

# 830 Series

UHP Stainless Steel Diaphragm Valve  
Welded

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

## Value Proposition:

Parker Hannifin Corporation's Veriflo Division presents the 830 valve for use in solar and semiconductor applications. The 830 has many of the 930 Series valve features but at a lower price point.

The maximum operating pressure for the manual valve is 300 psig. In addition, the 830 offers a LP (125 psig) and a new MP (300 psig) air actuation versions.



## Contact Information:

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## Product Features:

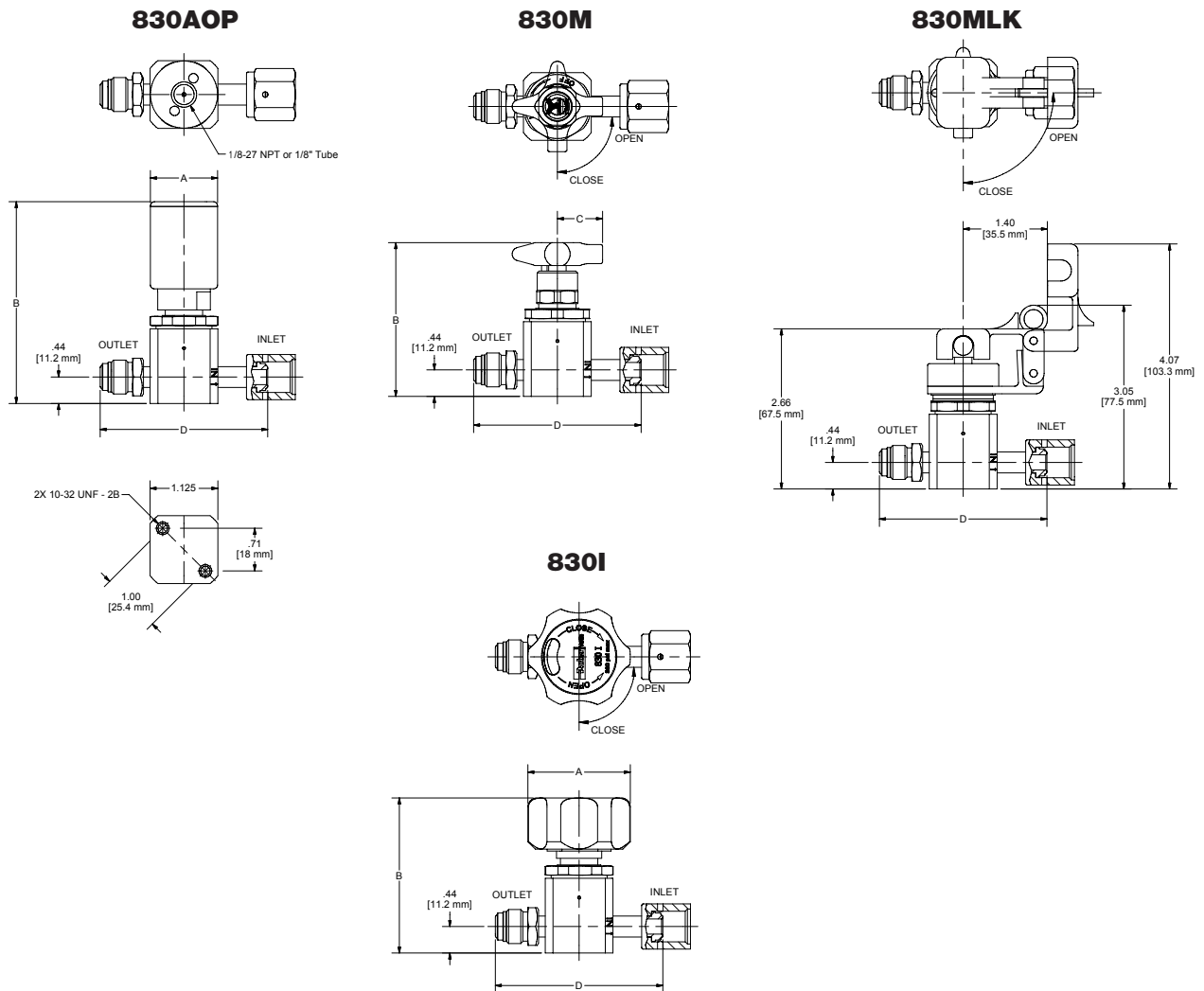
- Standard surface finish of 10 micro inch Ra with flash EP
- Internally threadless and springless
- Fully functional from vacuum to 300 psig
- Maintains key dimensions of Veriflo's 930 valve
- 100% Helium leak tested
- Minimal particle generation and particle entrapment areas
- Vericlean™, Veriflo's low sulfur high purity 316L Stainless Steel enhances electropolishing, welding, and corrosion resistance



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## Dimensional Drawings



Actuator Style	Actuator Diameter (A)	Height (B)	Lever Radius (C)
AOPLPNC	1.12	3.35	-
AOPLPNO	1.29	2.99	-
AOPMPNC	1.55	3.38	-
I	1.70	2.57	-
L	-	2.55	1.75
M	-	2.55	.75
S	2.00	2.83	-

Port Style	End-To-End Length (D)
FS	2.78
TS	1.76
TS6	2.24

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## Ordering Information

Build an 830 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](http://www.parker.com/veriflo)

Sample: **8** **30** **AOPLPNC** **S** **FS** **FM** **VESP**  
Finished Order: **830AOPLPNCFSFMVESP**

**1** **Basic Series**  
30 = 830

**2** **Type**  
*125 psig (8.6 barg) max pressure*  
AOPLPNC = Air Operated, Low Pressure, Normally Closed *Air Connection is 1/8" NPT*  
AOPLPNO = Air Operated, Low Pressure, Normally Open *Air Connection is 1/8" NPT*  
AOPLP1NC = Air Operated, Low Pressure, Normally Closed *Air Connection is 1/8" Tube*  
AOPLP1NO = Air Operated, Low Pressure, Normally Open *Air Connection is 1/8" Tube*

*300 psig (20.7 barg) max pressure*  
AOPMPNC = Air Operated, Medium Pressure, Normally Closed *Air Connection is 1/8" NPT*

I = Indicating Handwheel  
L = Lever  
M = Mini Lever  
S = Spin Handwheel

**3** **Body Material**  
S = VeriClean™ 316L Stainless Steel

**4** **Port Style**  
FS = 1/4" Face Seal  
TS = 1/4" Tube Stub *Standard only when configured as TSTS*  
TS6 = 3/8" Tube Stub  
**Note:** For Multiport: See 25000178 Valve Selection Guide. All Multiport configurations are Special Order.

**5** **Port Configuration**  
M = Male Face Seal  
F = Female Face Seal

**6** **Optional Features**  
This section can have multiple options  
LK = LockOut-TagOut *LK includes LOTO Clamp for M type Valve*  
LSC = Limit Switch Closed *Available with AOPLPNC or AOPMPNC options only*  
LSO = Limit Switch Open *Available with AOPLPNC or AOPMPNC options only*  
PM = Panel Mount *Not available on I and AOP versions*  
VESP = Vespel™ Seat *Recommended for Nitrous Oxide (N2O) Service*

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## Specifications

Materials of Construction	
<b>Wetted</b>	
Body	VeriClean™ 316L Stainless Steel
Diaphragm	Elgiloy® or equivalent
Seat Options	PCTFE (std) or Vespel®
<b>Non-wetted</b>	
Cap	17-4 PH
Nut	316L Stainless Steel
Actuator Housing	Anodized Aluminum
Operating Conditions	
<i>(Operating limits based upon pressure applied at inlet port.)</i>	
Maximum Pressure	
AOPLP	125 psig (8.6 barg)
AOPMP, Manual	300 psig (20.7 barg)
Minimum Pressure	
Vacuum	
Temperature	
-40°F to 150°F (-40°C to 66°C)	
AOP Actuation Pressure	
75 psig (5 barg) nominal	
AOP Air Inlet	
1/8-27 NPT	

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

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

Functional Performance	
<b>Design</b>	
Proof Pressure	
AOPLP	188 psig (13 barg)
AOPMP, L, I, M, S	450 psig (31 barg)
Burst Pressure	
AOPLP	375 psig (26 barg)
AOPMP, L, I, M, S	900 psig (62 barg)
<b>Flow Capacity</b>	
All AOP and Spin Handwheel	C <sub>v</sub> 0.30
Lever (L), Mini Lever (M), Indicator Knob (I)	C <sub>v</sub> 0.22
<b>Leak Rate</b>	
Inboard Test Method	
Internal	≤ 1 X 10 <sup>-9</sup> scc/sec He
External	≤ 2 X 10 <sup>-10</sup> scc/sec He
<b>Surface Finish</b>	
10 micro inch Ra with flash EP	
<b>Internal Volume</b>	
2.64 cc (including Face Seal Fittings)	
<b>Approx. Weight</b>	
1.75 lbs. (0.80 kg)	
Limit Switch (Optional)	
Type	Single Pole, Single Throw (SPST) momentary action, non-adjustable
Rating	
AOPLPLSC, AOPMPLSC	1/4 amp at 115 vac (normally closed)
AOPLPLSO, AOPMPLSO	1/2 amp at 115 vac (normally open)

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