

18R Series

UHP Stainless Steel Diaphragm Valve
High Pressure, High Flow

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

Value Proposition:

The 18R Series valve provides high flow and positive shut off for high purity fluid systems.

This 1/2" and 3/8" spring type diaphragm valve offers superior leak integrity for manually and pneumatically actuated versions with pressure ranges from vacuum up to 1500 psig.



Contact Information:

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Product Features:

- Standard surface finish of 10 micro inch Ra
- Serialized and heat code traceable
- Fully functional from vacuum to 1500 psig. (Pneumatic version to 1200 psig)
- 100% Helium leak tested
- Vericlean™, Veriflo's low sulfur high purity 316L Stainless Steel enhances electropolishing, welding, and corrosion resistance
- Multi-diaphragm for superior cycle life

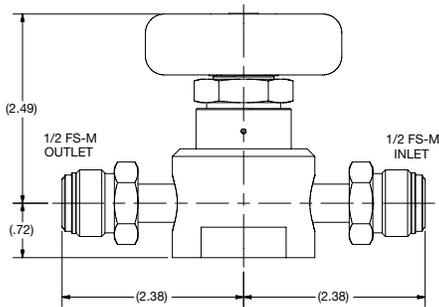
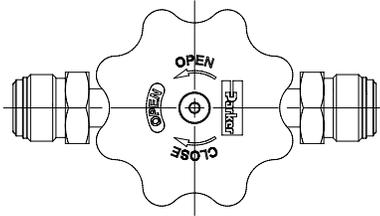


ENGINEERING YOUR SUCCESS.

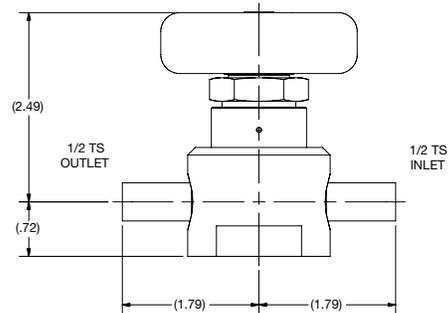
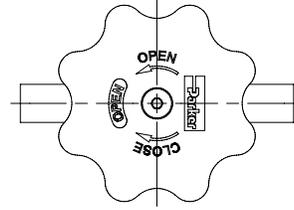
18R Series

Dimensional Drawings

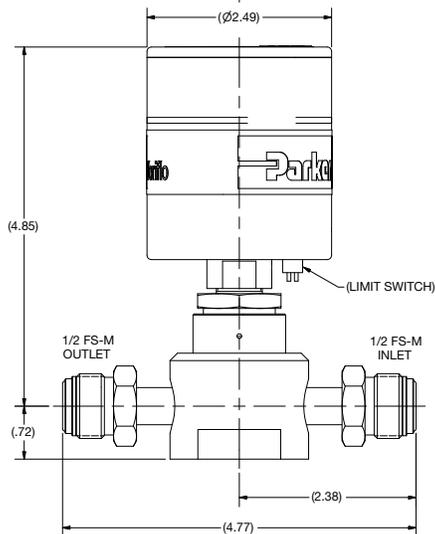
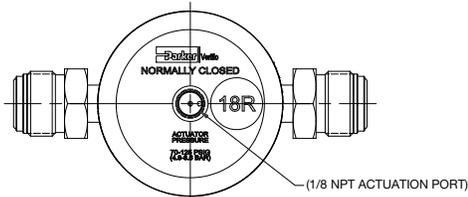
18RI SERIES VACUSEAL™



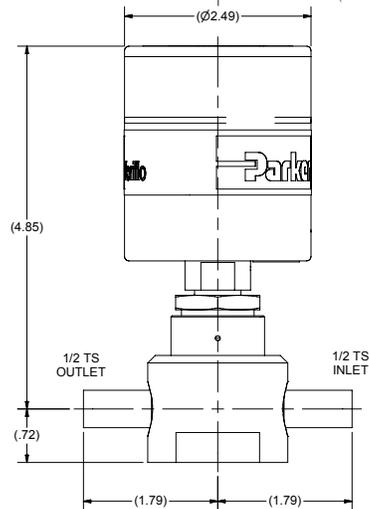
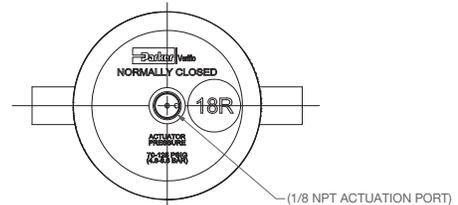
18RI SERIES TUBE STUB



18R AOPNC SERIES VACUSEAL™



18R AOPNC SERIES TUBE STUB



18R Series

Ordering Information

Build an 18R Series valve by replacing the numbered symbols with an option from the corresponding tables below.

Color Explanations: Black = Standard Lead Time Configurations
Blue = Extended Lead Time Configurations

For an explanation of Ordering options please reference literature 25000275 at www.parker.com/veriflo

Sample:  **18R**  **AOPNC**  **S**  **FS8MM** 

Finished Order: **18RAOPNC SFS8MM**

 **Basic Series**
18R = 18R

 **Type**
AOPNC = Air Operated,
Normally Closed *Air Connection is 1/8" NPT*
I = Indicating Hand wheel

 **Body Material**
S = 316L Stainless Steel

 **Inlet/Outlet Connection**
FS8MM = 1/2" Face Seal
FS8FF = 1/2" Face Seal
TS6 = 3/8" Tube Stub
End-to-End length: 2.74"
TS8 = 1/2" Tube Stub
FS12MM = 3/4" Face Seal
End-to-End length: 5.79"
FS12FF = 3/4" Face Seal
End-to-End length: 5.79"

 **Optional Features**
This section can have multiple options
LSC = Limit Switch Closed *Available with AOPNC option only*
LSO = Limit Switch Open *Available with AOPNC option only*
PI = Polyimide Seat
3.25 = 1/2" Fixed Male Face Seal *Inlet/Outlet*

Additional configurations available upon request

18R Series

Specifications

Materials of Construction	
Wetted	
Body	VeriClean™ 316L Stainless Steel (Electropolished)
Diaphragm	Elgiloy® or equivalent
Seat Options	PCTFE (std) or Polyimide
Lower Stem	VeriClean™ 316L Stainless Steel (Passivated)
Spring	316 Stainless Steel (Electropolished)
Non-wetted	
Pneumatic	
Actuator Housing	Aluminum
Piston	303 Stainless Steel
Bonnet	17-4 Stainless Steel
Support Diaphragm	Sliver plated Beryllium Copper/ Elgiloy® or equivalent
Manual	
Hand Wheel	Aluminum
Bonnet	17-4 Stainless Steel
Upper Stem	Aluminum Silicon Bronze
Screw	18-8 Stainless Steel
Support Diaphragm	Sliver plated Beryllium Copper/ Elgiloy® or equivalent
Sleeve	Nylon
Limit Switch (Optional)	
Type	Single Pole, Single Throw (SPST) momentary action, non-adjustable
	26 AWG wire, 7", w/o connector
Rating	
AOPNCLSC	1/4 amp at 115 vac (normally closed)
AOPNCLSO	1/2 amp at 115 vac (normally open)

Functional Performance	
Flow Capacity	
Manual	C _v 1.3
Pneumatic	C _v 1.0
Leak Rate	
Design Internal	< 4 X 10 ⁻⁹ scc/sec He Inboard Test Method
Design External	< 1 X 10 ⁻⁹ scc/sec He Inboard Test Method
Production Leak Test	Outboard sniffer probe at 1000-1500 psig, 20-25% Helium
Surface Finish	10 micro inch Ra
Internal Volume	11.77 cc
Approx. Weight	
Manual	1.85 lbs. (0.84 kgs)
Pneumatic	3.35 lbs. (1.52 kgs)
Operating Conditions	
Operating Pressure	
Manual	Vacuum to 1500 psig (103.4 barg)
Pneumatic	Vacuum to 1200 psig (82.7 barg) at 70°F
Actuator	70 psig (4.8 barg) minimum to 125 psig (8.6 barg) maximum
Max Differential Back Pressure	200 psid (13.8 barg)
Temperature	
Manual	-40°F to 150°F (-40°C to 65°C)
Pneumatic	+15°F to 150°F (-9°C to 65°C)

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

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