

Teqwave H – Ultrasonic concentration meter

Inline device with best-in-class hygienic design – plug and play for food and beverage processes



Benefits:

- High accuracy and repeatability – concentration calculation with latest algorithms
- Fulfilment of hygienic requirements – easily cleanable full-bore sensor
- Full transparency – constant monitoring of product quality without sampling
- Highest process safety – reliable metering due to robust, maintenance-free sensor
- 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

More information and current pricing:

www.in.endress.com/D9HB

Specs at a glance

- **Max. measurement error** Density: $\pm 0.01 \text{g/cm}^3$ Temperature: $\pm 0.5 \text{K}$ 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 $+100 \text{ }^\circ\text{C}$ (32 to $+212 \text{ }^\circ\text{F}$) Density 0.7 to 1.5g/cm^3
- **Medium temperature range** 0 to $120 \text{ }^\circ\text{C}$ (32 to $248 \text{ }^\circ\text{F}$)
- **Max. process pressure** max. 16 bar at $20 \text{ }^\circ\text{C}$ (232 psi at $68 \text{ }^\circ\text{F}$)

Field of application: Teqwave H is ideal for real-time liquid analysis in hygienic applications like spirits and soft drink production. End customers and equipment manufacturers value its highly accurate in situ

concentration measurement and hygienic design. Teqwave reduces the operational expenditure by monitoring various measuring parameters at once. Match your Teqwave transmitter perfectly to your production needs by flexible definition and extension of your application range.

Features and specifications

Density/Concentration

Measuring principle

Ultrasonic concentration

Product headline

Inline device with best-in-class hygienic design – plug and play for food and beverage processes.

High accuracy and repeatability – concentration calculation with latest algorithms.

Continuous quality monitoring of beverages and in cleaning processes.

Sensor features

Fulfilment of hygienic requirements – easily cleanable full-bore sensor.

Full transparency – constant monitoring of product quality without sampling. Highest process safety – reliable metering due to robust, maintenance-free sensor.

Nominal diameter: DN 25 (1"). Accurate and independent of flow profile.

Sensor housing made of stainless steel (3-A, EHEDG).

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

DN 8 (3/8") to DN 25 (1")

Measured variables

Concentration, density, sound velocity, temperature

Density/Concentration**Max. measurement error**Density: $\pm 0.01 \text{g/cm}^3$ Temperature: $\pm 0.5 \text{K}$ 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 $+100 \text{ }^\circ\text{C}$ (32 to $+212 \text{ }^\circ\text{F}$)Density 0.7 to 1.5g/cm^3

Max. process pressuremax. 16 bar at $20 \text{ }^\circ\text{C}$ (232 psi at $68 \text{ }^\circ\text{F}$)

Medium temperature range0 to $120 \text{ }^\circ\text{C}$ (32 to $248 \text{ }^\circ\text{F}$)

Ambient temperature range0 to $50 \text{ }^\circ\text{C}$ (32 to $122 \text{ }^\circ\text{F}$)

Sensor housing materialStainless 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

Outputs4-20mA / Modbus TCP

InputsDC 24 V (18 to 35 V)

Density/Concentration

Power supply

Power supply

Hazardous area approvals

Non-hazardous area

UK; Non-hazardous area

Product safety

CE, C-tick

More information www.in.endress.com/D9HB