

P Series Pneumatic

Pneumatic Actuated Bellows Valve



Parker Hannifin Corporation's Veriflo Division presents the P Series Pneumatic Actuated bellows valve.

The P Series bellows valve offers a 360° rotation of the air inlet port for position purposes and ease of use. The P Series bellows valve provides clean, reliable operation at full system pressures.



features

- ▶ Bottom mountable.
- ▶ Minimal PCTFE to reduce outgassing and moisture absorption.
- ▶ Electropolish surface finishes available at 10 Ra; GP finishes at 20 Ra.
- ▶ 12AC has compact design - 1-1/4" diameter.
- ▶ 360° rotation of actuator for easy installation.
- ▶ Stem guide out of flow path.

materials of construction

Wetted

Body 316L Stainless Steel
Bellows 321 Stainless Steel
Bellows Assembly 316L Stainless Steel
Seat PCTFE, Vespel®
Gasket Teflon® Coated Stainless Steel

Non-wetted

Actuator Body Aluminum 6061
Bonnet 316L Stainless Steel
Bonnet Nut 316L Stainless Steel

operating conditions

Pressure ratings:

Normally Closed (11AC, 12AC)
..... Vacuum to 200 psig(14 barg)

Normally Open (11AO, 12AO)
..... Vacuum to 600 psig(41 barg)

Double Acting (11AD, 12AD)
..... Vacuum to 700 psig(48 barg)

Temperature:

PCTFE -150°F to 300°F (-101°C to 148.9°C)
Vespel® -150°F to 400°F (-101°C to 204.4°C)

surface finishes

20 Ra for A, W or Z type connections
10 Ra Electropolished

functional performance

Flow Capacity see chart

Design Leak Rate
across the seat 4×10^{-9} cc/sec He

internal volume

0.09 in³ (1.55 cm³)

Catalog: 4506
LitPN: 25000180
Revision: A • 10/03

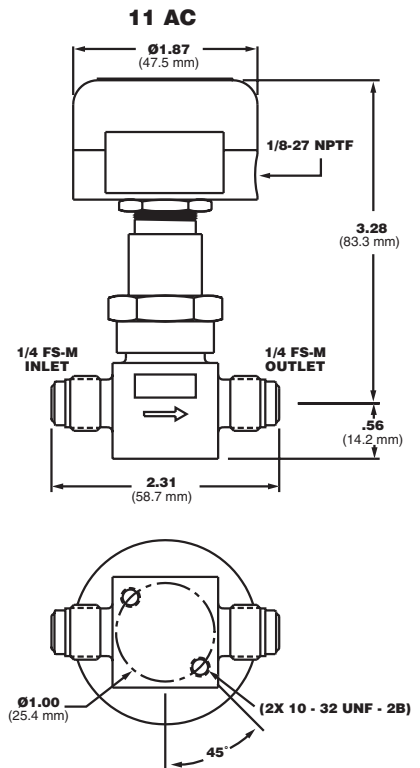
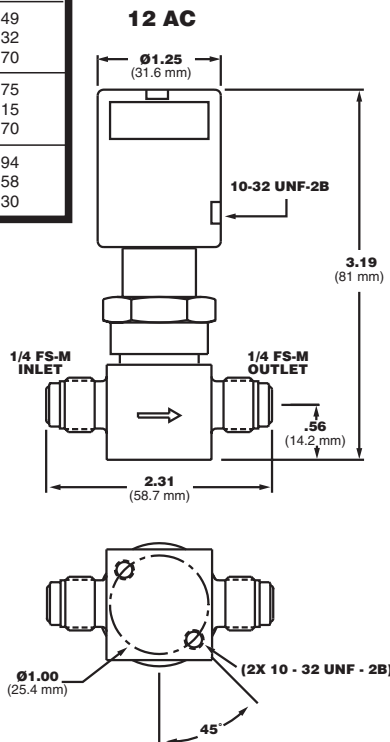


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Dimensional Drawings

Soft Seat Stem Tips (K)

Valve Series	Orifice	Maximum Flow Coefficient, C_v	Pressure Drop To Atmosphere (ΔP)	Air SCFM @ 70 F (21 C)	Water GPM @ 70 F (21 C)
PT4	.156	$C_v = .38$	10	5.26	1.20
PT4	.156		50	14.54	2.69
PT4	.156		100	25.77	3.80
PT4A	.156	$C_v = .47$	10	6.50	1.49
PT4A	.156		50	17.98	3.32
PT4A	.156		100	31.87	4.70
PT6	.281	$C_v = .87$	10	12.04	2.75
PT6	.281		50	33.28	6.15
PT6	.281		100	59.00	8.70
PT8	.312	$C_v = .93$	10	12.87	2.94
PT8	.312		50	35.57	6.58
PT8	.312		100	63.07	9.30



Ordering Information

INLET & OUTLET CONNECTION SIZE

4 = 1/4"
6 = 3/8"
8 = 1/2"

INLET & OUTLET CONNECTION TYPE

V1* = Female VacuSeal™
V* = Male VacuSeal™
VH* = Male VacuSeal™ Swivel
BW = Tube Stub
T3 = Tube Stub (3" Long)
W = Socket Weld
A = A-LOK®
Z = CPI™

SURFACE FINISH

= 20 Ra (Only Available for A, W or Z Type Connections)
PE = 10 Ra Electropolish

MATERIAL

SSV = 316L Stainless Steel VeriClean

ACTUATOR

11AC, 12AC = Air Operated, Normally Closed
11AO, 12AO = Air Operated, Normally Open
11AD, 12AD = Air Operated, Double Acting
Note: Series 12 Actuator is a compact design at 1-1/4" diameter.

STEM TIP MATERIAL

K = PCTFE
VE = Vespel®

BASIC SERIES

P4, P6, P8 = Incline Pattern
P4A = Angle Pattern

* Only available in P4 and P8 versions.

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