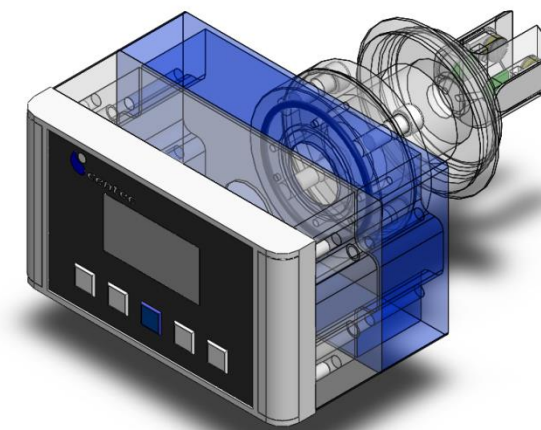


SONATEC

Determination of Concentration by Sound Velocity

Centec Process Sensors



Automated process skids and high precision sensors from a single source. Centec.

SONATEC INNOVATION

For the fast and accurate determination of the concentration of a liquid in a tank, a very specific ATEX compliant version of SONATEC is available. Installed on the tank top, the measuring head of this customized device can be immersed into the tank to a depth of 2 metres. The extremely rigid design has a proven track-record in various industries and applications. It can be adapted for vessels that are equipped with agitators and mixers.



Innovation. Dedication. Centec.

Germany

Centec GmbH
Wilhelm-Röntgen-Strasse 10
63477 Maintal
Tel.: +49 6181 18 78 0
Fax: +49 6181 18 78 50
info@centec.de

Czech Republic

Centec automatika s.r.o.
Pekařská 8/601
155 00 Praha 5
Tel.: +420 257 084 111
Fax: +420 235 518 701
prodej@centec.cz

USA

Centec LLC
P. O. Box 820
Germantown, WI 53022-0820
Tel.: +1 262 251 8209
Fax: +1 262 251 8376
info@centec-usa.com

UK

Centec UK
Stalworths, The Street
Great Tey, Colchester, Essex, CO6 1JS
Tel.: +44 1206 21 19 21
Fax: +44 1206 21 19 16
info@centec-uk.com

Serbia

Centec Serbia
Bogdana Žerajića 34/III
11000 Beograd
Tel.: + 381 11 358 11 24
Fax: + 381 11 358 11 24
info@centec.rs

India

Centec RRR Systems & Sensors Pvt Ltd
RRR House, Plot 80, Sector 23
Turbhe Naka, Navi Mumbai - 400 705
Tel.: +91 22 2783 3655 & 2783 1348
Fax: +91 22 2783 4814
mail@centecrrr.com

Brazil

Centec América Latina Ltda
Rua Mexico 148 conj. 1004 Centro
20031 142 Rio de Janeiro
Tel.: +55 21 2223 2066
centeclatina@terra.com.br

SONATEC

The Principle

SONATEC continuously measures the velocity of sound through liquids. Designed for applications that require maximum sensitivity and high accuracy, this device is used in various industries all around the world. Breweries and beverage manufacturers determine extract or dissolved sugar contents in-line with SONATEC. Equipped with an integrated cleaning nozzle, SONATEC HW can be installed directly into brewery wort kettles and evaporators. In numerous pharmaceutical and chemical applications SONATEC is used to control the concentration of acids, caustics and other solutions – but also for monitoring the quality of raw materials and final products. The instrument measures the speed of a sound pulse between a transmitter and a receiver. The sound pulse is created by piezo-elements and moves perpendicular to the product flow. As a specific property of each liquid, the correlation between concentration and sound velocity can be described by a mathematical polynomial. With decades of experience and own laboratory facilities, we have a particular knowledge about polynomials for a huge number of products. Any temperature drifts of the measured signal are automatically compensated for by an internal Pt1000 sensor. SONATEC displays various units, e.g. vol.%, mass %, °Brix and °Plato.



SONATEC
Transmitter Version



SONATEC HW
Transmitter Version
for the Wort Kettle

- Available as Transmitter Version with Local Display and as a Sensor
- Highly Precise and Fast Determination of the Concentration
- Based on Sound Velocity Measurement
- Applicable for a Huge Number of Liquids in Various Industries
- Short Response Time and Excellent Long-Term Stability
- Hygienic Execution, Full CIP Capability and Maintenance Free
- Outstanding Price-Performance-Ratio

Technical Data	SONATEC	SONATEC HW
Measuring Range	400 - 3.000 m/s	400 - 3.000 m/s
Accuracy	± 0,05 m/s	± 0,05 m/s
Repeatability	± 0,01 m/s	± 0,01 m/s
Response Time	≤ 1 s	≤ 1 s
Pressure of Operation	max. 16 bar	max. 16 bar
Temperature of Operation	- 25 - + 125 °C	- 25 - + 125 °C
Temperature Compensation	Pt1000	Pt1000
Material	1.4404/AISI 316L; 1.4571/AISI 316Ti; Hastelloy C276; Monel 400; Incoloy 825; Tantal; others on request	1.4404/AISI 316L; others on request
Connections	Varivent© DN65; Diary DIN11851 DN65; others on request	DIN2633 DN100; others on request
Input Transmitter Version	6 x digital (24 VDC)	1 x digital (24 VDC)
Output Transmitter Version	3 x digital (24 VDC) & 2 x analog (4 - 20 mA)	3 x digital (24 VDC) & 2 x analog (4 - 20 mA)
Profibus DP		
Transmitter Version Sensor (w/o local display)	option standard	option standard
Enclosure Rating	IP65	IP65
Explosion Protection Ex II 2G EEx d IIC T6	option	-
Power Supply	24 VDC	24 VDC