

Flow switch VD-...FK

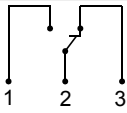


- Highly reproducible
- Insensitive to dirt
- DIN flange housing
- Precise setting of the switching valve by means of a 180° scale / setting diagram

Characteristics

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

Technical data

Switch	Reed switch	
Nominal width	DN 15..150	
Process connection	flange	
Adjustment range	2 ..950 l/min	For details see table "Ranges"
Q_{max.}	up to 2000 l/min	
Hysteresis	Depending on the switching value, minimum 0.3 l/min	
Tolerance	±5 % of full scale value	
Pressure resistance	PN 40 bar	
Medium temperature	-20..+120 °C	
Ambient temperature	-20..+70 °C	
Media	Water, oils (gases and aggressive media available on request)	
Wiring	Transformer No. 0.213	
Electrical data (without EX)	175 V DC, 0.25 A, 5 W / 120 V AC, 0.18 A, 5 VA	
Electrical data (with EX)	250 V AC, 1.5 A, 50 VA	
Electrical data (optional)	normally open contact, 250 V DC, 1.5 A, 50 W / 265 V AC, 1.1 A, 50 VA	
Protection class	2 - Safety insulation	
Ingress protection	IP 44	
Connection	Plug DIN 43650-A / ISO 4400	
Materials medium-contact	1.4408, Stainless steel, 1.4571, POM, 1.4310, 1.4571, Viton, Klingerit, hard ferrite	

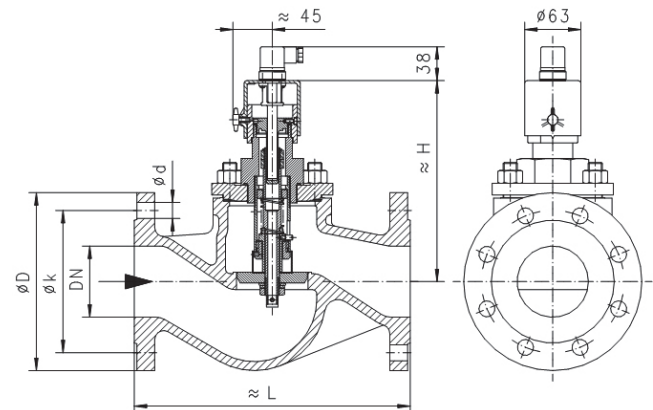
Non-medium-contact materials	ABS
Weight	see table "Dimensions and weights"
Installation location	Standard: horizontal inwards flow; switching head not recommended underneath; other installation positions are possible; the installation position affects the switching point and range.

Ranges

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

Type	Nominal width	Adjustment range		Q _{max.} recommended	
		l/min H ₂ O			
VD-015FK...	DN 15	2 - 8	4 - 20	20	30
VD-020FK...	DN 20	4 - 20	10 - 40	40	55
VD-025FK...	DN 25	10 - 40	20 - 60	60	80
VD-032FK...	DN 32	20 - 60	30 - 100	100	135
VD-040FK...	DN 40	30 - 100	50 - 200	150	270
VD-050FK...	DN 50	50 - 200	100 - 250	270	340
VD-065FK...	DN 65	100 - 250	150 - 300	400	
VD-080FK...	DN 80	150 - 300	300 - 450	600	
VD-100FK...	DN 100	200 - 400	350 - 500	950	
VD-150FK...	DN 150	600 - 750	700 - 950	2000	

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-015FK...	180	130	95	65	4x14	3.3
VD-020FK...	180	150	105	75	4x14	5.4
VD-025FK...	190	160	115	85	4x14	5.8
VD-032FK...	190	180	140	100	4x18	7.2
VD-040FK...	210	200	150	110	4x18	8.8
VD-050FK...	220	230	165	125	4x18	10.4
VD-065FK...	230	290	185	145	8x18	16.5
VD-080FK...	240	310	200	160	8x18	19.7
VD-100FK...	260	350	235	190	8x22	26.0
VD-150FK...	330	480	300	250	8x26	57.0

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 ferrous 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 K

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
2. Process connection	
F	flange
3. Connection material	
K	stainless steel
4. Adjustment range H ₂ 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
5. Optionally for ATEX	
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 (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).