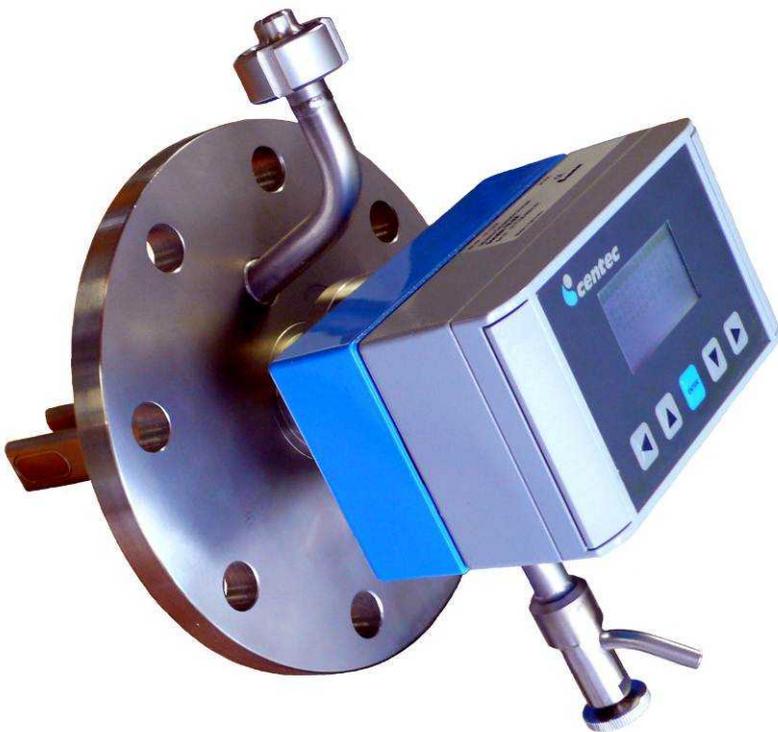


SONATEC HW

Ultrasonic Concentration Sensor/Transmitter for Monitoring Liquids in Vessels



- Highly precise measurement of sound velocity and temperature to determine concentration in w/w%, v/v%, °Brix, %Extract and other sound velocity calculable scales
- In-tank sensor to measure the concentration of liquids in tanks and vessels. Monitors reactions and fermentation.
- Optional sample points and integrated cleaning nozzle specifically designed for direct installation into wort kettles
- Available as a Sensor and Transmitter with local interface
- Analog and digital In-/Outputs, optional Profibus



SONATEC HW

Technical Data:

Measuring range:	400 – 3000 m/s
Accuracy:	+/-0,05 m/s
Reproducibility:	+/-0,01 m/s
Response time:	≤ 1 sec
Temperature comp.:	PT1000
Temperature range, Medium:	-25°C - +125 °C
Pressure range:	Max. 16 bar
Material in contact with product:	- Stainless steel 1.4404 (AISI 316L) - Others on request
Process Connection:	- DN 100 DIN 2633 - Others on request
Communication, Sensor (without local display/keypad):	Profibus DP
Inputs, Transmitter:	- 1x digital (24 VDC)
Outputs, Transmitter:	- 3x digital (24 VDC) - 2x analog (4-20 mA)
Optional, Transmitter:	Profibus DP
Enclosure rating:	IP 65
Power supply:	24 VDC

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The Sonatec HW Ultrasonic Concentration Sensor and Transmitter is a highly precise means of determining the sound velocity of the wort. Like density measurements, sound velocity is a material and concentration dependent quantity which can be used for determining the concentration of a liquid. The propagation time of a piezo-ceramic generated sound pulse is measured between the prongs of a fork-shaped measuring head installed directly in the wortkettle. As this propagation time changes, the sound velocity and resulting concentration changes are measured. The temperature dependence of the sound velocity measurement is compensated through the electronic measurement of parallel PT1000 temperature elements. From these measurement signals, calculated concentrations are obtained and displayed in °Plato, %Extract or other sound velocity calculable quantities of the measured medium. Due to the simple mechanical design without any movable parts, the sensor is very reliable and virtually maintenance free. The integrated cleaning nozzle cleans the measuring head e.g. after each brew with hot water or steam.

