

HANDHELD ULTRASONIC FLOW METER

PCE-TDS 200 SML



- » **Measuring range ± 32 m/s**
- » **USB-C interface for data transfer**
- » **Optional software for analysing the measured values**
- » **Reproducibility ± 0.5 % of measured value**
- » **Heat quantity measurement**
- » **Data memory for 10 million measuring points**
- » **individually adjustable alarm limits**
- » **optionally with ISO or DAKKS calibration certificate**

Ultrasonic flowmeter with 32 GB data memory / measuring range ± 32 m/s /reproducibility ± 0.5 % of measured value / different measuring probes / alarm limit values /2.8 " LC display / for all media / optionally with DAKKS or ISO calibration certificate

The ultrasonic flowmeter has a measuring range of ± 32 m/s. With an accuracy of ± 1.5 % f.s. for a pipe diameter of DN ≥ 50 , ± 3.5 % f.s. for a pipe diameter of DN < 50 and a reproducibility of ± 0.5 % f.s., the ultrasonic flow meter is a particularly precise measuring device. An installation aid is available for installing the sensors of the ultrasonic flow meter. The installation aid graphically displays the signal quality of the ultrasonic flow meter. In addition, it is graphically displayed whether the sensors of the ultrasonic flow meter are positioned at the correct distance from each other. To carry out flow measurements with the ultrasonic flow meter, the flow velocity, the volume flow and the volume are displayed after entering the pipe and medium specifications. The ultrasonic flow meter displays the measured values in a wide range of units. For example: m³, l, gal, igl, mgl, cf, bal, ib and ob.

During a measurement, it is possible to record the measured values via the data logger function of the ultrasonic flow meter. Start and stop conditions and the storage interval can be set from 1 second to 12 hours for the ultrasonic flow meter. A memory point of the ultrasonic flow meter contains all measured values once.

Specification

Speed

Measurement range up to -32 ... +32 m/s

Resolution 0.001 m/s

Accuracy DN >50 mm: ±1.5 % of Rd for velocities >0.3 m/s / DN <50 mm: ±3.5 % of Rd for velocities >0.3 m/s

Ultrasonic sensor

Designation PCE-TDS 200 S SENSOR

Pipe diameter DN 15 ... 100 mm / Ø 20 ... 108 mm

Dimension 45 x 30 x 30 mm

Battery type Ultrasound

Frequency 1 MHz

Operating temperature -30 ... 160 °C

Sensor cable length 5 m

Ultrasonic sensor

Designation PCE-TDS 200 M SENSOR

Pipe diameter DN 50 ... 700 mm / Ø 57 ... 720 mm

Dimension 70 x 40 x 40 mm

Battery type Ultrasound

Frequency 1 MHz

Temperature -30 ... 160 °C

Sensor cable length 5 m

Ultrasonic sensor

Designation PCE-TDS 200 L SENSOR

Pipe diameter DN 300 ... 6000 mm / Ø 300 ... 6000 mm

Dimension 91 x 52 x 44 mm

Battery type Ultrasound

Frequency 1 MHz

Temperature -30 ... 160 °C

Sensor cable length 5 m

General technical data

Measuring functions Flow velocity, Volume flow, Volume

Units metric, imperial

Units additional information Dimensions: mm, in
Flow velocity: m/s, ft/s
Volume flow: m³, l, gal, igl, mgl, cf, bal, ib, ob
Volume: m³, l, gal, igl, mgl, cf, bal, ib, ob
Time specification: seconds, minutes, hours, days

Display size 2,8 Inch

Storage medium Internal memory

Storage capacity 32 GB

Storage interval from 1 s

Storage interval to 12 h

Interface USB-C

Pipe material Steel, Cast iron, Stainless steel, Aluminium, Brass, Copper, PVC, Iron, Nickel, Titanium, Zinc, Acrylic, Polyethylene, Polypropylene, Nylon, User-defined (manual entry of the transversal sound velocity of the pipe material)

Pipe material additional information Inner lining of the pipe:
- No lining
- Epoxy resin
- Rubber
- Mortar
- Polystyrene
- Polyethylene
- Polytetrafluoroethylene
- Polyurethane
- Polypropylene
- Customised (manual entry of the longitudinal sound velocity of the inner lining of the pipe)

Measured medium Water, Seawater, Oil, Crude oil, Methanol, Ethanol, Diesel, Petrol, Petroleum, User-defined (manual entry of the sound velocity of the medium)

Operating time 10 h

Automatic power-off from...to 1 ... 15 min.

Automatic power-off can be deactivated Yes

Measuring method Z, V, N, W

Alarm optical, Acoustic

Alarm modes Undercut, overflow, within, beyond

Reproducibility ±0.5 %

Menu language Turkish, English, Polish, Spanish, German, Chinese, Russian, Japanese, French, Danish, Italian, Dutch, Portuguese

Protection class (device) IP52

Power supply USB 5 VDC, 500 mA

Connector type Device-europlug

Capacity 2500 mAh

Operating conditions -20 ... 65 °C, 10 ... 95 % RH

Storage conditions -20 ... 65 °C, 10 ... 95 % RH

Dimensions (L x W x H) 165 x 85 x 32 mm

Weight 263,5 g