



Hello everybody,

COVID-19. This is an emergency post, asking for help. Please share this post as much as you can, so it can reach the maximum audience.

Ametic, our Spanish Electronics and IT Association of Industries, in a call by Spanish Ministry of Industry, Trade and Tourism is managing the support to scale up production in Spanish companies that manufactures artificial Ventilators. Premo has been appointed to help and co-ordinate technically and industrial efforts. We need three models of miniature electro valves urgently:

- Parker X-Valve X-1-05-L-F
- Parker VSO LowPro model 8
- Parker VSO LowPro model 4

**These valves can save lives today!** It's important they must be the exact referenced part number, so manufacturing can be done without changes or modifications. Pictures included below.

If you have stock of those valves, please contact Mar Villarrubia ([mar.villarrubia@grupopremo.com](mailto:mar.villarrubia@grupopremo.com)).

Thanks a lot for your help.





More detailed data about the valves:


## X-Valve® Miniature Pneumatic Solenoid Valve

### 8mm Solenoid Valve



The X-Valve® is a miniature pneumatic solenoid valve measuring only 8 mm in width. The compact size, light weight and low power consumption of the X-Valve® is the ideal solution for portable applications and those applications with limited space and available power. The body construction of the X-Valve® is suited for manifold or barbed-tube pneumatic connections and is available in 2-way normally closed and 3-way universal configurations.

#### Features

- Direct PC and side-to-side mounting enables compact and efficient system design
- Large range of pressure options (6, 30 and 100 psig) to meet various application requirements
- Light weight valve construction is ideal for portable applications
- Available low power model (0.5 Watt) for continuous duty applications
- RoHS compliant 

#### Typical Applications

- Portable Equipment
- Blood Pressure Monitoring
- Wound Therapy
- Air and Oxygen Delivery
- Sensor Zeroing

### Product Specifications

#### Mechanical

##### Valve Type:

3-Way, Solenoid-actuated poppet style  
 - Universal (6 psig & 30 psig models)  
 - Normally Closed (100 psig model)  
 2-Way Solenoid-actuated poppet style  
 - Normally Closed, Bi-Directional Flow (6 & 30 psig models)  
 - Normally Closed, Directional Flow (100 psig model)

**Media:** Non-Reactive gases

##### Operating Environment:

32 to 122°F (0 to 50°C)

##### Storage Temperature:

-40 to 158°F (-40 to 70°C)

##### Dimensions:

- Length: 0.92 in (23.4 mm)  
 - Width: 0.31 in (7.9 mm)  
 - Height: 0.48 in (12.2 mm)  
 to Barb End / 0.35 in (8.9 mm)  
 to Manifold Face

##### Spacing:

0.315 in (8 mm) center

##### Porting:

- Barbs for 1/16 in (1.5 mm)  
 I. D. Tubing, (1/32 in Wall Max.)  
 - Manifold Mount (Gasket accessory  
 required, see ordering info)

**Weight:** 0.16 oz (4.5 g)

##### Internal Volume:

0.0056 in<sup>3</sup> (0.092 cm<sup>3</sup>)

#### Electrical

##### Power Options:

0.5 Watt (6 psig model)  
 1.0 Watt (30, 100 psig model)

##### Voltage Options:

3, 5, 12 or 24 VDC

Further power reduction may be achieved through the use of spike and hold or PWM electrical control.

##### Electrical Connections:

PC Pins, 4 mm centers (all models)  
 Lead Wire/Connector Assembly  
 (Accessory, see ordering info)

#### Wetted Materials

##### Bobbin/Body:

PBT (Polybutylene terephthalate)

##### Pole & Plunger:

430 FR Series Stainless Steel

##### Seal (Options):

FKM, EPDM, Silicone

##### Other:

302 Series Stainless Steel

#### Performance Characteristics

##### Leak Rate: Tested with Air

<0.016 sccm (6 psig Silicone)  
 <0.016 sccm (30 psig FKM)  
 <0.16 sccm (6 psig EPDM & FKM)  
 <0.2 sccm (100 psig only)

##### Response:

< 20 ms maximum cycling  
 (FKM, Silicone)  
 < 50 ms maximum cycling (EPDM)

##### Pressure/Vacuum:

0 to 6 psid (0.4 bar differential)  
 0 to 30 psid (2.0 bar differential)  
 0 to 100 psid (6.9 bar differential)

##### Proof Pressure:

200 psig (13.7 bar)

##### Minimum Flow:

4 slpm @ 6 psid  
 (0.4 bar differential)  
 6 slpm @ 30 psid  
 (2.0 bar differential)  
 9 slpm @ 100 psid  
 (6.9 bar differential)

##### Orifice Sizes/Equivalent Cv:

0.045" (1.14 mm) / 0.018  
 0.030" (0.75 mm) / 0.010  
 0.020" (0.5 mm) / 0.005

##### Reliability:

Life Cycle rating of 25 million  
 (worst case tested, no performance  
 degradation)



## VSO® LowPro Miniature Proportional Valve

### Low Profile Proportional Valve



The VSO® LowPro is a miniature proportional valve that controls the flow rate of inert gases at pressures up to 100 PSIG (6.9 bar). Typical flow rates up to 57 SLPM with a typical power of 1 Watt at room temperature. At just 16 mm wide by 14 mm tall, the valve can be populated into the smallest portable device improving performance, size and weight. With orifice sizes ranging from 0.030" (0.76) up to 0.080" (2.03 mm) and a weight of 12 g, the VSO® LowPro can perform the function of valves three times its size without sacrificing the power. Mounting only requires a simple, machined manifold.

#### Markets

- Portable Oxygen Concentrators
- Ventilators
- Patient Monitors

#### Typical Applications


- Pressure Control
- Volumetric Flow Control
- Pulse Dose Control

### Product Specifications

#### Physical Properties

<b>Valve Type:</b>
2-Way Normally Closed
<b>Media:</b>
Air, Oxygen or any non-reactive, non-condensing gases
<b>Operating Environment:</b>
32 to 131°F (0 to 55°C)
<b>Storage Temperature:</b>
-40 to 158°F (-40 to 70°C)
<b>Length:</b>
0.80 in (20 mm)
<b>Width:</b>
0.63 in (16 mm)
<b>Height:</b>
0.55 in (14 mm)
<b>Porting:</b>
Face Seal to Manifold with integrated FKM seal
<b>Weight:</b>
0.42 oz (12 g)

#### Features

- Very low power required of typically 1 Watt enables portable capability and low power control increasing battery life or reducing the size of your power supply or battery
- Low profile design simplifies mounting and eliminates cartridge configurations that require complex & expensive machining
- Delivers consistent performance on every valve
- Reach, RoHS, ISO 15001, IP65, and CE compliant 

#### Electrical

<b>Power:</b>
1.0 Watt Typical 2.0 Watt Maximum
<b>Voltage:</b>
5, 12 and 24 VDC See Table 2
<b>Electrical Termination:</b>
4.5" (114 mm) Wire leads [26 AWG] with Molex 50-57-9402 connector

#### Wetted Materials

<b>Body &amp; Cover:</b>
Aluminum 430 Stainless Steel
<b>Armature &amp; Spring:</b>
Carbon Steel (Nickel Plated) Stainless Steel
<b>Coil:</b>
Urethane Polyvinyl Butyral
<b>All Others:</b>
FKM, Epoxy
<b>Regulatory:</b>
Compliant with RoHS directive (2002/95/EC), REACH EC 1907/2006, ISO 15001, IP65(IEC/EN 60529), and CE

#### Performance Characteristics

<b>Leak Rate: *</b>
Internal: 0.5 SCCM of Air with a differential pressure of 100 psid (6.9 bar) External: 0.2 SCCM of Air with a differential pressure of 100 psid (6.9 bar) <i>* The leakage shall not exceed the above values.</i>
<b>Operating Pressure:</b> See Table 1
0 - 100 psi (6.9 bar)
<b>Vacuum:</b>
0-27 in Hg (0-686 mm Hg)
<b>Proof Pressure:</b>
300 psi (20.7 bar)
<b>Orifice Sizes:</b>
0.030 in (0.76 mm) 0.040 in (1.02 mm) 0.050 in (1.27 mm) 0.080 in (2.03 mm)
<b>Hysteresis:</b>
10% of full scale current (Typical) 15% of full scale current (Maximum)
<b>Recommended Filtration:</b>
40 µm (not supplied)
<b>Response time:</b>
10 ms Typical
<b>Reliability:</b>
100 Million Cycles 0.96 Reliability Factor 99% Confidence Interval