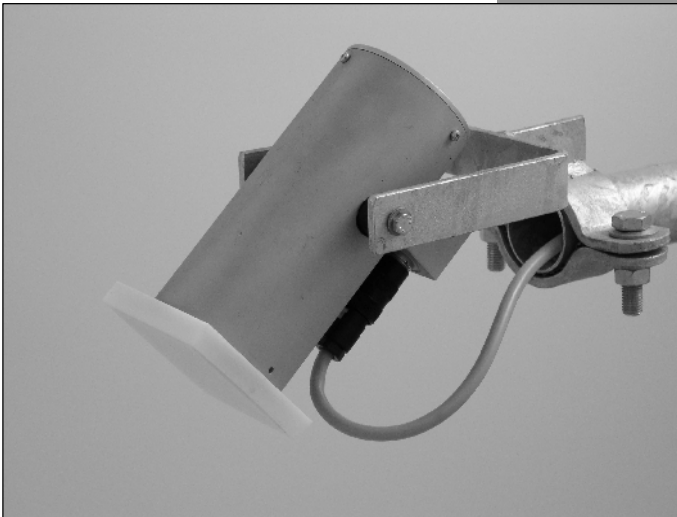


Surface flow velocity

Flow velocity sensor – RG-24

The flow velocity sensor is designed for non-contact measurement of the surface flow velocity of bodies of water. Radar signals reflected by the moving surface of the water are used to determine the flow velocity of the irradiated surface. Compact construction and a non-contact measurement principle enable simple, uncomplicated installation and use.



Application areas include flumes and enclosed drains. The RG-24 is especially suitable for measuring tasks where the use of conventional measuring systems is problematic, e.g. in the event of flooding.

This sensor is impressive thanks to its low energy consumption and high operational dependability. It allows continuous recording of flow velocity and, by approximation, discharge.

The RG-24 set up and parameters are assigned simply and conveniently by using a PC or laptop via standard terminal programs.

Features and characteristics

- Convenient, straightforward long-term monitoring of running waters
- Measurements can be made during extreme situations (flooding)
- Analog and digital interface ensures universal application
- Intelligent processing of measured values in order to compensate and filter environmental conditions
- Watertight, very compact construction for use in extremely harsh conditions

Technical specifications

RG-24

Measurement range – Flow velocity

Measurement range: 0,3 to 8 m/s; resolution: 1 mm/s
Measurement principle / sensor: radar, Doppler shift (frequency 24 GHz, beamwidth 11°)

Functions

Mean surface flow velocity
Actual values, average values

Interface – Analog

Mean surface flow velocity
Signal: 4 to 20 mA (configurable); resolution: 12 bit; max. load 100 Ω

Interface – Digital

Mean surface flow velocity
Interface: RS 232; data transmission rate: 1,2 to 19,2 kBd
Protocol: various ASCII protocols

Power supply

Supply voltage: 10,5 to 15 VDC
Current consumption: max. 130 mA (measuring phase); 80 µA (standby)

Lightning protection

Discharge capacity: built in lightning protection with 0,6 kA discharge capacity

Range of application

Operating temperature: -35 °C to +60 °C

Housing

Dimensions: diameter: 80 mm; length: 185 mm
Material: Anodised natural Aluminium
Total weight: 1,5 kg

Protection rating

IP 66

Installation

Mast-mounting device for 61 mm (2 ") pipe