

## Differential pressure switch series VD

with pneumatic switch valve  
Accuracy: ±1 %

### Features

- Ambient temperature -20 ... 70 °C
- Suitable for hazardous area
- 5/2 way pneumatic valve
- Pneumatic operation pressure 2 ... 10 bar or 1 ... 3 bar
- Wetted parts available in several materials
- High static pressure up to 140 bar

### Ranges

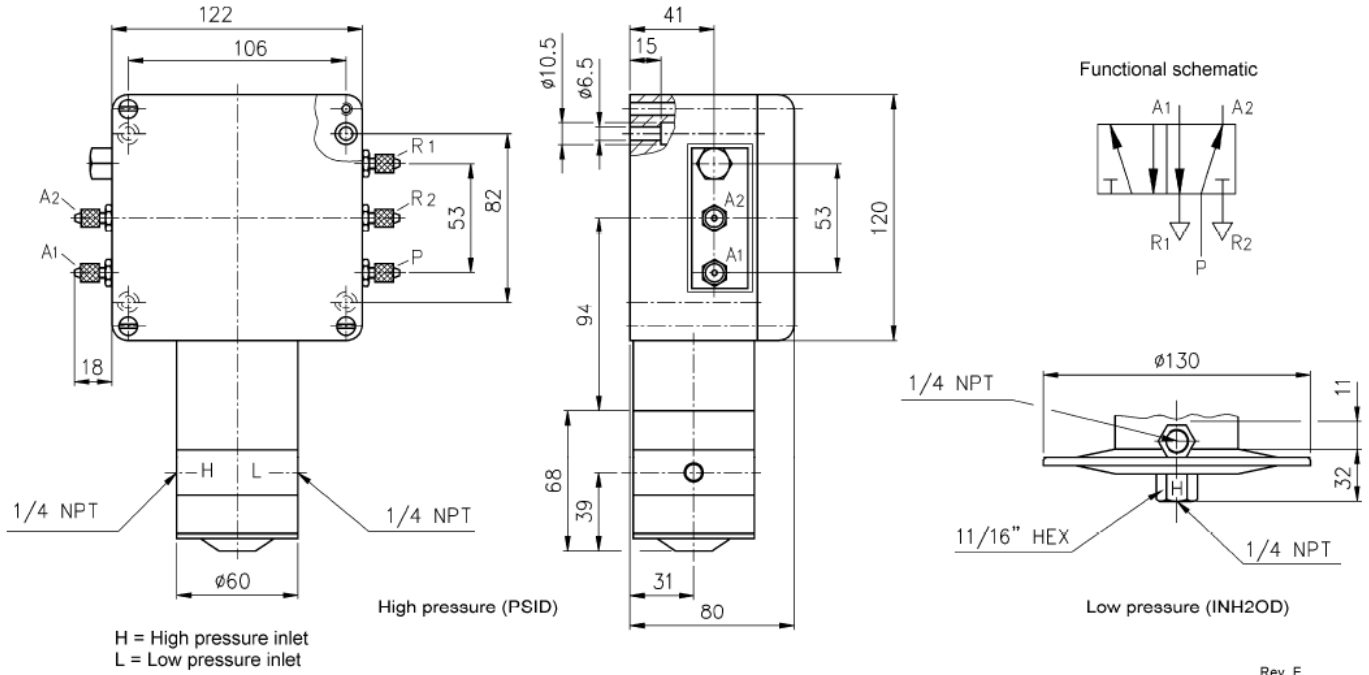
70 mbar diff. up to 42 bar diff.  
30 in. H<sub>2</sub>O up to 600 psid

### Applications

Chemical and petrochemical industry  
Machine and apparatus construction  
Food and beverage industry



Technical specification	VD series
Construction	Weatherproof
Switch functions	One setpoint, 5/2 way pneumatic valve (see functional schematic)
Adjustable range	From 15 % to 100 %, below 15 % consult factory
Deadband	From 0,5 % to 15 % F.S., depending on material, range and pneumatic valve
Measuring principle	Diaphragm-piston-cylinder-system
Range [mbar]	75 150 250 375
[bar]	1 2 4 6 7 14 28 42
Limits (pressure ranges)	mbar 1 to 6 bar 7 to 14 bar 28 bar 42 bar
Proof pressure [bar]	0,37 35 69 69 138
Burst pressure [bar]	1,5 138 276 551 551
	Optional 100 bar static pressure for the ranges 1 bar and 2 bar (only diaphragm Buna N or Viton)
Pressure type	Differential pressure
Process connection	¼ NPT female (standard), ½ NPT male, ½ NPT female G ½ B male, M20x1,5 (metric connections with adapter), others on request
Connection location	For mbar ranges lower and side, for bar ranges at the side
Material	
Pressure connection	Standard Nickel plated brass, optional stainless steel 316 (1.4401) or Monel For mbar ranges steel epoxy coated standard, stainless steel on request
Diaphragm	Buna N, Viton, Teflon, stainless steel 316 (1.4401) (stainless steel only 1 to 6 bar)
Housing	Aluminum, epoxy coated, grey
Accuracy	1 % F.S.
Pneumatic specification	
Valve	Nominal size 2 mm (DN2)
Air supply	2 bar to 10 bar, nominal calibrated 3 bar, air to be dry and filtered (5 µm), optional 1 bar to 3 bar
Pneumatic connection	Nipple DN2 for tube (brass), ¼ NPT female or ¼ NPT male, G ¼ B male or G ¼ female Located at the side of the housing
General specification	
Permissible	
Ambient temperature	-20 ... 70 °C
Medium temperature	Buna N and Teflon -18 ... 65 °C, Viton -7 ... 150 °C, Stainless steel and Monel -18 ... 150 °C
Storage temperature	-40 ... 70 °C
Effect	Max. 0,4 % / 10 K ref. 20 °C
Protection according EN 60 529/IEC 529	IP65
Mounting	Standard stem, optional wall (BP) or 2" pipe mounting (TM)
Weight mbar/bar [kg]	1,8/2,2
Accessories, options	Diaphragm seals, valves, adapters



## Order information

Switch element	Actuator seal	Range	Engineering unit	Protection	Process connection	Air connection	Options	
Operating air pressure 2 to 10 bar (W4) 5/2 way pneumatic valve	(B) Buna N <sup>1)</sup>	30	PSID	(IP) Standard IP65	(25) 1/4 NPT female	(DN2) Tube nipple DN2	(NH) Tagging wired	
	(V) Viton <sup>2)</sup>	60					(FS) Factory adjusted setpoint	
	(T) Teflon <sup>1)</sup>	100					(6B) Oxygen cleaned (not for Buna N diaphragm; in. H <sub>2</sub> OD ranges only with option TA)	
Operating air pressure 1 to 3 bar (W2) 5/2 way pneumatic valve	(S) 316 (1.4401) <sup>3)</sup>	150	PSID	(IP) Standard IP65	(06) 1/2 NPT male <sup>1)</sup>	(25) 1/4 NPT female	(TM) 2" pipe mounting bracket	
		15					(13) G 1/4 B male	(TA) 316 (1.4401) pressure connection for in. H <sub>2</sub> OD ranges
		30					(15) G 1/2 B male <sup>1)</sup>	(UD) 316 (1.4401) pressure connection for psid ranges
		60					(16) M20x1,5 male <sup>1)</sup>	(BP) Wall mounting bracket for in. H <sub>2</sub> OD ranges
		100					(HS) High static pressure 100 bar (only for ranges 15 and 30 psid and diaphragm Buna N or Viton)	
		200					(MD) Metric ranges	
		400						
		600						

<sup>1)</sup> max. medium temperature -18 ... 65 °C  
<sup>2)</sup> max. operation temperature -7 ... 150 °C  
<sup>3)</sup> max. operation temperature -18 ... 150 °C only ranges from 15 to 90 psid

note, the range can also be specified in mbar or bar

<sup>1)</sup> with adapter

## How to order

Type	Switch element	Actuator seal	Range	Engineering unit	Protection	Process connection	Air connection	Option
VD	W4	B	100	PSID	IP	25	02	NH