



SOMFLOW Velocity Sensor

Ultrasonic velocity sensor

The SOMFLOW continuously measures the water or effluent velocity in ducts, pipes and open canals in sewer networks, water treatment plants and industrial facilities. The twin 1-MHz ultrasonic Doppler transceiver determines flow velocities from as low as 0.01 m/s to 5 m/s.

FEATURES

- Flow velocity range 0.01 ... 5 m/s
- Versatile installation options
- Waterproof housing that is resistant to aggressive liquids
- Simple integration into existing data acquisition and control systems
- Easily linked to data loggers
- Multiple data interfaces: RS-485, Modbus RTU, SDI-12

specifications

- **Measurement range** Bi-directional 0.01 to 5 m/s (0.03 to 16.4 ft/s)
- **Accuracy** $\pm 2\%$ of reading if $V \geq 0.5\text{ m/s}$ (1.64 ft/s) $\pm 0.01\text{ m/s}$ ($\pm 0.03\text{ ft/s}$) if $V < 0.5\text{ m/s}$ (1.64 ft/s)
- **Resolution** 1 mm/s (0.003ft/s)
- **Minimum fluid level** 5 mm (0.59 in) to 20mm (0.79in) above base of sensor, provided transducers fully wetted
- **Immersion** up to 1 bar
- **Protection rating** IP68
- **Principle** Doppler sensor using twin 1 MHz transducers
- **Output** RS-485, Modbus RTU, SDI-12 (flow velocity, temperature, quality, diagnostics)
- **Power supply** 9 to 28 VDC
- **Power consumption** standby 14 mA, measurement 25 mA (@12 VDC)
- **Operating temperature** -20 to +60 °C (fluid non-freezing)
- **Storage temperature** -20 to +70 °C
- **Size** L x B x H 122 x 46 x 19 mm
- **Weight** 1.1 kg (incl. 10-m cable)
- **Material** PVDF, polyurethane, 316 Stainless steel