

Surface Velocity Radar for Measuring Open Channel Flow

- **Usage Type**
  Fixed installation

- **Product Highlights**
  Identify data influenced by sensor movement (e.g., wind, traffic) using meta data from integrated vibration and tilt sensors

- **Application fields**
  Non-contact surface velocity radar

- **Internal data logger**
  No

- **Measurement range**
  0.08 ... 15 m/s (0.26 ... 49 ft./s)

OTT SVR 100 is a simple, non-contact, compact surface water velocity radar sensor. Designed for measuring flow in open channels and rivers where reliable velocity data is required continuously, during floods or periods of high concentrations of suspended sediments.

The sensor is mounted above the water surface, away from floating debris using a flexible bracket for vertical or horizontal installation. Velocity measurements and sensor status information from the integrated vibration and tilt sensor is available via SDI-12 over RS-485 and Modbus. It is also compatible with OTT Prodis 2 software for system calibration.

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OTT Hydromet GmbH, Germany

Technical Data
OTT SVR 100

Measurement device for	**Contactless velocity measurement**
Measurement Range	**0.08 ... 15 m/s (0.26 ... 49 ft./s)**
Resolution	**0,1 mm/s , (0.0001 ft)**
Accuracy	**± 2% of measured value**
Radar opening angle	12° Azimuth 24° Elevation
Detection distance	1 ... 50 m (3.3 ... 164 ft.)
Distance to water	**0.5 ... 25 m (1.64 ... 82 ft.)**
Radar frequency	**24 GHz (K-band)**
Interfaces	
Serial interfaces	**RS-232, RS-485**
Protocolls	SDI-12, MODBUS
Power supply	**9 ... 27 VDC**
Power/current consumption	
active	typ. < 112 mA at 12 VDC
Maximum Current	< 250 mA
Dimensions	
(LxWxH)	134,5 x 114,5 x 80 mm (5.3 x 4.5 x 3.2 in) (without mounting bracket)
Material	
Housing	ASA & Aluminium
Radom	TFM PTFE
Mounting	1.4301 (V2A)
Rotation range of swivel mount	**Lateral axis: ±90 ° Longitudinal axis: ±15 °**
Cable length	**10 m (32.8 ft)**
Weight	
with mounting bracket	820 g (1.81 lbs.)
without mounting bracket	1530 g (3.37 lbs.)
Temperature, in operation	**-40° ... +85°C (-40° ... +185° F)**
Housing	**IP 68**

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