



TURNING WATER FLOW INTO DATA FLOW

Obscape's Flow Gauge delivers real-time water flow measurements.

It records the surface flow velocity using the doppler shift from a radar signal.

Since the instrument is mounted above the water surface, deploying it in the field is easy and maintenance is low. The Flow Gauge is suitable for application in natural as well as man-made water systems. Whether you are interested in measuring river flow, outfall discharge or channel runoff, the Obscape Flow Gauge will suit your needs.

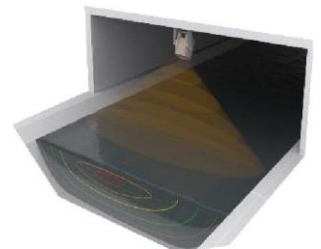


KEY FEATURES

- Accurate surface flow velocity data
- Radar technology
- No underwater components
- Completely wireless
- Real-time data
- Solar powered
- Real-time data up to 4G (upgradable to Satellite)
- Multiple mounting options
- Versatile data portal included

FLOW VELOCITY MEASUREMENTS MADE EASY

Measuring flow velocities is key to many environmental monitoring projects. Adequately measured flow velocities form the basis for discharge calculations, the design of river bed protection and sediment transport studies. Obscape's Flow Gauge is conveniently mounted above the water surface and measures the flow velocity at the water surface using a pulse wave radar, avoiding the need for costly and labour-intensive underwater operations. Since the sensor is not in contact with the water, it does not suffer from bio-fouling, keeping the need for maintenance very low.



Thanks to the non-contact radar technology the Flow Gauge cannot be harmed by sediments, floating debris or driftwood in the water. The result is very low maintenance and an increased reliability, especially in flood situations.

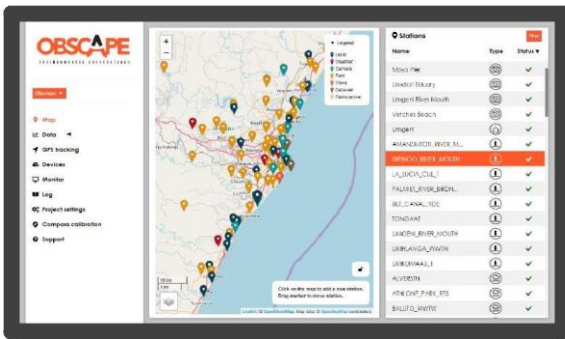
WIDE SHOOTING ANGLE

Elaborated opening angle of 32° allows the radar to see a full spectrum of velocities over the river or channel width. This ensures highly accurate flow measurements under a wide range of flow and site conditions.

Power is supplied through built-in solar panels, while data are transmitted in real-time using a 4G GSM connection. Therefore, the Flow Gauge is easy to install at any desired location within cellular network and solar coverage.

VERSATILE DATA PORTAL

The value of real-time observations strongly depends on the ability to view and analyse them in real-time. Therefore, the Flow Gauge comes with a license for the Obscape Data Portal. The data collected by your Flow Gauge, as well as the data from any other Obscape device you own, are collected into the Data Portal. The Data Portal offers various options for viewing, managing and downloading your surface flow velocity data, including the generation of PDF reports. It is your ultimate tool to unify the office and the field.



TECHNICAL SPECIFICATIONS

DATA SPECIFICATIONS	
PARAMETERS	Surface flow velocity, battery voltage, GSM signal strength, internal temperature
VELOCITY LIMITS	±0,10 to ±15 m/s (depending on flow conditions: bi-directional / flow direction detection)
DETECTION RANGE	0,50 ... 35 m
SENSOR ACCURACY	±1%
SAMPLING INTERVAL	5 - 60 minutes (user selectable)
STORAGE	On-board micro SD card

WEB-PORTAL SPECIFICATIONS	
REAL-TIME GRAPHS	Surface flow velocity and additional (status) parameters
DOWNLOADS	Raw data (CSV format), Graphs (PNG), Reports (PDF)
FORWARDERS	JSON API or HTTP post
STATUS NOTIFICATION EMAILS	Online/offline, battery level, flow velocity threshold exceedance

PHYSICAL CHARACTERISTICS	
HOUSING WIDTH	87 mm
HOUSING DEPTH	87 mm
HOUSING HEIGHT	280 mm
HOUSING WEIGHT	2 kg
FLOW-TRONIC PHOENIX RADAR SENSOR	2,6 kg H 166 x W 157 x L 178mm

ELECTRICAL CHARACTERISTICS	
SOLAR PANEL CAPACITY	3W
BATTERY	1 single 18650 lithium battery
NOMINAL VOLTAGE	3.7 V

TELEMETRY SPECIFICATIONS	
COMMUNICATION MODE	GSM (4G with 2G fallback- region determine prior to order), upgradable Satellite (Iridium).
REAL-TIME DATA INTERVAL	5 minutes - 24 hours (user selectable)
REAL-TIME DATA	Surface flow velocity and additional (status) parameters
GSM DATA LOAD	Approx. 8 kB per message

PURCHASE SPECIFICATIONS	
FLOW GAUGE	Purchase includes free web-portal license for the lifetime of the device, 2 x Std. PTM mounting brackets and 1 x SD card.
GSM COMMUNICATION	Optional GSM Global SIM card with 100 EUR of data credit available for purchase. Alternatively Micro SIM card and sufficient data credit to be arranged by user. Flow Gauge Station can also be run in offline mode (data saved to SD card).

