



Peristaltic Pump

Model 410

Designed for field use, the reversible flow Peristaltic Pump from Solinst is ideal for vapor sampling or water sampling from shallow wells and surface water. It can be used for vacuum pumping and for pressure delivery of liquids or gases.

Compact and lightweight, the Peristaltic Pump has no vents, grates or openings. This makes it water resistant, easy to use in the field and easy to maintain and repair. The metal case is extremely robust and water resistant. A handle and one easy-access control on the top of the pump make it perfect for fieldwork. The pump measures 13" x 5" x 6-1/2" (33 cm x 13 cm x 17 cm) and weighs only 8 lbs (3.6 Kg).

The mechanical peristaltic operation uses rotating rollers to depress the silicone tubing, creating a vacuum, which displaces any fluid or gas in the chosen direction. It is effective to depths up to the suction lift limit, which varies with elevation, and can be as much as 33 ft. or 10 m at sea level.

Power

A 12 ft. (4 m) power cord uses alligator clips to allow easy connection to almost any 12 volt DC power source that can supply at least 3-5 amps at maximum draw (such as auto, marine or small gel cell battery). The pump may be connected directly to your vehicle battery. The variable speed motor is reversible, has an easily replaced fuse and has reverse polarity protection to prevent damage to the pump.



Tubing

The standard pump tubing is 5/8" OD (16 mm) medical grade silicone, which attaches easily to 1/2" OD (13 mm) down-hole tubing. An optional conversion kit, which allows the use of 3/8" OD (10 mm) tubing, is available to allow lower sampling rates. This tubing attaches easily to 1/4" OD (6 mm) down-hole tubing.

To provide high sample integrity, the sample comes in contact only with the tubing, which is easy to clean or replace. Replacing the tubing between locations avoids the possibility of cross-contamination. To reduce lengthy decontamination procedures, simply dedicate the inexpensive down-hole tubing.

Sampling Rates

The Model 410 Peristaltic Pump has variable pumping rates and can be fitted with 2 different sizes of silicone pump-head tubing. With the standard 5/8" OD (16 mm) tubing it delivers from 120 ml/min to almost 3.5 L/min.

The optional 3/8" OD (10 mm) tubing adaptor kit allows a sample rate as low as 40 ml/min and up to 900 ml/min. This low rate is ideal for low-flow sampling and the filling of small sample bottles.

The Peristaltic Pump's reverse action is ideal for back flushing when using the Solinst Drive-Point Profiler (see Model 660 data sheet).

Applications

- Groundwater sampling from shallow wells
- Surface water sampling
- Vapor sampling
- Back flushing Solinst Drive-Point Profilers

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