



# Beaver Creek Analytical, LLC

## Underwater Piston Pump – BCAEMXIIV

### DESCRIPTION

Capable of pumping water subsea at depths up to 3000 m, our underwater piston pump delivers reliable flow from 5 mL/min to 200 mL/min. Encased in Polyurethane, the pump is capable of being submerged in aggressive media for extended periods (tested up to several weeks). The oscillating piston pump operates with a 24VDC pulse (10 ms), and flow rate can be adjusted by changing the number of pulses per second. The maximum flow rate is dictated by the overall system's Cv value. This pump is not damaged when the flow is restricted.

### DESIGN

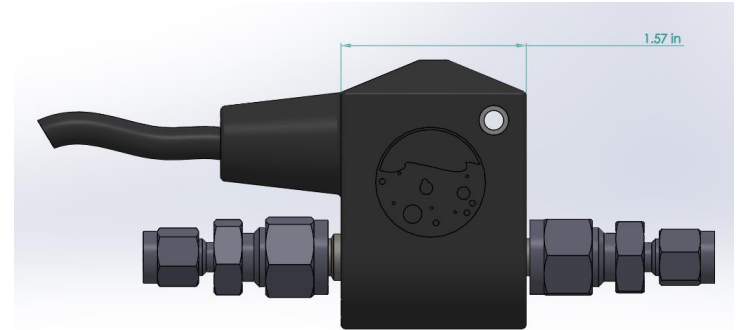
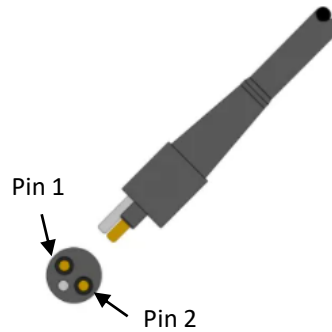


Figure 1. The BCAEMXIIV pump with 1/8" Swagelok adapters.

### Specifications

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<b>Depth Rating</b>	<ul style="list-style-type: none"> <li>3000 m</li> </ul>
<b>Flow Rate</b>	<ul style="list-style-type: none"> <li>200 mL/min max</li> <li>Flow is system Cv dependent, 20 mL/min is typical in a system using 1/8" tubing.</li> </ul>
<b>Pressure</b>	<ul style="list-style-type: none"> <li>2.4 bar differential</li> <li>300 bar absolute</li> </ul>
<b>Power</b>	<ul style="list-style-type: none"> <li>24 VDC, 10 ms pulsed</li> <li>12 VDC available on request</li> <li>9.8 Ohm solenoid coil</li> <li>Diode Protected</li> <li>60 W 10 ms Power Draw</li> <li>3 W Typ. Average Power Draw</li> <li>15 W Max. Average Power Draw</li> </ul>
<b>Control</b>	<ul style="list-style-type: none"> <li>Pulsed Duty Cycle</li> <li>5 Hz Typical, 25 Hz Max</li> </ul>
<b>Approx. Size</b>	<ul style="list-style-type: none"> <li>2" x 2" x 1.2"</li> <li>50 mm x 50 mm x 20 mm</li> </ul>
<b>Wetted Materials</b>	<ul style="list-style-type: none"> <li>Stainless Steel, PTFE</li> </ul>
<b>Filter Requirements</b>	<ul style="list-style-type: none"> <li>100 mesh or finer</li> </ul>
<b>Fittings</b>	<ul style="list-style-type: none"> <li>8 mm tube</li> <li>Swagelok adapters available</li> </ul>
<b>Weight</b>	<ul style="list-style-type: none"> <li>240 g, 0.53 lbs. - with Swagelok adapters and 24" in line connector</li> </ul>
<b>Mount</b>	<ul style="list-style-type: none"> <li>1.25" Spacer for No 8 screws</li> </ul>



By default, the BCAEMXIIV comes with a 24" whip (Impulse, MCIL-2-MP-IM) and cuff but other connectors (or bare wire) can be used on request (additional lead time and price adjustments may be

Male Plug

- Pin 1 = Pulsed 24 VDC
- Pin 2 = 24V Return.
- **\*Continuous 24 V results in overheating damage\***

### AVAILABILITY

CAD available on Request.

Price: \$508.00 USD

Contact: [sales@bcanalytical.com](mailto:sales@bcanalytical.com)

Brochure Release: 2021-8-27