



NON-INVASIVE MEASUREMENT. STRIKING ACCURACY.

PRODUCT DATA SHEET Ultimo Density Meter V4.2

Ultimo Measurement LLC
www.ultimompd.com

McCormick, SC 29835 USA

Tel: +1-864-391-9070

Fax: +1-401-633-6087

info@ultimompd.com

Non-invasive, in-line process material measurement

The Ultimo Density Meter is a non-invasive device that continuously measures the density of any slurry, loose solid, or liquid.

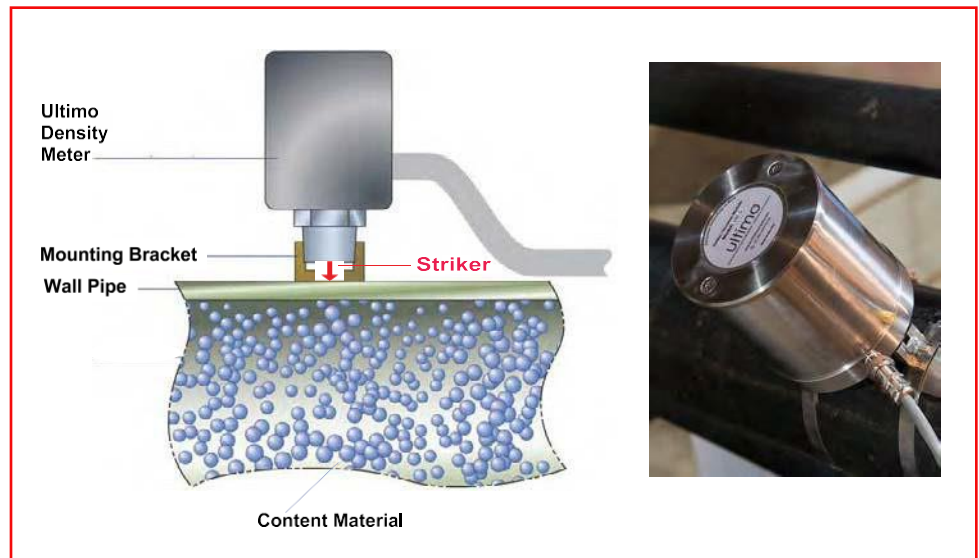
Non-invasive

**Inline density
measurement**

No radiation

**Ideal alternative to
nuclear**

Made in the USA



Measurement Principle

Ultimo's proprietary vibration-based Percussion technology generates, acquires, and analyzes oscillations at the pipe wall to measure the density of the material inside. Self-learning software discriminates between valuable and ambient vibrations. Ultimo's proprietary state-of-the-art algorithms provide exceptionally precise measurements for processes involving abrasive materials of varying compositions.

Finally, an Alternative to Nuclear

Ultimo is the only producer of non-invasive percussion-based technology worldwide. With years of development and field testing on five continents, percussion technology is the method of choice for abrasive, caustic, and high-solid-content materials.



NON-INVASIVE MEASUREMENT. STRIKING ACCURACY.

PRODUCT DATA SHEET Ultimo Density Meter V4.2

Ultimo Measurement LLC
www.ultimompd.com

McCormick, SC 29835 USA

Tel: +1-864-391-9070

Fax: +1-401-633-6087

info@ultimompd.com

No radiation

**Real-time process
measurement**

Install on any pipe

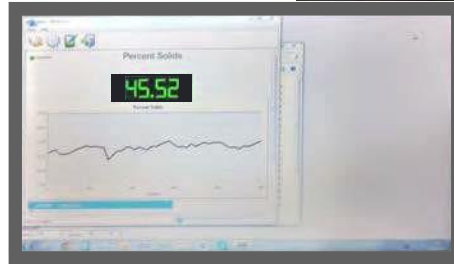
Non-invasive

Made in the USA

Ultimo Density
Meter



Ultimo Density Meter
Monitor Display



Advantages of Non-invasive measurement with Ultimo's Patented Percussion technology

- No clogging, leaks, or pressure loss
- Fits all standard-sized pipes – metal or plastic Installs in minutes without process interruption Interactive installation wizard
- Accurate and repeatable across all flow rates and density ranges
- Unaffected by system vibrations
- % solids measurement and mass flow calculation
- No routine maintenance

Benefits

- Eliminates the administrative burden of nuclear
- Safer for the Operator and the Plant
- Expand valuable points of measurement
- 24/7 reliability
- Read density, trend or deviation
- Lowers cost without compromise
- Made in the USA
- Mass Flow calculation
- Auto Tuning (available by 2027)



NON-INVASIVE MEASUREMENT. STRIKING ACCURACY.

PRODUCT DATA SHEET Ultimo Density Meter V4.2

Ultimo Measurement LLC
www.ultimompd.com

McCormick, SC 29835 USA

Tel: +1-864-391-9070

Fax: +1-401-633-6087

info@ultimompd.com

Main Technical Specifications

Measurement Range:	0.001 - 1.0 s. g.; 1.0 - 4.0 s. g.
Power:	90 - 264 VAC. 47 – 63 Hz; 24 VDC, 12.5 A w. inverter, ≥ 300 W
Electrical I/O:	Analog: 4-20 mA. Serial Digital: RS-485. Relay SPDT-2, 20 A
Communication:	Serial RS485/RS232, Data: Modbus RTU
Datalogger:	Built-in
Environmental Protection:	NEMA 4x / IP 66
Performance (field):	1.0% to 0.1% (application-dependent)

Install anywhere

Non-invasive

No radiation

Inline density measurement

Ultimo Measurement LLC is a privately held industrial process control technology development company dedicated to inline, real-time, non-invasive measurements using our proprietary Percussion technology. Years in development and field tested on five continents by a dedicated, global team of experts in their field, with the support and input of some of the leading process control instrumentation companies.

Our first products enable process manufacturers to avoid using nuclear radiation and invasive methods for online density measurements. These and future products will allow process manufacturers to further optimize their operations by enabling them to make other high-precision, high-accuracy critical measurements automatically, online, and in real time.





NON-INVASIVE MEASUREMENT. STRIKING ACCURACY.

PRODUCT DATA SHEET Ultimo Density Meter V4.2

Ultimo Measurement LLC
www.ultimompd.com

McCormick, SC 29835 USA

Tel: +1-864-391-9070

Fax: +1-401-633-6087

info@ultimompd.com

Useful Features

- Analog and digital outputs
- Self-guided User Interface
- Auto Tuning (available by 2027)
- Multiple calibration methods
- Built-in Datalogger

Application Guide

Real-time process measurement

Non-invasive

No nuclear radiation

Material being measured	Process conditions	Process pipe limitations
Only for: Slurries, loose solids, liquids	Process pressure Any	Pipe wall thickness All pipe thicknesses typically used in heavy-duty industries.
Types of measurements Density % solids, concentration of solids, mass flow calculation by inputting volume flow	Flow rate No practical limits	Pipe size 2 inches plus
Process temperature: Up to 180 C	Ambient temperature -40 to + 60 C	Pipe wall material and construction Metal, plastic, ceramic Non-corrugated, non-rubber-made pipes
Particle size: No practical limits	System vibration Accommodated	Liners All are ok

Applications

- Precious metal and mineral processing/beneficiation
- Oil & Gas
- General & Specialty Chemicals Pulp & Paper
- Energy
 - Fracking
 - Coal-fired power plants
- Dredging