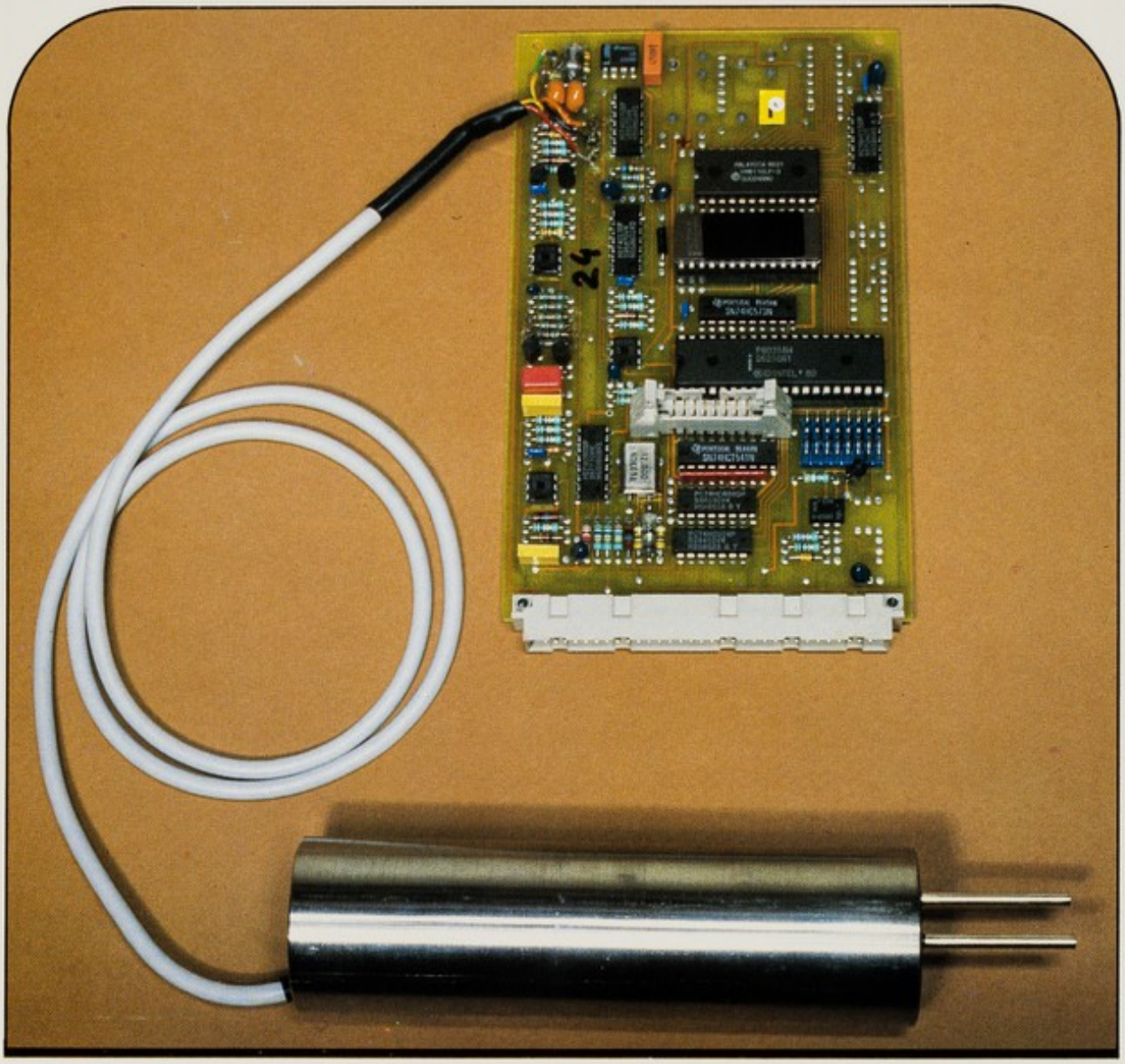
DPR-T : density transmitter for OEM-applications : a measuring system to determine the density of liquids at continuous flow / Anton Paar K.G.

DPR-T

Density Transmitter for OEM-Applications

. . . a measuring system to determine the density
of liquids at continuous flow.



PAAR

Density Transmitter for OEM Applications

DPR-T

The density transmitter DPR-T consists of:

- The density sensor with a three-meter connection cable
- The density processor

The density determination of a liquid sample is based on the measurement of the resonant frequency of a mechanical oscillator. The mechanical oscillator is a double U-shaped tube made of stainless steel flown through by the sample. The density sensor is built into a stainless steel jacket, the front ends being sealed with silicone resin.

The density processor determines the temperature, calculates the density and provides the values by an optically isolated serial data output.

Calibration

The DPR-T density transmitter is calibrated as a unit.

Range of calibration: Density: up to ±0.2 g/cm³ around reference density
Temperature: up to ±15 K around reference temperature

Please specify the density and temperature range for the works calibration when ordering a DPR-T density transmitter.

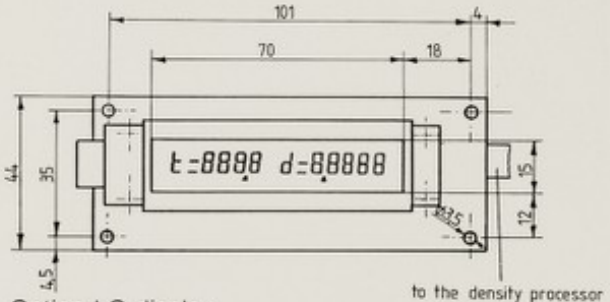
A recalibration may be performed by the user in the range of ±0.0127 g/cm³ in steps of ±0.0001 g/cm³.

Specifications

Density range:	0.5 — 2 g/cm³
Temperature range:	+5 — +95 °C
Pressure range:	0 — 10 bars
Pressure coefficient:	-0.0005 g/cm³/bar (typically)
Flow range:	0.01 — 0.1 m³/h
Accuracy:	±0.001 g/cm³ ±1 °C
Resolution:	0.0001 g/cm³ 0.1 °C
Oscillator tube:	
Outside diameter:	3.2 mm (1/8")
Internal diameter:	2.6 mm
Material:	Stainless steel DIN 1.4571/SS 316 ti
Density sensor:	
Dimensions:	160 x 100 mm board
Plug connector:	DIN 41612/VG C 32 A
Ambient temperature:	+10 — +50 °C
Humidity:	10 — 90% (non-condensing)
Power supply:	5 V dc ±3%, 500 mA max.
Serial data output:	optically isolated, 1200 Bd, 8 bit ASCII (bit 8 = 0), no parity, 1 stop bit

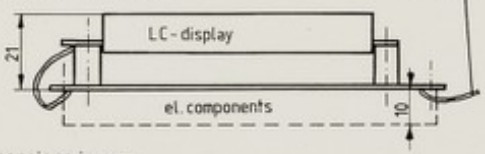
Data word: T = — XXX.X ‹C› D = X.XXXX ‹g/ccm› CrLf

Density Sensor



Option LC-display

to the density processor (max. 50 cm)



Dimensions in mm.

Applications

- Soldering machines
- Wet chemical analyzers
- Fuel metering systems
- Inkjet printer

Options

- LC-display
- Linear temperature compensation of the sample
- Relays (24 V dc/ac/1 A)

Specifications subject to change without notice.

AP-920319

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