



## Water flow meter for longterm data collection of velocity and discharge measurements

- **Usage Type**  
Fixed installation
- **Measurement technology**  
Acoustic
- **Parameters measured**  
Flow velocity
- **Product Highlights**  
Side-Looking-Doppler for continuous discharge measurement in rivers and open channels. Discharge calculation based on velocity - index - method. Integrated vessel filter algorithm, Modbus interface and output of total volume of flow (max. interval 1 day).
- **Measurement range**  
 $\pm 10$  m/s
- **Accuracy**  
 $\pm 1\%$  of measured value  $\pm 0.5$  cm/s

The OTT SLD is a measurement system for continuous measurement of water velocity and level in streams, rivers, and canals. The sensor employs the acoustic Doppler principle to reliably measure flow velocity in a variety of naturally occurring conditions, including during most flood events.

# Technical Data

OTT SLD - Side Looking Doppler Sensor



| Flow velocity measurement |                               |
|---------------------------|-------------------------------|
| Measuring range           | ±10 m/s                       |
| Accuracy                  | 1% of measured value ± 5 mm/s |
| Number of measuring cells | 9                             |

| Cell size / Blanking |                           |
|----------------------|---------------------------|
| 600 kHz              | 2 ... 10 m / 0.5 ... 30 m |
| 1.0 MHz              | 1 ... 4 m / 0.3 ... 15 m  |
| 2.0 MHz              | 0.2 ... 2 m / 0.1 ... 8 m |

| Beam angle / Max. profiling range* |                             |
|------------------------------------|-----------------------------|
| 600 kHz                            | 2.4° / 80 m                 |
| 1.0 MHz                            | 2.4° / 25 m                 |
| 2.0 MHz                            | 2.1° / 10 m                 |
| Minimum coverage                   | 0.15 m (water level option) |

| Electrical data   |   |
|-------------------|---|
| Supply voltage    | 12 ... 16 V DC, typ. 12 V                     |
| Power consumption | 50 ... 500 mW, depending on measurement cycle |

| Water level measurement  |                                    |
|--------------------------|------------------------------------|
| (optional)               |                                    |
| Measuring range          | 0.15 ... 10 m                      |
| Accuracy                 | ±3 mm, depending on stratification |
| Pressure cell (optional) |                                    |
| Measuring principle      | Piezo-resistive                    |
| Measuring range          | 0 ... 10 m                         |
| Accuracy                 | ±0.25 % FS                         |

|            |  |
|------------|--|
| Interfaces | RS-232, SDI-12 or SDI-12 via RS-485, Modbus (optional) |
|------------|--|

| Environmental conditions |                |
|--------------------------|----------------|
| Operating temperature    | -5 ... +35 °C  |
| Storage temperature      | -20 ... +70 °C |

|            |                         |
|------------|-------------------------|
| Length x Ø | 45 ... 52.2 cm x 7.5 cm |
|------------|-------------------------|

|                  |     |
|------------------|-----|
| Housing material | POM |
|------------------|-----|

| Wall bracket (accessory) |   |
|--------------------------|---|
| Components               | Bracket, protective cover, and C rail mount |
| Material                 | Stainless steel                             |
| Details                  | On request                                  |

|                       |   |
|-----------------------|---|
| Discharge calculation | Within the unit or externally on a datalogger, e.g. OTT netDL |
|-----------------------|---|

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We reserve the right to make technical changes and improvements without notice. V-27/07/2024

OTT Hydromet GmbH, Germany



# Technical Data

OTT SLD - Side Looking Doppler Sensor



**OTT SLD EasyUse Installation and service software**      System setup, commissioning, reviewing and optimizing

**OTT Prodis 2 (accessory) Calibration software**      Determining correction factors, (velocity-index method and others), optimizing discharge calculation, managing stations

\*The beam angle is understood to be the measured angle with regard to the main axis. The maximum profiling range depends on the water profile, salinity, suspended matter content etc.

