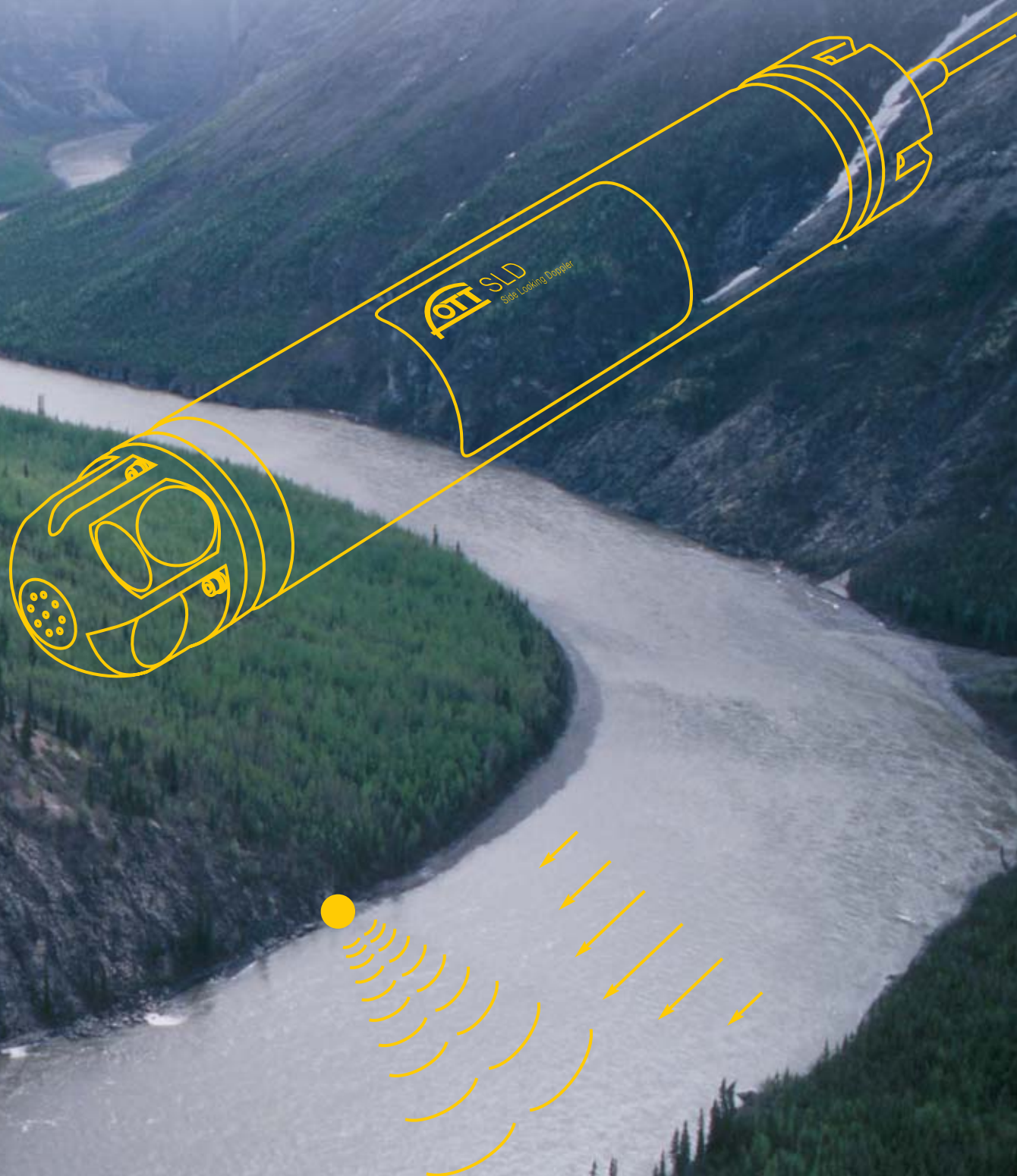


OTT SLD – Side looking Doppler

Acoustic Doppler system (ADS) for continuous measurement of flow velocity in rivers



OTT SLD – Measure discharge simply

The OTT SLD is an acoustic Doppler sensor system for the continuous monitoring of flow velocity and water level (optional) in rivers and open channels. The system guarantees reliable velocity measurements even in a flood situation with high sediment loads. The detection scheme for Ultrasonic level measurement is patented.

The OTT SLD measures velocity through the application of up to 9 adjacent cells with two horizontal beams looking sideways into the flow (Side Looking Doppler). The compact design reduces the need for in river construction and allows for economic installation of the instrumentation.

The optimised low power consumption allows autonomous operation in conjunction with a solar power system.

In combination with the Station Manager LogoSens®, the OTT SLD can be extended to a continuously working discharge measurement system. The sensor is connected via integrated SDI-12 interface to the LogoSens®, which then calculates the discharge from water level and flow velocity and transfers the measured data via integrated telemetry that can use GSM or satellite to a central receiving station.



Acoustic Doppler system the OTT SLD specification at a glance

- ▶ For rivers and open channels
- ▶ Uses acoustic Doppler principle
- ▶ Optimised for rivers with high sediment loads and in flood situations
- ▶ Measures flow velocity and water level (optional)

- ▶ Simple connection to an integrated datalogger OTT LogoSens® for calculation of discharge and online data monitoring
- ▶ Service / diagnostics tool for simple system control and management

Technical Data

Flow velocity

Measurement principle	Doppler frequency based current meter using two ultrasonic horizontal beams
Velocity range	±10 m/s
Accuracy	1 % of measured value ±0.5 cm/s

Frequency	Beam width*	Range
0.6 MHz	2.0°	80 m
1 MHz	2.3°	25 m
2 MHz	1.8°	10 m

Plausibility check

possible via status report

Water level

Measuring range	0.15 ... 10 m
Accuracy	±3 mm (depends on stratification)
Supply voltage	9 ... 16 V DC
Power consumption	50 ... 500 mW (typical) depends on measurement cycle
Interfaces	RS-232 / SDI-12

Dimensions

Length	45 ... 52.2 cm depends on frequency
Diameter	7.5 cm (cylindric)

* Beam width means angle to main axis of Ultrasonic beam. The maximum range depends on various factors e.g. river profile, salinity, suspended materials, etc.

OTT – Your partner for:

- Water level measurement in ground and surface water
- Discharge measurement
- Precipitation measurement
- Water quality measurement
- Data management and communication
- HydroService: consulting, training, installation and maintenance

