Teqwave I – Ultrasonic concentration meter

Smart, flexible insertion measuring device – individually for your process

More information and current pricing:

www.endress.com/D9IB

Benefits:

- Easy and efficient – real-time in situ liquid analysis
- Full transparency – constant monitoring of product quality without sampling
- Highest process safety – reliable metering due to robust, maintenance-free sensor
- Cost-saving – fewer measuring points due to multivariable measurement
- Customized usage – innovative application concept, expendable for changing measuring tasks
- Simplified process control – user-friendly operation and clear status visualization
- Local data backup – integrated data storage for measured values up to 7,5 years

Specs at a glance

- **Max. measurement error** Density: ±0.01g/cm³ Temperature: ±0.5K Sound velocity: 2m/s
- **Measuring range** Concentration According to concentration app data sheet, maximum 0 to 100 % Sound velocity 600 to 2000 m/s Temperature concentration app data sheet, maximum 0 to +100 ˚C (32 to +212 ˚F) Density 0.7 to 1.5 g/cm³
- **Medium temperature range** 0 to 100 ˚C (32 to 212 ˚F)
- **Max. process pressure** max. 16 bar at 20 ˚C (232 psi at 68 ˚F)

Field of application: The insertion measuring device Teqwave I was developed for accurate real-time liquid analysis in vessels and larger pipes. Dedicated to in situ concentration measurement, Teqwave monitors various measuring parameters at once, and thus reduces

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operational expenditure. Match your Teqwave transmitter perfectly to your production needs: You can flexibly define and extend your application range.

Features and specifications

Density/Concentration

Measuring principle

Ultrasonic concentration

Product headline

Smart, flexible insertion measuring device – individually for your process. Easy and efficient – real-time in situ liquid analysis.
Continuous concentration measurement of liquids in vessels or large pipes.

Sensor features

Full transparency – constant monitoring of product quality without sampling. Highest process safety – reliable metering due to robust, maintenance-free sensor. Cost-saving – fewer measuring points due to multivariable measurement.
Insertion length: 180 mm (7 in) or 500 mm (20 in). Accurate and independent of flow profile.

Transmitter features

Customized usage – innovative application concept, expendable for changing measuring tasks. Simplified process control – user-friendly operation and clear status visualization. Local data backup – integrated data storage for measured values up to 7,5 years.
Industry-compliant, easy installation via DIN rail. 3.5" TFT color touch screen or LED indication. 4-20 mA, Modbus TCP.

Nominal diameter range

Insertion length: 180 mm (7") or 500 mm (20")

Density/Concentration

Measured variables

Concentration
Density
Sound velocity
Temperature

Max. measurement error

Density: ±0.01g/cm³
Temperature: ±0.5K
Sound velocity: 2m/s

Measuring range

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

Max. process pressure

max. 16 bar at 20 ℃ (232 psi at 68 ℉)

Medium temperature range

0 to 100 ℃ (32 to 212 ℉)

Ambient temperature range

0 to +50 ℃ (32 to 122 ℉)

Sensor housing material

Stainless steel V4A 1.4571

Degree of protection

Sensor: IP68 (with cable plugged in), IP66 (without cable connector)
Transmitter: IP40

Display/Operation

LED status indication
TFT color touch display

Density/Concentration

Outputs

4-20mA / Modbus TCP

Power supply

DC 24 V (18 to 35 V)

Hazardous area approvals

Non-hazardous area

UK; Non-hazardous area

Product safety

CE, C-Tick

More information **www.endress.com/D9IB**