

# 970 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 970 diaphragm valve offers a high flow device in a 1-1/2" body. The 970 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 970 valve has a unique porting shape that is utilized to optimize the flow capacity.



## Contact Information:

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## Product Features:

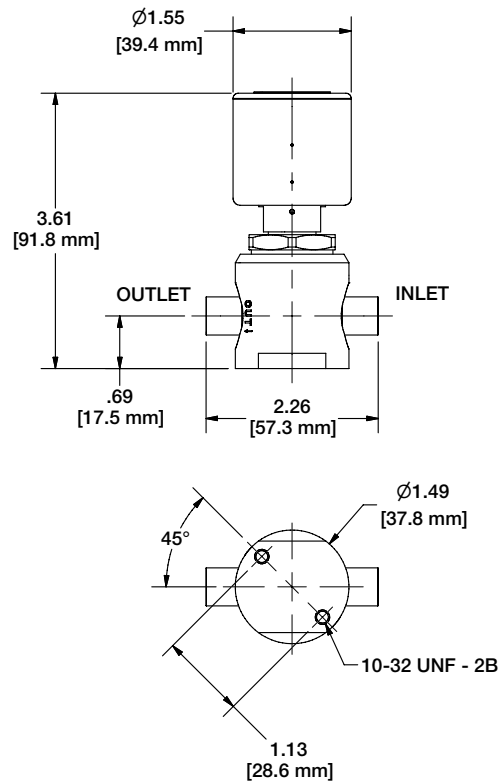
- Standard surface finish of 5 micro inch Ra
- High cycle life (including corrosive service)
- Fully functional from vacuum to 150 psig for AOP valves and 250 psig for manual valves
- Internally threadless and springless
- 100% Helium leak tested
- Standard full internal and external Electropolish
- 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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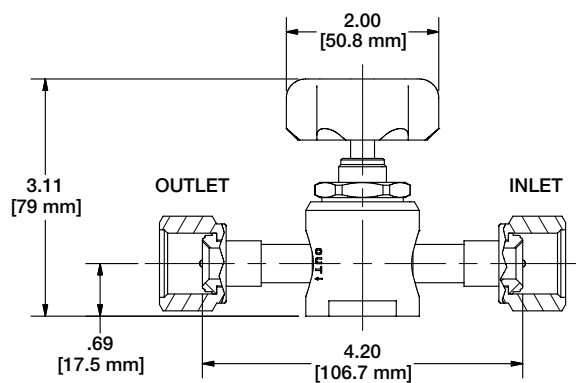
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## Dimensional Drawings

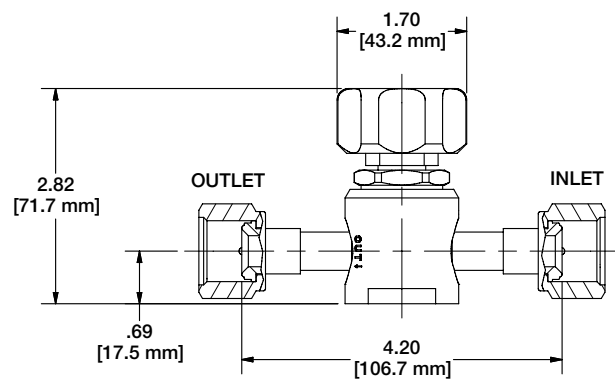
### 970 AOPLPNC



### 970S



### 970I



# 970 Series

## Ordering Information

Part Number	Model Description	Actuation Type	Seat Material	Porting Style	Porting Configuration
54021079	970AOPLPNCSFS8MF	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Male / Female
54021142	970ISFS8MF	Indicator Knob	PCTFE	1/2" Face Seal	Male / Female
54021236	970SSFS8MF	Spin Handwheel	PCTFE	1/2" Face Seal	Male / Female
54021080	970AOPLPNCSFS8FM	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Female / Male
54021143	970ISFS8FM	Indicator Knob	PCTFE	1/2" Face Seal	Female / Male
54021237	970SSFS8FM	Spin Handwheel	PCTFE	1/2" Face Seal	Female / Male
54021084	970AOPLPNCSFS8MM	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Male / Male
54021144	970ISFS8MM	Indicator Knob	PCTFE	1/2" Face Seal	Male / Male
54021238	970SSFS8MM	Spin Handwheel	PCTFE	1/2" Face Seal	Male / Male
54020136	970AOPLPNCSFS8FF	Normally Closed, Low Pressure	PCTFE	1/2" Face Seal	Female / Female
54021145	970ISFS8FF	Indicator Knob	PCTFE	1/2" Face Seal	Female / Female
54020847	970SSFS8FF	Spin Handwheel	PCTFE	1/2" Face Seal	Female / Female
54021239	970AOPLPNCSTS8	Normally Closed, Low Pressure	PCTFE	1/2" Tube Stub	Tube Stub
54021240	970ISTS8	Indicator Knob	PCTFE	1/2" Tube Stub	Tube Stub
54021241	970SSTS8	Spin Handwheel	PCTFE	1/2" Tube Stub	Tube Stub

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## Specifications

Materials of Construction	
<b>Wetted</b>	
Body	Vericlean 316L Stainless Steel
Diaphragm	Elgiloy® or equivalent
Seat	PCTFE
<b>Non-wetted</b>	
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	
<b>Flow Capacity</b>	
AOP versions, Indicator Knob and Handwheel	C <sub>v</sub> .7
<b>Design</b>	
Burst Pressure	750 psig (52 barg)
Proof Pressure	375 psig (26 barg)
<b>Leak Rate</b>	
Internal	Inboard Test Method
External	≤ 1 X 10 <sup>-9</sup> scc/sec He
	≤ 2 X 10 <sup>-10</sup> scc/sec He
<b>Surface Finish</b>	5 micro inch Ra
<b>Internal Volume</b>	0.59 cc
<b>Approx. Weight</b>	1.44 lbs. (0.65 kg)

Elgiloy® is a registered trademark of Elgiloy Company  
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For additional information on materials of construction, functional performance and operating conditions, please contact factory.

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