

870 Series

UHP Stainless Steel Diaphragm Valve
High Flow, Welded

aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding

Value Proposition:

The ultra high purity 870 diaphragm valve offers a high flow device in a 1-1/2" body. The 870 valve offers a variety of manual operators to fit the customer's system requirements. The Air Operated version can be used in UHP systems up to 150 psig. The Manual Operated version can be used in UHP systems up to 250 psig.

The 870 valve has a unique porting shape that is utilized to optimize the flow capacity.



Contact Information:

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Product Features:

- Standard surface finish of 10 micro inch Ra with flash EP
- High cycle life (including corrosive service)
- Fully functional from vacuum to 150 psig for AOP valves and 250 psig for manual valves
- Internally threadless and springless
- 100% Helium leak tested
- Minimal particle generation and particle entrapment areas
- Vericlean™, Veriflo's low sulfur high purity 316L Stainless Steel enhances electropolishing, welding, and corrosion resistance

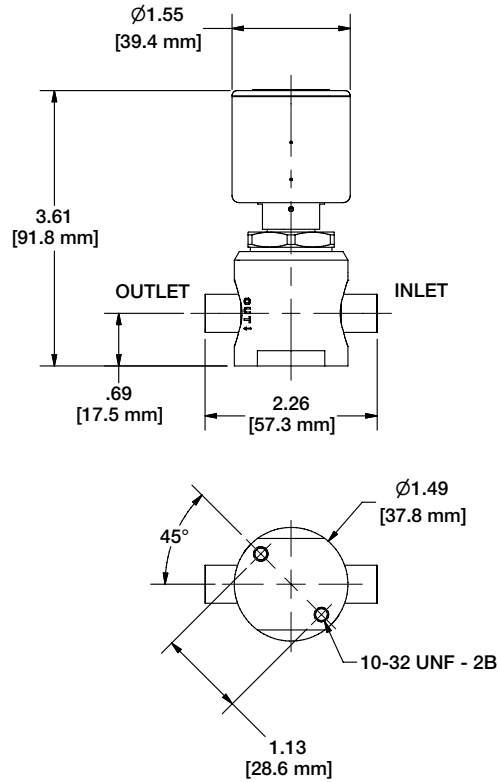


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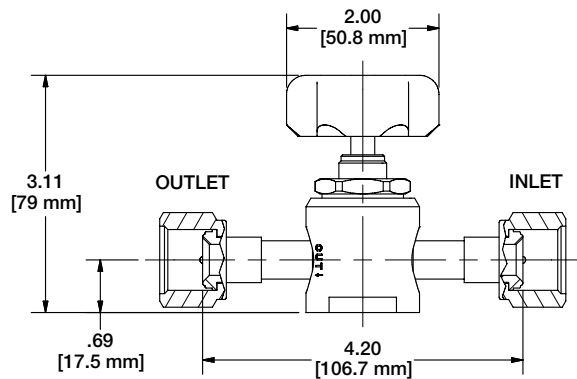
870 Series

Dimensional Drawing

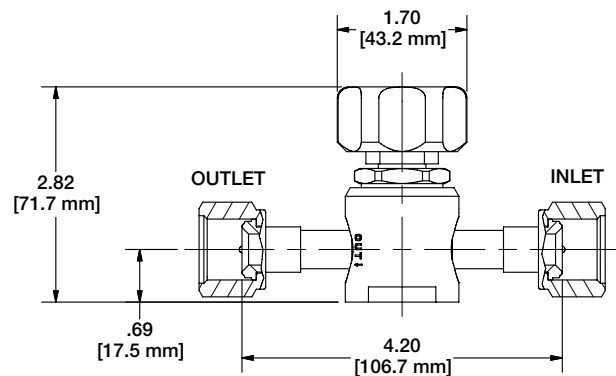
870 AOPLPNC



870S



870I



870 Series

Ordering Information

Build a 870 Series valve by replacing the numbered symbols with an option from the corresponding tables below.

Sample: **8**  **70**  **AOPLPNC**  **S**  **FS8**  **MF**
Finished Order: **870AOPLPNC SFS8FSMF**



Basic Series

70 = 870



Body Material

S = 316L Stainless Steel



Port Configuration

M = Male Face Seal

F = Female Face Seal



Type

AOPLPNC = Air Operated, Low Pressure, Normally Closed *Air Connection is 1/8" NPT*

I = Indicating Handwheel

S = Spin Handwheel

AOPLPNO = Air Operated, Low Pressure, Normally Open *Air Connection is 1/8" NPT*



Port Style

FS8 = 1/2" Face Seal

TS8 = 1/2" Tube Stub

870 Series

Specifications

Materials of Construction	
Wetted	
Body	Vericlean 316L Stainless Steel
Diaphragm	Elgiloy® or equivalent
Seat	PCTFE
Non-wetted	
Cap	17-4 PH Stainless Steel
Nut	17-4 PH Stainless Steel
Actuator Housing	Anodized Aluminum
Operating Conditions	
Maximum Pressure	
Manual	250 psig (17.22 barg)
AOP	150 psig (10 barg)
Minimum Pressure	Vacuum
AOP Actuation Pressure	70-125 psig
AOP Air Inlet	1/8" NPT
Temperature	-40°F to 150°F (-40°C to 66°C)

Functional Performance	
Flow Capacity	
AOP versions, Indicator Knob and Handwheel	C _v .7
Design	
Burst Pressure	750 psig (52 barg)
Proof Pressure	375 psig (26 barg)
Leak Rate	
Internal	≤ 1 X 10 ⁻⁹ scc/sec He
External	≤ 2 X 10 ⁻¹⁰ scc/sec He
Surface Finish	10 micro inch Ra
Internal Volume	0.59 cc
Approx. Weight	1.44 lbs. (0.65 kg)

Elgiloy® is a registered trademark of Elgiloy Company
VeriClean™ is a trademark of Parker Hannifin Corporation

For additional information on materials of construction, functional performance and operating conditions, please contact factory.

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