

Pressure switch series VP

with pneumatic switch valve

Accuracy: $\pm 1\%$

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 proof pressure

Ranges

-37,5/+37,5 mbar up to 210 bar

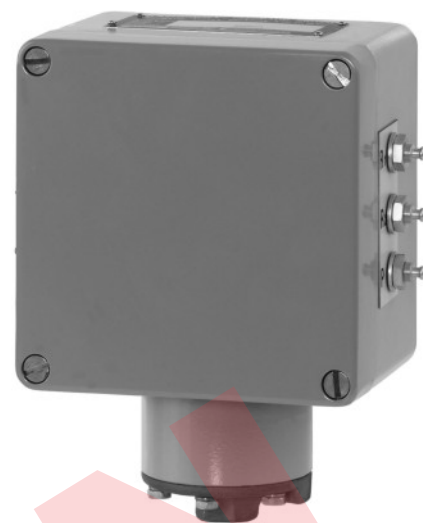
-15/+15 in. H₂O up to 3000 psi

Applications

Chemical and petrochemical industry

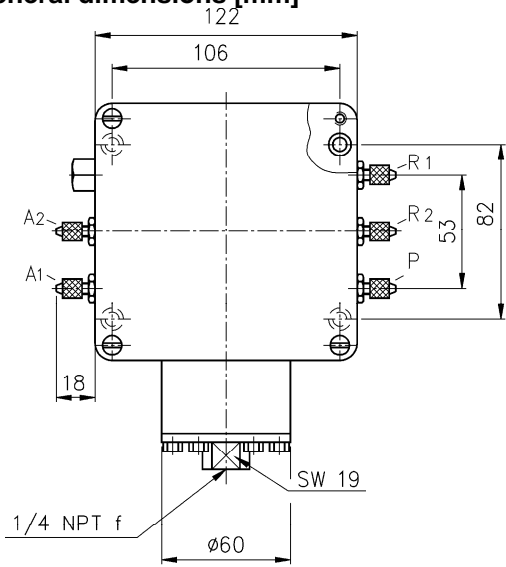
Machine and apparatus construction

Food and beverage industry

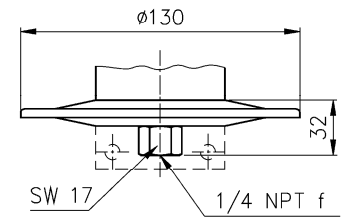
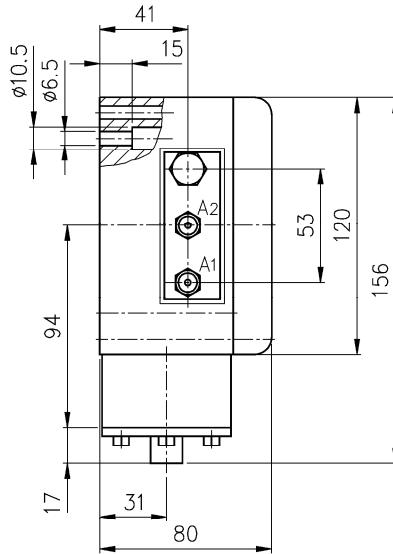


Technical specification	VP series																														
Construction	Weatherproof																														
Switch functions	One setpoint, 5/2 way pneumatic valve (see schematic)																														
Adjustable range	From 15 % to 100 %, below 15 % consult factory																														
Deadband	From 0,5 % to 15 % F.S., depending on material, range and pneumatic valve																														
Measuring principle	Diaphragm-piston-cylinder-system																														
Range	<table border="1"> <tr> <td>25</td> <td>75</td> <td>150</td> <td>250</td> <td>375</td> <td>-37,5/37,5</td> <td>-75/75</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>2</td> <td>4</td> <td>7</td> <td>14</td> <td>28</td> <td>42</td> <td>70</td> <td>140</td> <td>210</td> <td>-1/0</td> <td>-1/1</td> <td>-1/2</td> <td>-1/4</td> <td></td> </tr> </table>	25	75	150	250	375	-37,5/37,5	-75/75									1	2	4	7	14	28	42	70	140	210	-1/0	-1/1	-1/2	-1/4	
25	75	150	250	375	-37,5/37,5	-75/75																									
1	2	4	7	14	28	42	70	140	210	-1/0	-1/1	-1/2	-1/4																		
Limits (pressure ranges)	mbar vacuum 1 to 4 bar 7 to 14 bar 28 to 42 bar 70 to 210 bar																														
Proof pressure [bar]	1,4 17 35 69 165 827																														
Burst pressure [bar]	2,4 28 103 207 207 1240																														
Pressure type	Gauge, vacuum and compound																														
Process connection	¼ NPT female, ½ NPT male/¼ NPT female (standard for ≥ 70 bar) ½ NPT female, G ½ B male, M20x1,5, others on request (metric connections with adapter)																														
Connection location	Lower																														
Material																															
Pressure connection	Stainless steel 316 (1.4401), optional Monel																														
Diaphragm	For mbar ranges steel epoxy coated standard, stainless steel on request																														
Housing	Buna N, Viton (max. 70 bar), Teflon, stainless steel 316 (1.4401) or Monel (stainless steel and Monel only from ≥ 1 bar to ≤ 70 bar) Aluminum, epoxy coated, grey																														
Accuracy	1,0 % 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 μ m, 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, wall (BP) or 2" pipe mounting (TM)																														
Weight mbar/bar [kg]	1,9/1,5																														
Accessories, options	Diaphragm seals, valves, adapters, NACE																														

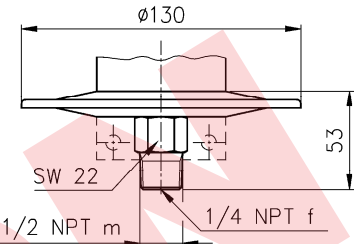
General dimensions [mm]



High pressure (PSI)

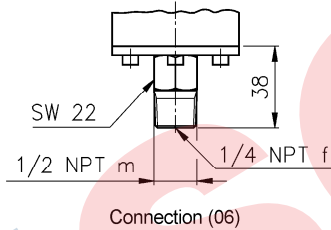
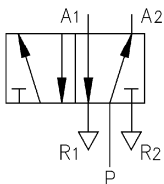


Low pressure (INH₂O)



Connection (06)

Functional schematic



Connection (06)

Rev. E

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⁾	-15/ 15	INH ₂ O	(IP) Standard IP65	(25) ¼ NPT female	(DN2) Tube nipple DN2	(NH) Tagging wired					
	(V) Viton ²⁾	-30/ 30										
(W4) 5/2 way pneumatic valve	(T) Teflon ¹⁾	-30/ 0	INHG/PSI		(06) ¼ NPT female/ ½ NPT male ¹⁾	(02) ¼ NPT male	(FS) Factory adjusted setpoint					
	(S) 316 (1.4401) ³⁾	-30/ 15										
	(P) Monel ³⁾	-30/ 60										
Operating air pressure 1 to 3 bar	(P) Monel ³⁾	10	INH ₂ O		(15) G ½ B male ²⁾	(13) G ¼ B male	(6B) Oxygen cleaned (not for Buna N diaphragm; in. H ₂ O ranges only with option TA)					
		30										
(W2) 5/2 way pneumatic valve		60	PSI		(16) M20x1,5 male ²⁾	(26) G ¼ female	(TM) 2" pipe mounting bracket					
		100										
		150										
		15										
		30										
		60										
		100										
		200										
		400										
		600										
1000	note the range can also be specified in mbar or bar						(TA) 316 (1.4401) pressure connection for in. H ₂ O ranges					
2000												
3000												
1)								max. medium temperature -18 ... 65 °C				
2)									max. medium temperature -7 ... 150 °C			
3)										max. medium temperature -18 ... 150 °C only ranges from 15 to 1000 psi		
1)											standard for ranges ≥ 1000 psi	
2)												with adapter
							(BP) Wall mounting bracket for in. H ₂ O ranges					

How to order

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

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