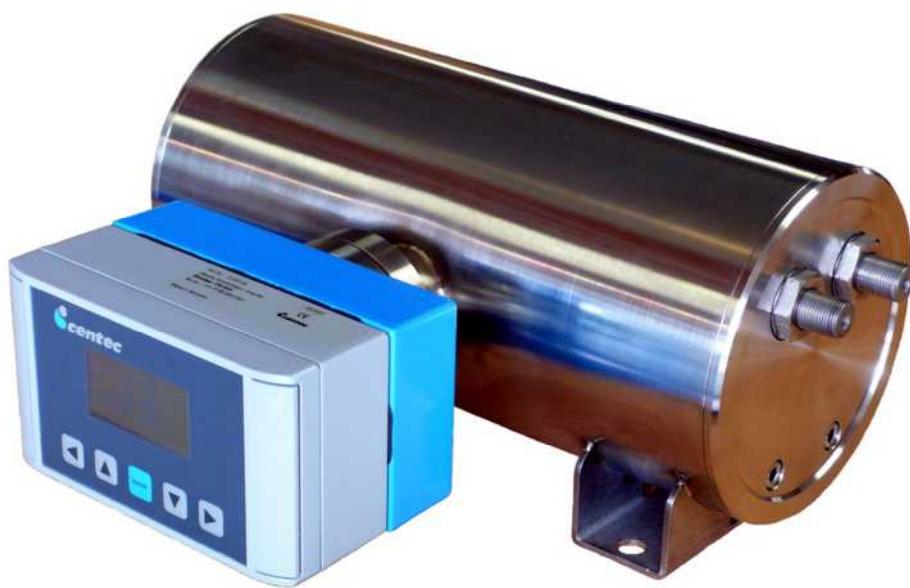


## Product Density Sensor/Transmitter



- Highly precise measurement of Density and Temperature  
Determination of concentration in w/w%, v/v%, °Brix,  
%Extract and other density calculable scales
- Available as Sensor and Transmitter with local MMI interface
- Analog and digital In-/Outputs, optional Profibus
- Long run stable, low response time, officially calibratable
- Maintenance free, hygienic Construction, CIP-capable

# RHOTEC



## Technical Data:

<b>Measuring range:</b>	0 – 3 g/cm <sup>3</sup>
<b>Accuracy:</b>	+/-0,0001 g/cm <sup>3</sup>
<b>Reproducibility:</b>	+/-0,00001 g/cm <sup>3</sup>
<b>Response time:</b>	≤ 1 sec
<b>Temperature comp.:</b>	PT1000
<b>Temperature range, Medium:</b>	-25°C - +125 °C
<b>Pressure range:</b>	Max. 50 bar
<b>Material in contact with product:</b>	Hastelloy C276, Monel 400, Incoloy 825, Stainless Steel 1.4571, Tantalum; others on request
<b>Process connection:</b>	- Thread 3/8" - With Centec Online-Fitting compatible to Varivent®-Inline housing DN40-150 - Others on request
<b>Communication, Sensor (without local display/keypad):</b>	Profibus DP
<b>Inputs, Transmitter:</b>	- 6x digital (24 VDC)
<b>Outputs, Transmitter:</b>	- 3x digital (24 VDC) - 2x analog (4-20 mA)
<b>Optional, Transmitter:</b>	Profibus DP
<b>Enclosure rating:</b>	IP 65
<b>Power supply:</b>	24 VDC
<b>Explosion protection (optional):</b>	Ex II 2G Eex d IIC T6

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The Rhotec density sensor and transmitter is a highly precise means of determining the density of liquids, even under extreme process conditions. The density measurement is achieved through the use of an electro-magnetic oscillating "U"-shaped tube. As the process medium flows through the "U"-shaped tube, the oscillation frequency is measured. The oscillation frequency is affected by any changes in density and measured accordingly. The temperature dependence of density measurements is compensated through the electronic measurement of parallel PT1000 temperature elements. From these measurement signals, calculated concentrations are obtained and displayed in w/w%, v/v%, °Brix, %Extract, %Alcohol or other density calculable quantities of the measured medium. The use of this technology with specific measurement software has a proven track record for liquids with dissolved and un-dissolved components, both organic and inorganic.