

Mini Submersible Pump

SBE 5M



The SBE 5M pump module consists of a centrifugal pump head and a long-life, DC, ball-bearing motor contained in a compact, titanium pressure housing usable to 10,500 meters (34,400 ft) deep. A plastic housing for depths to 600 meters (1960 ft) is available as an option. The pump impeller and electric drive motor are coupled magnetically through the housing, providing high reliability by eliminating moving seals. Motor speed and pumping rate remain constant over the entire input voltage range. The motor drive electronics is intrinsically protected against accidental reversed polarity.



APPLICATIONS

The SBE 5M is standard on the SBE 19*plus* V2 SEACAT Profiler CTD, and is optional on the SBE 16*plus* V2 and 16*plus*-IM V2 SEACAT C-T Recorders. The pump flushes water through the conductivity cell at a constant rate, independent of the CTD's motion, improving dynamic performance. For applications requiring pumping through additional sensors (for example, a dissolved oxygen sensor), use the SBE 5T or 5P pump instead.

Specify:

- Option **5M-1** for profiling (continuous duty) applications such as the SBE 19*plus* V2.
- Option **5M-2** for moored (pulsed duty) applications such as the SBE 16*plus* V2 or 16*plus*-IM V2.

Contact Sea-Bird for use in other applications.

SPECIFICATIONS

Option 5M-1 (continuous duty):
Input voltage range 9 - 18 VDC

Flow Rate 25 ml/s Supply current 95 mA
Note: Supply current is independent of operating voltage.

Option 5M-2 (pulsed duty):
Input voltage range 6 - 18 VDC

Pulse Duration	Flow Volume	Electrical Charge
0.5 seconds	15 ml	0.148 Amp-seconds
1.0 seconds	21 ml	0.283 Amp-seconds
1.5 seconds	31 ml	0.418 Amp-seconds
2.0 seconds	40 ml	0.553 Amp-seconds

Weight

With standard **titanium** housing:
 In Air - 0.42 kg (0.91 lbs); In Water - 0.28 kg (0.60 lbs)
 With optional **plastic** housing:
 In Air - 0.28 kg (0.60 lbs); In Water - 0.13 kg (0.29 lbs)

