

OTT SLD - Doppler Flow Sensor 1MHZ

Product #: **22.300.030.9.01**

USD Price: Contact Hach

The OTT SLD is a stationary unit for continuously measuring flow velocity and water level in rivers, streams, and other open channels with flowing water. This energy efficient system employs the acoustic Doppler principle of operation to provide reliable measurement results, even at high water level and high concentrations of suspended material. The sensor is designed for installation at the water's edge and is easily installed using a convenient stainless steel support structure that allow for quick and cost-efficient maintenance. The OTT EasyUse software facilitates systematic on-site setup using a PC or tablet.

The SLD is fitted with two horizontal ultrasonic transducers that measurement water velocity perpendicular to flow. Water level is measurement by an optional vertical acoustic beam using the travel time method and cross-referenced with an integrated pressure measurement cell. The internal signal processor evaluates collected measurements before storing or transmitting velocity, water level or calculated total discharge.

Total discharge can be calculated internally or by a datalogger that is connected to the system via SDI-12, RS-485 using SDI-12, or Modbus. The SLD unit is a highly flexible continuous discharge measuring system that may be used in a large variety of applications.

Technology
Equipped with two horizontal ultrasonic transducers "looking sideways" into the flow (Side Looking Doppler) to measure water velocity.

Level Measurement
An optional vertical transducer and integrated pressure cell measures the water level.

Internal Processing
All measurement values are analyzed, verified and processed by an integrated signal processor, before being used in the calculation of discharge.

Internal & External DIscharge calculation
Velocity measurements from up to nine cells are used, along with measured water level, to calculate discharge either internally in the OTT SLD or externally in a data logger.

Communication
All measurements can be retrieved using SDI-12, RS485 , RS232 or Modbus RTU protocols and are available for storing in a data collection platform, such as the OTT netDL station manager.

Specifications

*Parameters Measured:	Flow Velocity
Accuracy:	Velocity: 1% of measured value +/- 5 mm/s Water Level: +/- 3 mm
Cable Length:	RS 422/485 max. 547 yd (500 m) (9600 baud)

	RS232/SDI-12 max. 71.08 yd (65 m) (9600 / 1.200 baud)
Interface:	RS-232; SDI-12 or SDI-12 via RS-485; Modbus (optional)
Measuring Range:	Velocity: - 32.808 - +32.808 ft/s (-10 - +10 m/s)
	Water Level: 0.492 - +32.808 ft (0.15 - 10 m)
Memory:	9 MB
Minimum water level:	6 in (15 cm)
Number of Measuring Cells:	9
Operating Frequency:	1 MHz
Profiling Range:	82 ft (25m)
Resolution:	Velocity: 0.04 in/s (1 mm/s)
	Water Level: 0.04 in (1 mm)
Sampling Quality:	82 ft (25m)