

ULTRASONIC FLOW METER

PCE-TDS 200 S-SW-KIT



- » **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**

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 Portable Ultrasonic Flow Meter is a particularly precise measuring device. An installation aid is available for installing the sensors of the Portable Ultrasonic Flow Meter. The installation aid graphically displays the signal quality of the Portable Ultrasonic Flow Meter. In addition, it is graphically displayed whether the sensors of the Portable Ultrasonic Flow Meter are positioned at the correct distance from each other. To carry out flow measurements with the Portable Ultrasonic Flow Meter, the flow velocity, the volume flow and the volume are displayed after entering the pipe and medium specifications. The Portable 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 Portable Ultrasonic Flow Meter. Start and stop conditions and the storage interval from 1 second to 12 hours can be set for the Portable Ultrasonic Flow Meter. A memory point of the Portable Ultrasonic Flow Meter contains all measured values once. The measured values are stored on the 32 GB built-in memory of the Portable Ultrasonic Flow Meter.

Specification

Speed	
Measuring range up to	-32 ... +32 m/s
Resolution	0.001 m/s
Accuracy	DN ≥50 mm: ±1.5 % of the measured value (of m.v.) for velocities >0.3 m/s / DN <50 mm: ±3.5 % of the measured value (of m.v.) 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
Frequency	1 MHz
Operating 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: m ³ , l, gal, igl, mgl, cf, bal, ib, ob Volume: m ³ , 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 until	12 h
Data interface	USB-C
Pipe material	Steel, Cast iron, Stainless steel, Aluminium, Brass, Copper, PVC, Iron, nickel, titanium, Zinc, Acryl, Polyethylene, Polypropylene, nylon, User-defined (manual input of the transverse sound velocity of the pipe material)
Pipe material additional information	Inner lining of the pipe: - No lining - Customized - Epoxy resin - Rubber - Mortar - Polystyrene - polyethylene - Polytetrafluoroethylene - polyurethane - Polypropylene - User-defined (manual input of the longitudinal sound velocity of the inner lining of the pipe)
Measuring medium	Water, Seawater, Oil, crude oil, Methanol, Ethanol, Diesel, Gasoline, Petroleum, User-defined (manual input of the sound velocity from the medium)
Operating time	10 h
Automatic shutdown adjustable	1 ... 15 min.
Automatic switch-off can be deactivated	Yes
Measuring method	Z, v, N, W
Alarm	optical, Acoustic
Alarm modes	Undercut, Overcut, Inside, Outside
Reproducibility	±0.5 %
Menu language	Turkish, English (US), 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
Battery 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