

SBE 5M

Mini Submersible Pump

The SBE 5M Mini Submersible Pump is a modular component used on several Sea-Bird CTD packages. The highly reliable pump flushes water through the conductivity cell at a constant rate, independent of the CTD's motion, improving dynamic performance. The SBE 5M is standard on the SBE 19plus V2 SeaCAT Profiler CTD, and is optional on the SBE 16plus V2 and 16plus-IM V2 SeaCAT CT(D) Recorders. For applications requiring pumping through additional sensors (for example, a dissolved oxygen sensor), use the SBE 5T or 5P pump instead.

The SBE 5M may also be suitable for custom applications.



Features

- Centrifugal pump head.
- Long-life, DC, ball-bearing motor.
- Pump impeller and electric drive motor coupled magnetically through housing, providing high reliability by eliminating moving seals.
- Motor speed and pumping rate remain constant over entire input voltage range.
- Motor drive electronics intrinsically protected against accidental reversed polarity.
- Depths to 600 or 10,500 m.
- Five-year limited warranty.

Options

- Profiling (continuous duty) or moored (pulsed duty) applications.
- Plastic (600 m) or titanium (10,500 m) housing.
- XSG or wet-pluggable MCBH connector.

Performance

5M.xx1x (pulsed duty for moored instruments)	Input voltage range 6 - 18 VDC.		
	Pulse Duration	Flow Volume	Electrical Charge *
	0.5 sec	14 ml	0.018 Amp-sec
	1.0 sec	27 ml	0.040 Amp-sec
	1.5 sec	40 ml	0.062 Amp-sec
	2.0 sec	53 ml	0.085 Amp-sec
* Measured with 10 V input power.			
5M.xx2x (continuous duty for profiling instruments)	Input voltage range 9 - 18 VDC.		
	Flow Rate 25 ml/s.		
	Supply current 95 mA		
	Note: Supply current is independent of operating voltage.		

Mechanical

Plastic housing, 600 m	Weight in air 0.3 kg, in water 0.1 kg
Titanium housing, 10,500 m	Weight in air 0.4 kg, in water 0.3 kg

