Teqwave T – Ultrasonic concentration meter

Smart, mobile measuring device – individually for your process

Benefits:

- Easy, fast and efficient – real-time in situ liquid analysis
- Versatile applications – one device for changing tasks
- Highest process safety – reliable metering due to robust, maintenance-free sensor
- Cost-saving – surveillance of product quality without sampling
- Customized usage – innovative application concept, expendable for changing measuring tasks
- Fast, straightforward operation without metrology knowledge – pre-configured measuring points
- Efficient plant monitoring – up to 8 hours of mobile operation without external power supply

Specs at a glance

- **Max. measurement error** Density: ±0.01g/cm³ (internal variable) Temperature: ±0.5K Sound velocity: 2m/s (internal variable)
- **Measuring range** Concentration According to concentration app data sheet, maximum 0 to 100 % Sound velocity 600 to 2000 m/s Temperature maximum 0 to +100 °C (32 to +212 °F) Acoustic Density 0.7 to 1.5 g/cm³
- **Measuring range** Concentration According to concentration app data sheet, maximum 0 to 100 % Sound velocity 600 to 2000 m/s (interal measuring variable) Temperature maximum 0 to +100 °C (32 to +212 °F) Acoustic Density 0.7 to 1.5 g/cm³ (interal measuring variable)
- **Medium temperature range** 0 to 100 °C (32 to 212 °F)
- **Process temperature** 0 to 100 °C (32 to 212 °F)

Field of application: The portable Teqwave T offers the most flexible application possibilities for temporary in situ liquid analysis in your plant or laboratory. With just one device, you can monitor concentration values at various measuring points and thus maximize your product quality at minimum operational expenditure. The mobile transmitter with its pre-configured measuring points allows you to use Teqwave T perfectly matched to your production needs.

Features and specifications

Concentration

Measuring principle

Ultrasonic concentration

Product headline

Smart, mobile measuring device – individually for your process.
Easy, fast and efficient – real-time in situ liquid analysis.
Temporary concentration measurement of liquids at various measuring points in plant and laboratory.

Sensor features

Versatile applications – one device for changing tasks. Highest process safety – reliable metering due to robust, maintenance-free sensor. Cost-saving – surveillance of product quality without sampling.
Insertion length: 180 mm (7 in). Accurate and independent of flow profile.

Transmitter features

Customized usage – innovative application concept, expendable for changing measuring tasks. Fast, straightforward operation without metrology knowledge – pre-configured measuring points. Efficient plant monitoring – up to 8 hours of mobile operation without external power supply.
Robust, portable transmitter with Li-ion battery 2300 mAh. Large color display with 4 operating keys. Integrated data storage for max. 3000 measured values.

Concentration

Nominal diameter range

Insertion length: 180 mm (7")

Measured variables

Concentration, temperature, sound velocity (internal variable), acoustic density (internal variable), dispersion (internal varibale)

Max. measurement error

Density: ±0.01g/cm³ (internal variable)
Temperature: ±0.5K
Sound velocity: 2m/s (internal variable)

Measuring range

Concentration According to concentration app data sheet, maximum 0 to 100 %
Sound velocity 600 to 2000 m/s
Temperature maximum 0 to +100 °C (32 to +212 °F)
Acoustic Density 0.7 to 1.5 g/cm³

Design

Portable

Material

Sensor housing material: Stainless steel 1.4571 (316 Ti)
Transmitter housing material: ABS plastic

Process temperature

0 to 100 °C (32 to 212 °F)

Ex certification

Non-hazardous area
UK; Non-hazardous area

Ingress protection

Sensor: IP67, IP69 optional
Transmitter: IP40, IP67 optional

Display/Operation

3.5" TFT display with 4 operating keys

Concentration

Outputs
USB

Power supply
Lithium-ion battery (2300 mAh capacity)

Product safety
CE, C-Tick, UKCA

Density/Concentration

Measuring principle
Ultrasonic concentration

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Density/Concentration

Nominal diameter range
Insertion length: 180 mm (7")

Wetted materials
Stainless steel1.4571 (316 Ti)

Measured variables
Concentration, sound velocity (internal variable), temperature, acoustic density (internal variable), dispersion (internal variable)

Max. measurement error
Acoustic density: ±0.01g/cm³ (interal measuring variable)
Temperature: ±0.5K
Sound velocity: +-2m/s (interal measuring variable)

Measuring range
Concentration According to concentration app data sheet, maximum 0 to 100 %
Sound velocity 600 to 2000 m/s (interal measuring variable)
Temperature maximum 0 to +100 °C (32 to +212 °F)
Acoustic Density 0.7 to 1.5 g/cm³ (interal measuring variable)

Medium temperature range
0 to 100 °C (32 to 212 °F)

Ambient temperature range
0...40 °C (32...122 °F)

Sensor housing material
Stainless steel 1.4571 (316 Ti)

Transmitter housing material
ABS plastic and glas

Degree of protection
Sensor: IP68
Transmitter: IP65

Density/Concentration

Display/Operation
3.5" TFT display with operating keys

Outputs
USB

Power supply
Lithium-ion battery (2300 mAh capacity)

Hazardous area approvals
Non-hazardous area
UK; Non-hazardous area

Product safety
CE, C-Tick, UKCA