



# DD-1000 Digital Density Gauge

Nucleonic Density  
Measurement of  
Slurries, Sewerage  
Sludge, and Liquids.



The **DD-1000** is a new advanced nucleonic Density Gauge from **Real Time Instruments**. The unique iPad® Interface allows the operator to connect wirelessly to one or many Gauges for full control over all functions and parameters.

### Safe.

Operator can stand in a safe and convenient location instead of having to move between gauge sample point and the integrator.

### Simple.

Intuitive and easy to use iPad® interface with built in help manual.

### Powerful.

Setup, calibration, trending of reference and SG, in-depth detector diagnostics.

### Versatile.

One iPad® can connect to multiple gauges. Records from all gauges are stored on the iPad®, just select the gauge of interest from the menu.



- High sensitivity allows use of low activity sources
- Built in protection from high count-rates (empty pipe)
- Rugged design, with built in backlit LCD display
- Repeatability 0.0001 SG
- Automatic Gain Stabilisation

- RTI 500mCi (Cs-137) source holder
- Fully drop tested and fire proof
- All Stainless Steel Construction





## Specifications.

### Source

Source Holder	RTI 500mCi / 18.5GBq (Cs-137) source holder <ul style="list-style-type: none"> <li>All stainless steel construction (no lead fill)</li> <li>Drop tested and fire proof</li> <li>Rotary shutter</li> <li>Meets or exceeds internationally accepted safety standards</li> </ul> Also compatible with most third party source holders (contact RTI for further information)
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Radioisotope	Double encapsulated Cs-137 or Co-60
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### Detector

Detector Element	Sodium Iodide scintillation detector with integral photomultiplier
Electronics	All electronics fully integrated into a single module
Housing	IP67 316 stainless steel, with stainless steel mounting brackets with multiple mounting arrangements
Power	88-264 VAC single phase, or 24VDC
Data Integrity	Radioactive Decay Clock No data loss with power off
Communications & Control	Output: 4-20mA for SG (with separate 24V and 240V connections) Setup/Control/Calibration/Diagnostics: iPad® via wireless communications* (iPad® and Density Gauge App included) ModBus® also available

Display	Integral backlit LCD display on Detector Housing: Displays SG and counts displayed for reference and basic diagnostics
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### Performance and Environmental

Temperature Drift	± 0.00003 SG units / °C
Operating temperature	0 – 80 °C
Vibration	2.5 g at 100 Hz
Humidity	5% – 95% RH non condensing

### \*iPad® Density Gauge App Features

- Control multiple gauges using 1 iPad®; records from all gauges are stored on the iPad®, just select the Gauge of interest from the menu.
- Detailed Help Manual within the App
- Powerful Setup, Calibration and Diagnostic functions
- Graphical display of SG ; view trend in real time (data logging interval adjustable)
- Histogram Display of reference trend for last 10 water calibrations, showing % variance
- Ability to enter an offset "on-the-fly" if needed to bring the Gauge reading into line with "known" SG
- Full detector spectrum plot for in-depth diagnosis as well as detector resolution and interrogation.
- All data downloadable via iTunes® for backup purposes *and more...*

Real Time Instruments  
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