

Measurement of Density and Concentration in the Lab

RHOTECL



The Principle

RHOTECL L is a highly precise sensor for determination of densities and concentrations (e. g. of extract, alcohol, sugar, acids, caustics and solvents) according to the oscillating U-tube principle. The samples are manually injected into the sensor. The instrument is designed for laboratory applications requiring maximum sensitivity and highest accuracy. It is easy to operate and maintenance-free. For density measurement the liquid flows through a thin U-shaped tube inside the sensor. Using electromagnets, the tube is excited to oscillate at the resonant frequency. At the same time, an integrated reference oscillator measures the oscillation characteristics. Even the smallest changes in fluid density have an impact on the detected signal and are identified with highest precision. As a specific property of each liquid, the correlation between concentration and density can be described by a mathematical polynomial. With decades of experience and our own laboratory facilities, Centec know the polynomials for a large number of products. Any temperature drifts of the measured signal are automatically compensated for.

Technical Data *Technische Daten*

Measuring Range	0 - 3 g/cm ³
Accuracy	± 0,0001 g/cm ³
Repeatability	± 0,00005 g/cm ³
Sample Volume	≈ 2 ml
Measurement Time	30 - 60 s
Temperature of Operation	+5 - + 85 °C
Temperature Sensor	Pt1000
Material	glass, PTFE, aluminium
Display	10" touchscreen
Interface	USB; WLAN; Ethernet
Weight	22 kg
Power Supply	230 VAC

Highlights

- **Most accurate technology to determine density and concentration**
- **Software compatible with MS Windows® and MS Office®**
- **Various interfaces; user-friendly 10" touchscreen available**

The Centec Group

Centec offer fully automated, skid-mounted process units and high precision measurement technology from a single source. Our systems and sensors are engineered to perfectly meet the most demanding requirements of the brewery, beverage, food and pharmaceutical industries. With a team of experienced engineers, we aim to create quantifiable added value for our customers. We are your partner from planning and design through to commissioning of your plant.



ProDetec Pty.Ltd.

P. +61 (02) 9620 8700

F. +61 (02) 9620 8755

E. info@prodetec.com.au

A. 17/38 Powers Rd,
Seven Hills NSW 2147

www.prodetec.com.au

Centec

Gesellschaft für Labor- & Messtechnik mbH
Wilhelm-Röntgen-Strasse 10
63477 Maintal. Germany

☎ +49 6181 1878-0

🖨 +49 6181 1878-50

✉ info@centec.de

centec.de

centec.cz

centec-uk.com

centec-usa.com

centecrrr.com