

**Product Information**

**Sensors and Instrumentation**

**Flow switch VD-...FR**



- Highly reproducible
- Insensitive to dirt
- DIN flange housing
- Precise setting of the switching valve by means of a 180° scale / setting diagram

**Characteristics**

Mechanical flow switch, for fluid or gaseous media, with no-contact triggering of an adjustable Reed contact. Robust construction in gunmetal material.

**Technical data**

<b>Switch</b>	Reed switch	
<b>Nominal width</b>	DN 15 – 100	
<b>Process connection</b>	flange	
<b>Switching range</b>	1 – 200 l/min	For details see table "Ranges"
<b>Q<sub>max.</sub></b>	up to 950 l/min	
<b>Hysteresis</b>	Depending on the switching value, minimum 0.3 l/min	
<b>Tolerance</b>	±5 % of full scale value	
<b>Pressure resistance</b>	PN 16 bar	
<b>Medium temperature</b>	-20 – +120 °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. 1.5 A	
<b>Switch performance</b>	max. 50 VA	
<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.gunmetal Rg5, POM, CW614N, NBR, hardferrite	

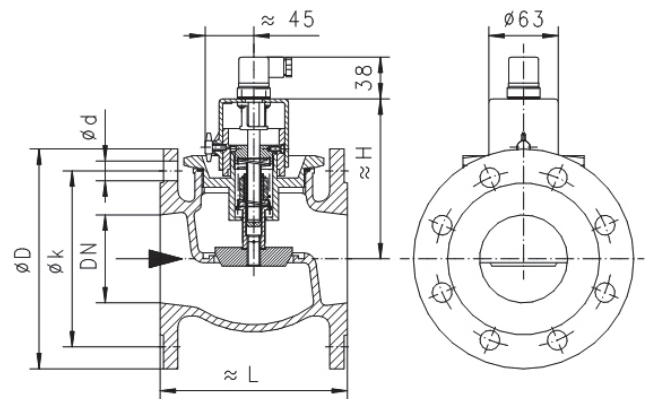
<b>Non-medium-contact materials</b>	ABS
<b>Weight</b>	see table "Dimensions and weights"
<b>Installation location</b>	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

**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	
VD-015FR...	DN 15	2 - 8	4 - 20	20	30
VD-020FR...	DN 20	4 - 20	10 - 40	40	55
VD-025FR...	DN 25	10 - 40	20 - 60	60	80
VD-032FR...	DN 32	20 - 60	30 - 100	100	135
VD-040FR...	DN 40	30 - 100	50 - 200	150	270
VD-050FR...	DN 50	50 - 200	100 - 250	270	340
VD-065FR...	DN 65	100 - 250	150 - 300	400	
VD-080FR...	DN 80	150 - 300	300 - 450	600	
VD-100FR...	DN 100	200 - 400	350 - 500	950	

**Dimensions and weights**



Flange size DIN 2501 PN 16  
Sealing bar DIN 2526 form C

Types	H mm	L mm	D mm	k mm	d mm	Weight kg
VD-015FR...	180	65	95	65	4x14	2.0
VD-020FR...	152	80	105	75	4x14	2.5
VD-025FR...	164	90	115	85	4x14	2.8
VD-032FR...	160	95	140	100	4x18	4.1
VD-040FR...	160	110	150	110	4x18	5.0
VD-050FR...	160	125	165	125	4x18	6.5
VD-065FR...	160	150	185	145	4x18	9.1
VD-080FR...	160	170	200	160	8x18	11.6
VD-100FR...	250	205	220	180	8x18	22.0

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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, 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.  F  3.  R  4.  5.

<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
<b>2. Process connection</b>	
F	flange
<b>3. Connection material</b>	
R	Gunmetal
<b>4. Adjustment range H<sub>2</sub>O for horizontal inwards flow</b>	
008	2 - 8 l/min
020	4 - 20 l/min
040	10 - 40 l/min
060	20 - 60 l/min
100	30 - 100 l/min
200	50 - 200 l/min
250	100 - 250 l/min
300	150 - 300 l/min
400	200 - 400 l/min
450	300 - 450 l/min
500	350 - 500 l/min
<b>5. Optionally for ATEX</b>	
A	For ATEX A-V1 switching head (The switching head is ordered in addition) 

**Options**

- Signal lamp
- Temperature display 0 – 120 °C
- Temperature monitoring 40 – 90 °C
- Temperature resistant up to 150 °C
- Protection class IP 65
- Metal cap
- Germanischer Lloyd (Type VR)
- Switching ranges for oil or gas
- Special values
- Selected hysteresis
- Rhodium contact

**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).