

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. H₂O up to 600 psid

Applications

Chemical and petrochemical industry

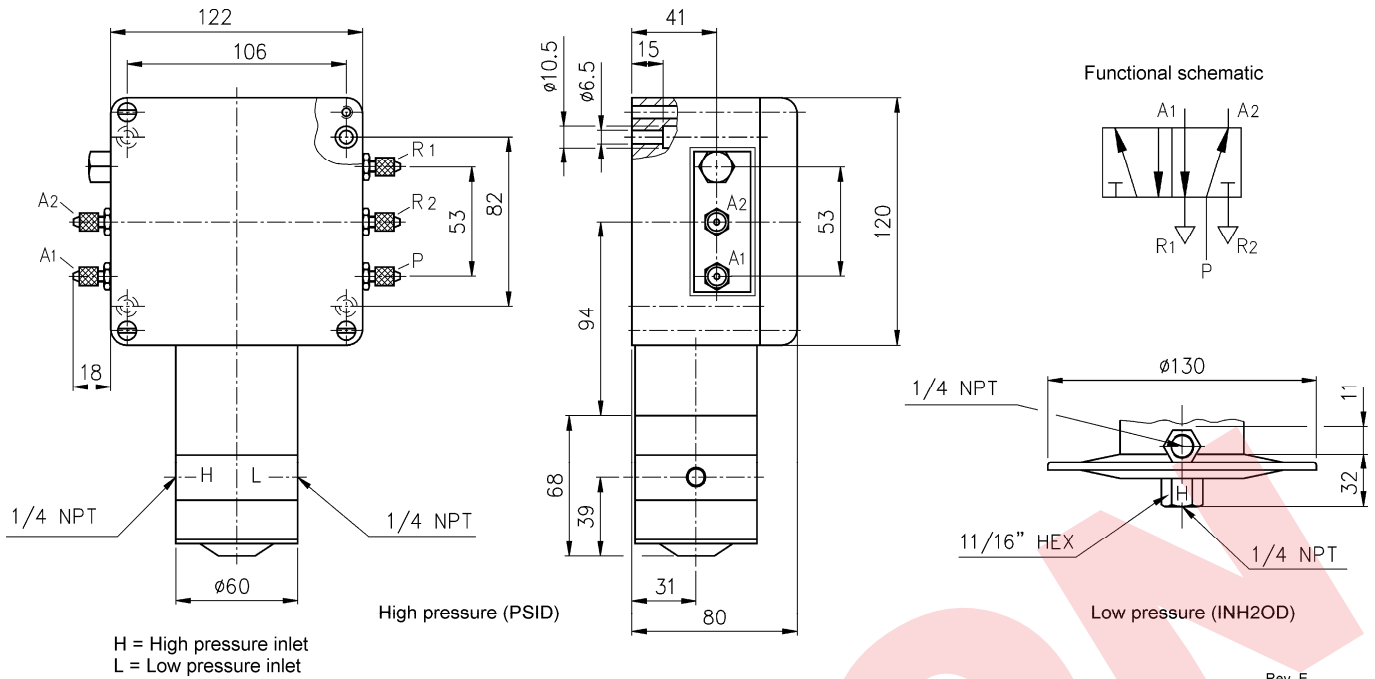
Machine and apparatus construction

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
Pressure type	Optional 100 bar static pressure for the ranges 1 bar and 2 bar (only diaphragm Buna N or Viton) 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

General dimensions [mm]



Order information

Switch element	Actuator seal	Range	Engineering unit	Protection	Process connection	Air connection	Options
Operating air pressure 2 to 10 bar	(B) Buna N ¹⁾	30	INH2OD	(IP) Standard IP65	(25) 1/4 NPT female	(DN2) Tube nipple DN2	(NH) Tagging wired
	(V) Viton ²⁾	60					
	(W4) 5/2 way pneumatic valve	100					
	(T) Teflon ¹⁾	150					
Operating air pressure 1 to 3 bar	(S) 316 (1.4401) ³⁾	15	PSID		(06) 1/2 NPT male ¹⁾	(02) 1/4 NPT male	(FS) Factory adjusted setpoint
		30					
		60					
		100					
		200					
		400					
(W2) 5/2 way pneumatic valve	600		(07) 1/2 NPT female ¹⁾	(25) 1/4 NPT female	(6B) Oxygen cleaned (not for Buna N diaphragm; in H ₂ OD ranges only with option TA)		
			(15) G 1/2 B male ¹⁾	(13) G 1/4 B male	(TM) 2" pipe mounting bracket		
			(16) M20x1,5 male ¹⁾	(26) G 1/4 female	(TA) 316 (1.4401) pressure connection for in. H ₂ OD ranges		
					(UD) 316 (1.4401) pressure connection for psid ranges		
						(BP) Wall mounting bracket for in. H ₂ OD ranges	
						(HS) High static pressure 100 bar (only for ranges 15 and 30 psid and diaphragm Buna N or Viton)	
						(MD) Metric ranges	

1) max. medium temperature -18 ... 65 °C
 2) max. operation temperature -7 ... 150 °C
 3) max. operation temperature -18 ... 150 °C only ranges from 15 to 90 psid
 note, the range can also be specified in mbar or bar
 1) 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

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