



TDR1000 - Mobile Density Monitor

The TDR1000 is a mobile, high accuracy, density monitor that allows on-line density and temperature monitoring of liquids and slurries across the site.

The TDR1000 can be used:

- to verify readings from other density instruments
- as a temporary density monitor during operational trials
- for routine density measurements (replacing manual sampling & testing)

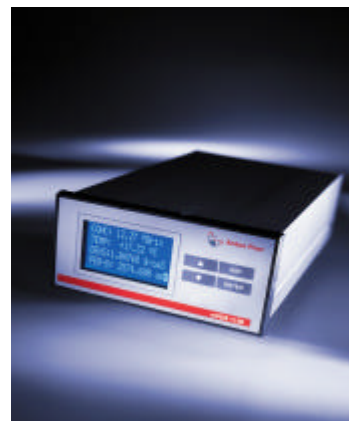
The heart of the TDR1000 consists of an Anton Paar DPRn4122 high accuracy on-line process density monitor. The DPRn4122 uses the oscillating U-tube as the principle method of measurement, providing the highest density accuracy available. The characteristic frequency of the vibration is measured and the mPDS1100 evaluation unit instantly translates the signal into a density or concentration value. Temperature is also measured using a Pt1000 temperature sensor.

The TDR1000 eliminates the need for manual sampling & laboratory testing, thus saving time and reducing the operator's exposure to hazardous samples. It reduces the cost compliance with OH&S policies and meeting legal requirements.

The TDR1000 connects to the process line via a set of flexible hoses. After connecting the TDR1000 to the process line, the liquid or slurry flows continuously through the U-tube sensor and density and temperature are displayed instantaneously. The measurement is independent of the flow rate and the TDR1000 requires only a minimal flow to operate.



TDR1000



mPDS1100 density / temperature read-out

The DPRn4122 is installed in an IP65 rated stainless steel enclosure and fitted with pipe connections that allow a quick connection to any process pipeline via flexible sample hoses. The enclosure is mounted on a trolley with pneumatic tyres that can be easily moved across the site. The read-out is located on the top of the enclosure for convenience and is protected by a hinged stainless steel cover.

The TDR1000 provides 4-20 mA outputs for connection to a data logger or data recorder (not included). If required, alarm setpoints can be defined for up to 31 different liquids or slurries.

The TDR1000 does not require any external power to operate. It has on-board rechargeable batteries to provide for approximately 12 hrs continuous operation and is supplied with a fast charger.

The DPRn4122 density monitor is also available as a stand-alone instrument, which can be used as an on-line density monitor, permanently installed in the plant to avoid the problems associated with the safety and management of other types of density monitors.

SPECIFICATIONS

- Density Range 0 - 3 g/cm³.
- Accuracy 0.0001 g/cm³
- Repeatability 0.00001 g/cm³
- Pressure max. 3000 kPa
- Sample temperature max. 125 °C
- Recommended flow rate 350 to 6000 l/h
- Wetted parts SS316
- Data logging outputs density, temperature, 4-20 mA
- Enclosure SS316, IP65
- Process connections ¾" BSP
- Battery capacity approx. 12 hours running time
- Battery charger 110 / 240VAC, 50 Hz.
- Dimensions (including trolley) 600 x 1300 x 650 mm. (W x H x D)

Note: flexible connection hoses are not included.

Specifications subject to change without notice.

B-R Controls supplies a comprehensive range of on-line analysers for concentration monitoring in the mineral processing, mining, oil/gas and waste water industries. For details see our website: www.brcontrols.com.au/process/ .

Doc.: TDR1000s1, Rev.1.