Sentronic<sup>LP</sup> | 617 Series
Proportional Technology
Sentronic<sup>LP</sup>

The Sentronic<sup>LP</sup> is a highly efficient and cost-effective option for your pressure regulation requirements. Offering a small footprint, an easy to use and modular design, and advanced software capabilities, the Sentronic<sup>LP</sup> and the full Sentronic range offers unrivaled value and product versatility to optimize your process, whatever the application requirements.

- Low power consumption (< 4 Watt) due to pilot controlled system
- A versatile, compact and lightweight design
- Intelligent digital communication and simple operation
- Pressure remains stable under flow conditions
- Holds pressure on loss of power
- Excellent value option

The Manifold Version

- Space saving design
- Only one pressure supply is needed, allowing for economic, simple and quick installation
- Offers the highest capabilities on the market – can hold up to 10 valves

M12 Connection:

Power Supply
Target/Actual Value

Pressure Supply

Digital Display

Adjustment Buttons

Output:
1/4 , 3/8 or 1/2 Connection

Protective Ground Connection: M4

Mounting

Exhaust:
1/4 , 3/8 or 1/2 Connection
**Sentronic**<sub>LP</sub> Electronic Pressure Regulator

### 1/4 to 1/2 tapped body or subbase mounted body

Sentronic<sup>LP</sup> is a low power, pilot operated electronic proportional valve. Like the entire Sentronic product line, performance can be modified as needed for specific applications using the free ASCO DaS setup software (USB interface cable required).

<table>
<thead>
<tr>
<th>Fluids</th>
<th>Ambient Temperature</th>
<th>Body</th>
<th>Internal Parts</th>
<th>Seals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air or neutral gas, filtered at 50 µm condensate-free, lubricated or un lubricated, class 5 according to ISO 8573·1·2010 [7:4:4]</td>
<td>0 °C to 50 °C (32 °F to 122 °F)</td>
<td>Aluminum</td>
<td>POM (polyacetal)</td>
<td>NBR (nitrile)</td>
</tr>
</tbody>
</table>

### General Valve Information

- **Fluid Temperature**: 0 °C to 60 °C (32 °F to 140 °F)
- **Minimum Required Pressure**: At least 15 psi above the maximum outlet pressure
- **Pressure Range**: 0 – 50 psi, 0 – 100 psi, 0 – 150 psi
- **Setpoint**: 0 – 10 V (Impedance 100 kΩ), 0 – 20 mA/4 – 20 mA (Impedance 250 Ω)
- **Hysteresis**: 1% of span
- **Linearity**: 1% of span
- **Repeatability**: 1% of span
- **Minimum Setpoint**: 100 mV (0.2 mA/4.2mA) with shut-off function
- **Minimum Outlet Pressure**: 1% of span
- **Failsafe Behavior**: Pressure hold on loss of power, without control

### Electrical Characteristics

<table>
<thead>
<tr>
<th>Nominal Diameter DN (mm)</th>
<th>Voltage *</th>
<th>Max. Power (W)</th>
<th>Max. Current (mA)</th>
<th>Insulation Class</th>
<th>Degree of Protection</th>
<th>Electrical Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>4, 8, 15</td>
<td>24 VDC ± 10%</td>
<td>3.9 W (&lt; 1 W at pressure)</td>
<td>160</td>
<td>H</td>
<td>IP65</td>
<td>5-pin M12 connector (not supplied)</td>
</tr>
</tbody>
</table>

* Max. ripple: 10%

### Specifications

<table>
<thead>
<tr>
<th>Ø Ports NPT or BSPP</th>
<th>Ø Orifice DN (mm)</th>
<th>Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>C&lt;sub&gt;v&lt;/sub&gt;, Flow Factor (K, Nm&lt;sup&gt;2&lt;/sup&gt;/h)</td>
</tr>
<tr>
<td>1/4</td>
<td>4</td>
<td>0.50 (0.43)</td>
</tr>
<tr>
<td>3/8</td>
<td>8</td>
<td>1.39 (1.20)</td>
</tr>
<tr>
<td>1/2</td>
<td>15</td>
<td>5.57 (4.80)</td>
</tr>
</tbody>
</table>

Visit our website at ASCO.com or contact us at (800) 972-2726
How to Order

Threaded Connection
G = ISO 228 (BSPP)
B = NPT

Product Series
617

Revision
A = Initial release

Size
0 = Manifold Version + pressure hold (DN4)\(^1\)
4 = 1/4 + pressure hold (DN4)
6 = 3/8 + pressure hold (DN6)
8 = 1/2 + pressure hold (DN15)

Setpoint
0 = 0 – 10 V
1 = 0 – 20 mA
2 = 4 – 20 mA
5 = 2 Bit, 4 pressure select

\(^1\) See Accessories for individual subbases for this Manifold Version
\(^2\) No Digital IN possible

Pressure Range
Max. Inlet Pressure
PA = 0 – 50 psi 90 psi
PB = 0 – 100 psi 140 psi
PC = 0 – 150 psi 190 psi

Options
A00 = Standard
A07 = Oxygen clean

Input/Display w/Buttons
0 = Standard not connected
1 = Standard connected + Display
8 = Digital IN + Display

Output 2
0 = Not connected
1 = Digital OUT\(^2\) (Standard)

Feedback Type
0 = 0 – 10 V
1 = 0 – 20 mA
2 = 4 – 20 mA
7 = 2 Bit, 4 pressure select

Dimensions: mm (inches)

DN 4
Inline version
Weight: 0.49kg (1.08lbs)
Dimensions: mm

DN 4
Subbase version
Weight: 0.49kg (1.08lbs)

DN 4
Joinable subbase
Weight: 0.3kg (0.66lbs)
Dimensions: mm

**DN 8**
Weight: 0.93kg (2.05lbs)

![Diagram of DN 8 dimensions](image1)

**DN 15**
Weight: 1.33kg (2.93lbs)

![Diagram of DN 15 dimensions](image2)
Connector Pin Out / Cable Wiring

<table>
<thead>
<tr>
<th>Pin</th>
<th>Description</th>
<th>6-wire cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24 VDC voltage supply</td>
<td>brown</td>
</tr>
<tr>
<td>2</td>
<td>Analog Setpoint Input</td>
<td>white</td>
</tr>
<tr>
<td>3</td>
<td>Supply common</td>
<td>blue</td>
</tr>
<tr>
<td></td>
<td>Analog common*</td>
<td>yellow</td>
</tr>
<tr>
<td>4</td>
<td>Analog output (feedback)</td>
<td>black</td>
</tr>
<tr>
<td>5</td>
<td>Digital Output (pressure switch)</td>
<td>gray</td>
</tr>
<tr>
<td>Body</td>
<td>EMC screen</td>
<td>shield</td>
</tr>
</tbody>
</table>

* A 6-wire cable with separate common for the command signal is used for cable lengths over 2m to minimize the voltage drop for the command signal.

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<thead>
<tr>
<th>Pin</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24 VDC voltage supply</td>
</tr>
<tr>
<td>2</td>
<td>Input signal 1 (LSB)</td>
</tr>
<tr>
<td>3</td>
<td>Supply common</td>
</tr>
<tr>
<td>4</td>
<td>Input signal 2 (MSB)</td>
</tr>
<tr>
<td>5</td>
<td>Unused</td>
</tr>
</tbody>
</table>

Accessories

- **5 Pin 12mm FEMALE Straight Field Attachable Connectors**
  - PG 9 Cable Gland: TC09F20000000000
- **5 Pin 12mm FEMALE 90 DEGREE Field Attachable Connectors**
  - PG 9 Cable Gland: TC09F20000000000
- **Micro Female 5 Pole Straight 6 Wire 24 AWG, Shielded**
  - 3 Meter: TC0503MMS000671Y
  - 5 Meter: TC0505MMS000671Y
- **Micro Female 5 Pole 90 Degree 6 Wire 24 AWG Euro Color Code, Shielded**
  - 3 Meter: TD0503MMS000671Y
  - 5 Meter: TD0505MMS000671Y
- **Micro F/M 4 Pole Straight 22 AWG Euro Color Code**
  - (for connecting to G3 analog I/O modules or digital I/O for 2Bit Setpoint units)
  - Unshielded: 3 Meter - TD0403MIETA04000
  - Shielded: 3 Meter - TD0403MMETA04000
  - Unshielded: 5 Meter - TD0405MIETA04000
  - Shielded: 5 Meter - TD0405MMETA04000
- **Micro F 90°/M Straight 22 AWG Euro Color Code**
  - (for connecting to G3 analog I/O modules or digital I/O for 2Bit Setpoint units)
  - Unshielded: 2 Meter - TD0402MIETA04000
  - Shielded: 3 Meter - TD0403MMETA04000
  - Unshielded: 5 Meter - TD0405MIETA04000
  - Shielded: 5 Meter - TD0405MMETA04000

**Manifold (individual subbases that join together)**

- Manifold for 617 DNA with pressure supply/exhaust 3/8 NPT & output 1/4 NPT*: N5078180020000
- Manifold for 617 DNA with pressure supply/exhaust G3/8 & output G1/4 (BSPP): N5078180000000

**PC Software & Cable Connectors**

- DaS Light: Data Acquisition Software for Sentronic2 - basic parameters - free download at asco.com: 99100110
- USB Interface for software, 2m cable: N50930300100000
- RS 232 cable converter, 2m cable with 9-pin Sub-D (plug connector): 88100732

*Manifold ships with required hardware and gaskets for connecting manifolds together.*