

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

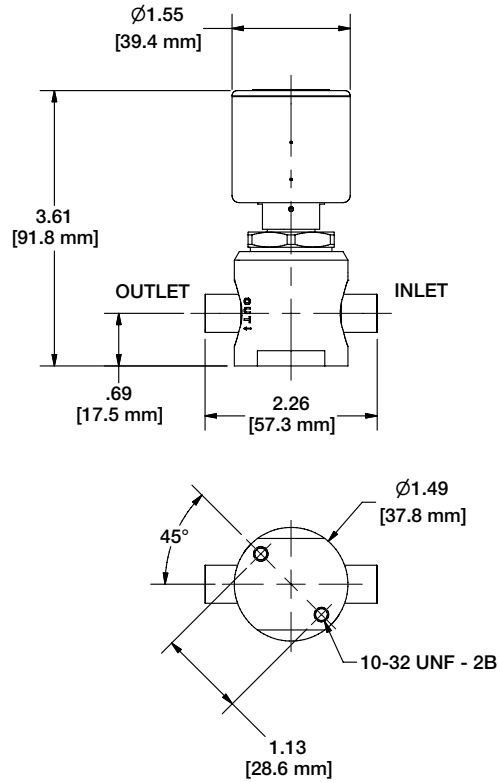


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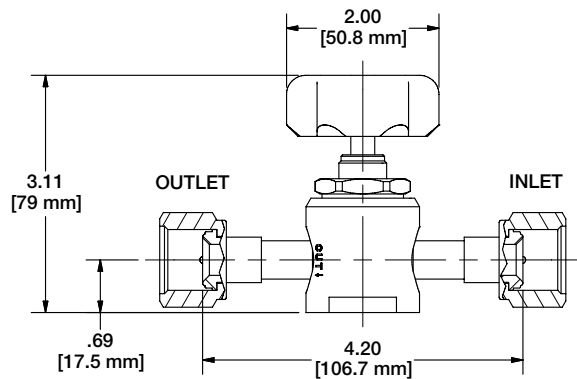
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Dimensional Drawing

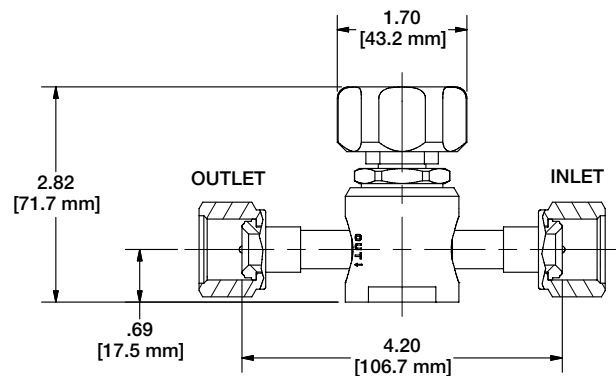
870 AOPLPNC



870S



870I



870 Series

Ordering Information

Part Number	Model Description	Actuation Type	Seat Material	Porting Style	Porting Configuration
54021085	870AOPLPNCSFS8MF	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Male / Female
54021146	870ISFS8MF	Indicator Knob	PCTFE	1/2" Face Seal	Male / Female
54021229	870SSFS8MF	Spin Handwheel	PCTFE	1/2" Face Seal	Male / Female
54021086	870AOPLPNCSFS8FM	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Female / Male
54021147	870ISFS8FM	Indicator Knob	PCTFE	1/2" Face Seal	Female / Male
54021230	870SSFS8FM	Spin Handwheel	PCTFE	1/2" Face Seal	Female / Male
54021087	870AOPLPNCSFS8MM	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Male / Male
54021148	870ISFS8MM	Indicator Knob	PCTFE	1/2" Face Seal	Male / Male
54021231	870SSFS8MM	Spin Handwheel	PCTFE	1/2" Face Seal	Male / Male
54021088	870AOPLPNCSFS8FF	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Female / Female
54021149	870ISFS8FF	Indicator Knob	PCTFE	1/2" Face Seal	Female / Female
54021232	870SSFS8FF	Spin Handwheel	PCTFE	1/2" Face Seal	Female / Female
54021233	870AOPLPNCSTS8	Normally Closed, Low Pressure	PCTFE	1/2" Tube Stub	Tube Stub
54021234	870ISTS8	Indicator Knob	PCTFE	1/2" Tube Stub	Tube Stub
54021235	870SSTS8	Spin Handwheel	PCTFE	1/2" Tube Stub	Tube Stub

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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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Proposition 65 Warning: This product contains chemicals known to the state of California to cause cancer or birth defects or other reproductive harm.

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