	VD-050GR150	
G 2 1/2	DN 65		100 - 200	290	VD-050GR200
				400	VD-065GR200
G 3	DN 80	180 - 330	475	VD-065GR330	
			600	VD-080GR330	
		300 - 600	720	VD-080GR600	

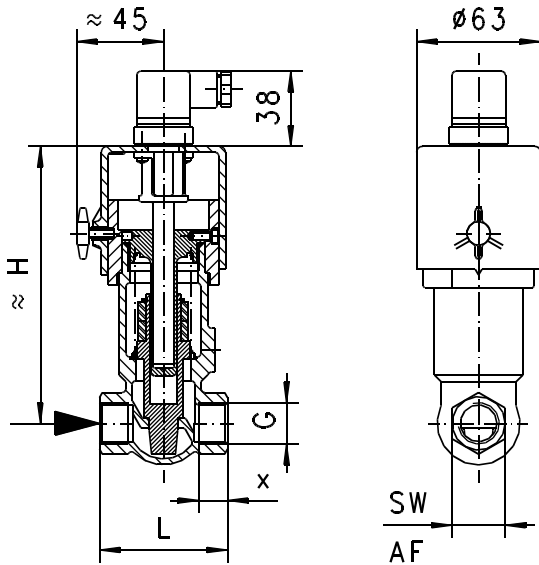
Special ranges are available

# PÍSTOVÝ HLÍDAČ PRŮTOKU VD-...GR



## 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				41	18	1.3
G 1 1/2	VD-040GR				113	59	14
G 2	VD-050GR		137	72	17	4.0	
G 2 1/2	VD-065GR		160	85	26	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											
065	DN 65 - G 2 1/2											
080	DN 80 - G 3											
2. Process connection												
G	female thread											
3. Connection material												
R	red bronze											
4. Switching range H <sub>2</sub> 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, Tichel / 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
- SPST N.O.: 250 V DC; 1.5 A; 50 W / 265 V AC; 1.1 A; 50 VA
- 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
- Shock proof with increased switch hysteresis 250 V AC; 1.5 A; 50 VA

## 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).