

Pressure switch series VP

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 proof pressure

Ranges

-37,5/+37,5 mbar up to 210 bar
-15/+15 in. H₂O up to 3000 psi

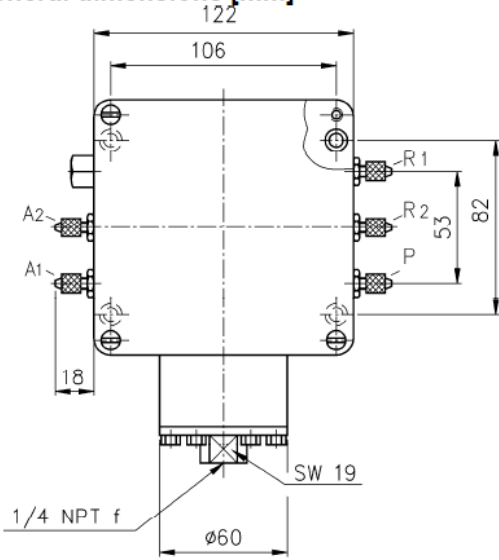
Applications

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

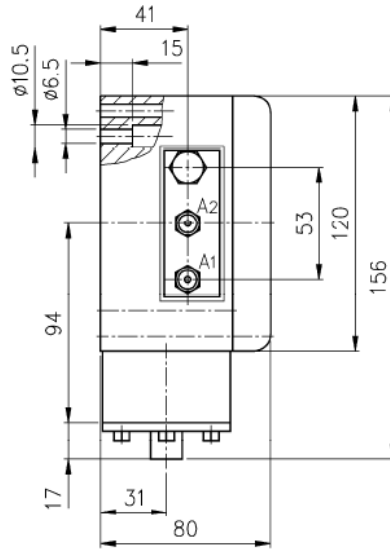


Technical specification	VP series
Construction	Weatherproof
Switch functions	One setpoint, 5/2 way pneumatic valve (see schematic)
Adjustable range	From 15 % to 100 %, below 15 % consult factory
Deadband	From 0,5 % to 15 % F.S., depending on material, range and pneumatic valve
Measuring principle	Diaphragm-piston-cylinder-system
Range [mbar]	25 75 150 250 375 -37,5/37,5 -75/75
[bar]	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 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)
Housing	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 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, wall (BP) or 2" pipe mounting (TM)
Weight mbar/bar [kg]	1,9/1,5
Accessories, options	Diaphragm seals, valves, adapters, NACE

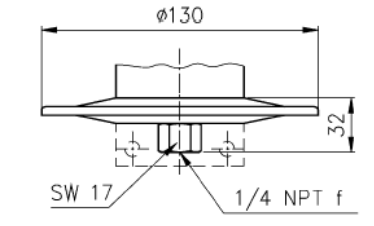
General dimensions [mm]



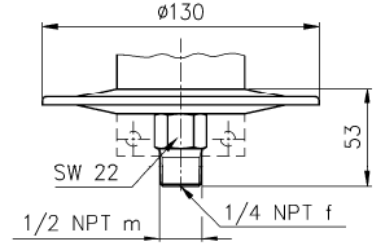
High pressure (PSI)



Connection (06)



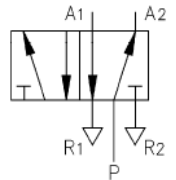
Low pressure (INH₂O)



Connection (06)

Rev. E

Functional schematic



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	INH _G /PSI		(06) ¼ NPT female/ ½ NPT male ¹⁾	(02) ¼ NPT male	(FS) Factory adjusted setpoint
	(S) 316 (1.4401) ³⁾	-30/ 15					
Operating air pressure 1 to 3 bar	(P) Monel ³⁾	-30/ 60	INH ₂ O		(07) ½ NPT female	(13) G ¼ B male	(6B) Oxygen cleaned (not for Buna N diaphragm; in. H ₂ O ranges only with option TA)
		10					
(W2) 5/2 way pneumatic valve		30	PSI		(15) G ½ B male ²⁾	(26) G ¼ female	(TM) 2" pipe mounting bracket
		60					
		100			(16) M20x1,5 male ²⁾	(37) 3/8 NPT female	(TA) 316 (1.4401) pressure connection for in. H ₂ O ranges
		150					
		15					(BP) Wall mounting bracket for in. H ₂ O ranges
		30					
		60					(MD) Metric ranges
		100					
		200					
		400					
		600					
		1000					
		2000					
		3000					
	¹⁾ max. medium temperature -18 ... 65 °C				¹⁾ standard for ranges ≥ 1000 psi		
	²⁾ max. medium temperature -7 ... 150 °C				²⁾ with adapter		
	³⁾ max. medium temperature -18 ... 150 °C only ranges from 15 to 1000 psi	note the range can also be specified in mbar or bar					

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