Safe for Hazardous Metering

The choice for simple metering in hazardous applications. The ProMinent® Sigma/1 Explosion-Proof motorized pump may be operated manually by adjusting the stroke length knob (displacement per stroke) at a constant stroke frequency using a constant or variable speed motor. Automatic control of displacement per stroke via analog (4-20mA) signal is possible with optional motorized stroke positioning systems (Also Explosion-Proof).

The ProMinent® Sigma/1 is a mechanically-actuated diaphragm metering pump capable of flow rates to 38 gph (144 L/h) and pressures up to 174 PSI (12 bar).

Features and benefits

- UL listed, CSA certified, Class I Groups C&D and Class II Groups F&G
- Safe metering in hazardous/classified areas
- Mechanically-actuated diaphragm metering pump
- Rugged metal inner casing for components, with a corrosion-resistant housing
- PVDF and stainless steel liquid ends available
- Three drive versions available
- Reproducible metering accuracy at defined conditions and correct installation better than ±2% (stroke length area 30-100 %)

Applications

- Chemical process
- Mining
- Petrochemical
- Heavy industrial
- Pharmaceutical
- Fine dust environments
- Generally hazardous areas
## Capacity Data

<table>
<thead>
<tr>
<th>Pump version:</th>
<th>*Capacity at Max. Pressure</th>
<th>Max. Stroke Rate</th>
<th>Output per Stroke</th>
<th>Max. Suction Lift (water) ft.</th>
<th>Max. Suction Pressure psig (bar)</th>
<th>Suction/Discharge Connector</th>
<th>Shipping Weight (approx.) lbs. (kg)</th>
<th>Weight w/Motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1Ba HM**</td>
<td>12017 PVT 145 (10) 5.2 (20) 88 4 23 (7) 14.5 (1) 1-1/2 MNPT 41.0 (20)</td>
<td>12017 SST 145 (10) 5.2 (20) 88 4 23 (7) 14.5 (1) 1-3/8 FNPT 48.0 (22)</td>
<td>12035 PVT 145 (10) 11.1 (42) 172 4 23 (7) 14.5 (1) 1/2 MNPT 41.0 (20)</td>
<td>12035 SST 145 (10) 11.1 (42) 172 4 23 (7) 14.5 (1) 3/8 FNPT 48.0 (22)</td>
<td>10050 PVT 145 (10) 15.8 (60) 240 4 23 (7) 14.5 (1) 1/2 MNPT 41.0 (20)</td>
<td>10050 SST 145 (10) 15.8 (60) 240 4 23 (7) 14.5 (1) 3/8 FNPT 48.0 (22)</td>
<td>10022 PVT 145 (10) 6.8 (26) 88 5.1 19.6 (6) 14.5 (1) 1/2 MNPT 41.0 (20)</td>
<td>10022 SST 145 (10) 6.8 (26) 88 5.1 19.6 (6) 14.5 (1) 3/8 FNPT 48.0 (22)</td>
</tr>
</tbody>
</table>

* Flow rates listed are for 1/8 HP standard motor. Addition of 1/3 HP or 1/2 HP motor may increase output. Contact factory for details.

** Sigma/1 Metering Pumps are also available in Non Explosion-Proof microprocessor based control versions

## Sigma/1 Explosion-Proof Motor Specs

<table>
<thead>
<tr>
<th>HP</th>
<th>kw</th>
<th>ENCLOSURE</th>
<th>PH</th>
<th>Hz</th>
<th>VOLTS</th>
<th>AMPS</th>
<th>DUTY</th>
<th>INSL</th>
<th>WT</th>
<th>Overload</th>
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</thead>
<tbody>
<tr>
<td>1/3</td>
<td>0.25</td>
<td>EPFC</td>
<td>1</td>
<td>60</td>
<td>115/208-230</td>
<td>6.6/3.1-3.3</td>
<td>Continuous</td>
<td>B3</td>
<td>26</td>
<td>Auto</td>
</tr>
<tr>
<td>*1/2</td>
<td>0.37</td>
<td>EPFC</td>
<td>3</td>
<td>60</td>
<td>208-230/460</td>
<td>2.2-2.4/1.2</td>
<td>Continuous</td>
<td>F3</td>
<td>28</td>
<td>Auto</td>
</tr>
</tbody>
</table>

*Inverter Duty Motor

ProMinent motorized explosion proof pumps are also available in the Sigma/2, Sigma/3 and ProMus Models. We also offer the EXtronic, solenoid driven explosion proof pump.