

## Flow switch VD-...FT

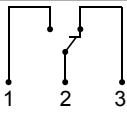


- Highly reproducible
- Insensitive to dirt
- DIN flange housing
- Precise setting of the switching valve by means of a 180° scale / setting diagram

### Characteristics

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

### Technical data

<b>Switch</b>	Reed switch	
<b>Nominal width</b>	DN 15..300	
<b>Process connection</b>	flange	
<b>Adjustment range</b>	2..1600 l/min	For details see table "Ranges"
<b>Q<sub>max.</sub></b>	up to 8000 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 40 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>Electrical data (without EX)</b>	175 V DC, 0.25 A, 5 W / 120 V AC, 0.18 A, 5 VA	
<b>Electrical data (with EX)</b>	250 V AC, 1.5 A, 50 VA	
<b>Electrical data (optional)</b>	normally open contact, 250 V DC, 1.5 A, 50 W / 265 V AC, 1.1 A, 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, Cast steel GSC 25, CW614N, POM, NBR, Klingerit, hardferrite	

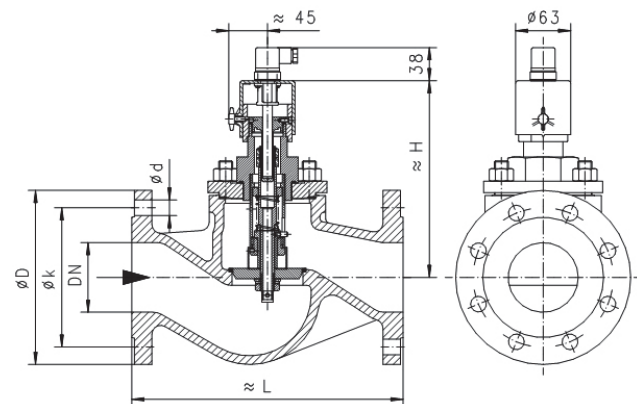
<b>Non-medium-contact materials</b>	ABS
<b>Weight</b>	see table "Dimensions and weights"
<b>Installation location</b>	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

### Ranges

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

Type	Nominal width	Adjustment range		Q <sub>max.</sub> recommended	
		l/min H <sub>2</sub> O			
VD-015FT...	DN 15	2 - 8	4 - 20	20	30
VD-020FT...	DN 20	4 - 20	10 - 40	40	55
VD-025FT...	DN 25	10 - 40	20 - 60	60	80
VD-032FT...	DN 32	20 - 60	30 - 100	100	135
VD-040FT...	DN 40	30 - 100	50 - 200	150	270
VD-050FT...	DN 50	50 - 200	100 - 250	270	340
VD-065FT...	DN 65	100 - 250	150 - 300	400	
VD-080FT...	DN 80	150 - 300	300 - 450	600	
VD-100FT...	DN 100	200 - 400	350 - 500	950	
VD-150FT...	DN 150	600 - 750	700 - 950	2000	
VD-200FT...	DN 200	850 - 1050	1050 - 1250	4000	
VD-250FT...	DN 250	1100 - 1300	1200 - 1400	6000	
VD-300FT...	DN 300	1300 - 1500	1400 - 1600	8000	

### Dimensions and weights



Overall length DIN 3202, range F1  
Flange DIN 2545 PN 40  
Flange size DIN 2501 PN 40  
Sealing bar DIN 2526 form C

Types	H mm	L mm	D mm	k mm	d mm	Weight kg
VD-015FT...	180	130	95	65	4x14	4.0
VD-020FT...	180	150	105	75	4x14	4.4
VD-025FT...	190	160	115	85	4x14	6.3
VD-032FT...	190	180	140	100	4x18	8.2
VD-040FT...	210	200	150	110	4x18	11.1
VD-050FT...	220	230	165	125	4x18	12.8
VD-065FT...	230	290	185	145	8x18	23.5
VD-080FT...	240	310	200	160	8x18	29.0
VD-100FT...	260	350	235	190	8x22	36.0
VD-150FT...	330	480	300	250	8x26	85.0

VD-200FT...	390	600	375	320	12x30	152.0
VD-250FT...	450	730	450	385	12x33	212.0
VD-300FT...	490	850	515	450	16x33	309.0

### Handling and operation

#### Note

- Include straight calming section of 5 x DN in inlet and outlet.
- If the media are dirty, install a filter (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 -  F  T

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
200	DN 200
250	DN 250
300	DN 300

2. Process connection	
F	flange


  

3. Connection material	
T	Cast steel

4. Adjustment range H <sub>2</sub> O for horizontal inwards flow	
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
750	600 - 750 l/min
950	700 - 950 l/min
1050	850 - 1050 l/min
1250	1050 - 1250 l/min
1300	1100 - 1300 l/min
1400	1200 - 1400 l/min
1500	1300 - 1500 l/min
1600	1400 - 1600 l/min

5. Optionally for ATEX	
A	For ATEX A-V1 switching head (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
- Germanischer Lloyd (Type VR)
- Switching ranges for oil or gas
- Special values
- Selected hysteresis
- Rhodium contact (250 VAC, 0,5 A, 30 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).