

# 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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Mobile App: m.parker.com/veriflo

## 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

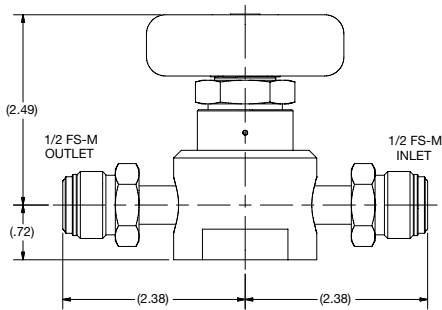
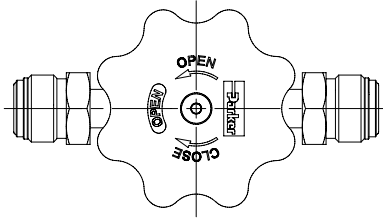


ENGINEERING YOUR SUCCESS.

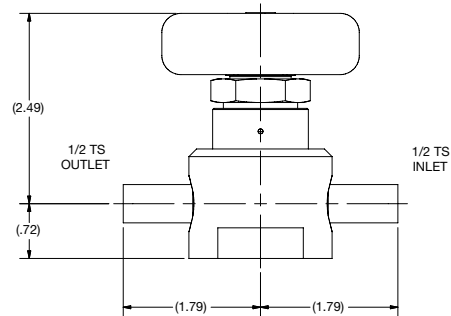
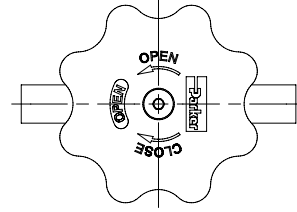
# 18R Series

## Dimensional Drawings

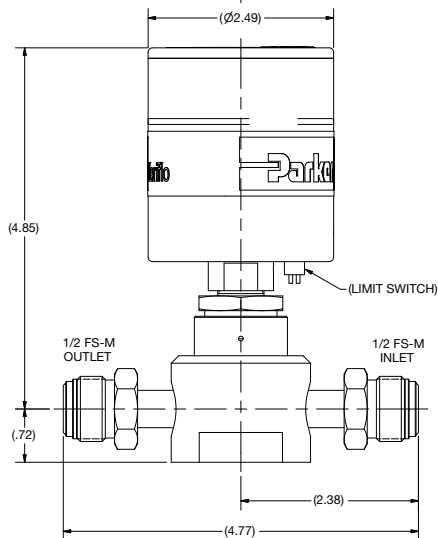
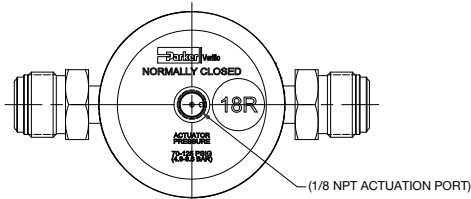
### 18RI SERIES VACUSEAL™



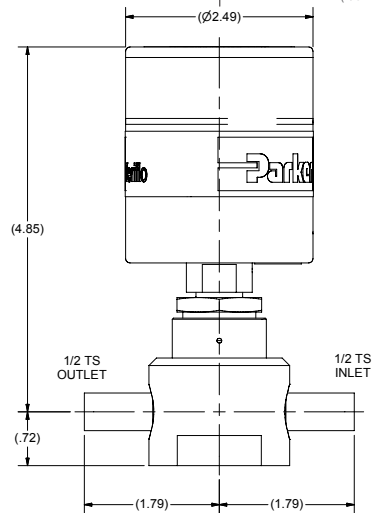
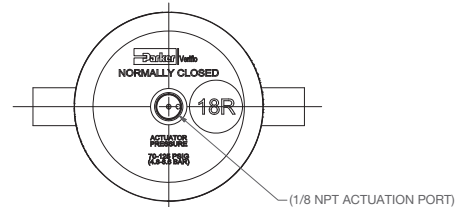
### 18RI SERIES TUBE STUB



### 18R AOPNC SERIES VACUSEAL™



### 18R AOPNC SERIES TUBE STUB



Safety Guide and Installation and Operating Instructions available at  
[www.parker.com/veriflo](http://www.parker.com/veriflo)

# 18R Series

## Ordering Information


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


Contact factory for most up to date lead time information.

Blue = Configurations that have selections in blue may have an extended lead time and a minimum order quantity.


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

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## Specifications

Materials of Construction	
<b>Wetted</b>	
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)
<b>Non-wetted</b>	
<b>Pneumatic</b>	
Actuator Housing	Aluminum
Piston	303 Stainless Steel
Bonnet	17-4 Stainless Steel
Support Diaphragm	Sliver plated Beryllium Copper/ Elgiloy® or equivalent
<b>Manual</b>	
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
<b>Limit Switch (Optional)</b>	
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	
<b>Flow Capacity</b>	
Manual	C <sub>v</sub> 1.3
Pneumatic	C <sub>v</sub> 1.0
<b>Leak Rate</b>	
Design Internal	< 4 X 10 <sup>-9</sup> scc/sec He Inboard Test Method
Design External	< 1 X 10 <sup>-9</sup> scc/sec He Inboard Test Method
Production Leak Test	Outboard sniffer probe at 1000-1500 psig, 20-25% Helium
<b>Surface Finish</b>	10 micro inch Ra
<b>Internal Volume</b>	11.77 cc
<b>Approx. Weight</b>	
Manual	1.85 lbs. (0.84 kgs)
Pneumatic	3.35 lbs. (1.52 kgs)
<b>Operating Conditions</b>	
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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VeriClean™ and VacuSeal™ are trademarks of Parker Hannifin Corporation

#### OFFER OF SALE:

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