Process Analytics

INGOLD
Leading Process Analytics

THORNTON
Leading Pure Water Analytics

Liquid Analytics
Gas Analytics
Pure Water Analytics

Solutions Overview

Analytical Parameter Measurement

for Industrial Environments

METTLER TOLEDO

Process Analytics Solutions for

- **Pharmaceutical Production and Regulated Waters**
- **Biotech and Biopharma Processes**
- **Chemicals, Petrochemicals and Refining**
- **Pure and Ultrapure Water in Power and Microelectronics**
- **Breweries, Dairies and Sugar Manufacturers**
- **OEMs, System Integrators and Panel Fabricators**
- **Industrial and Make-up Waters**

pH/ORP (Redox) Probes

- ISM sensors with predictive diagnostics
- Hygienic design for SIP & CIP in sterile applications
- Durable probes for harsh chemical applications
- Non-glass probes for meeting safety requirements
- pH probes for pure water

▶ **www.mt.com/pro-pH**

Dissolved O_2, CO_2 and Ozone

- High performance dissolved oxygen sensors
- Optical DO measurement requiring no polarization
- DO sensors for trace levels and pure water use
- Dissolved CO_2 sensors for pharma and beverages
- Dissolved O_3 for pure water

▶ **www.mt.com/pro-dissolved**

Conductivity and Resistivity

- 2-electrode sensors for high purity water
- 4-electrode sensors for medium to high conductivity
- Inductive sensors for high conductivity and calculating major acids/bases and salts concentrations.

▶ **www.mt.com/conductivity**

Gas Analyzers

- TDL gas analyzers for in situ and extractive applications
- Multiple process adaptions for versatile installation
- Measurement parameters include:
  O_2, CO, CO_2, H_2O, H_2S & HCl
- Amperometric oxygen gas sensors

▶ **www.mt.com/pro-gas**

Intelligent Sensor Management (ISM)
Digital Sensors that Learn from Your Processes

ISM sensors offer predictive diagnostic tools including:

Adaptive Calibration Timer
Counts down to next required calibration.

Time to Maintenance
Days until the next recommended maintenance.

Dynamic Lifetime Indicator
Indicates expected remaining life of your sensor.

ISM sensors offer operational enhancements including:

- Increased accuracy with parameter value calculated in the sensor.
- Secure digital signal for installation in areas prone to interference.
- Easy setup with Plug and Measure technology and integrated calibration data.

Learn more at **www.mt.com/ism**

Transmitters

- Multi-parameter and multi-channel transmitters
- HART, Foundation Fieldbus, PROFIBUS PA and DP
- Easy-to-use touchscreen and tactile interfaces
- High installation flexibility, including DIN rail model
- Robust and Ex approved for hazardous areas

▶ **www.mt.com/transmitters**

Housings and Process Adaptions

- Stationary for short running batches
- Retractable for continuous and long-running processes
- Flow-through housings for pipes and bypass installations
- Immersion housings for open vessels
- Automatic calibration and cleaning systems

▶ **www.mt.com/housing**

Turbidity Meters

- Turbidity measurement with 25° and 90° scattered light
- Yellowish color monitoring using blue light for beer
- Backscatter light for medium to high turbidity
- Product monitors for phase separation and product identification by turbidity or color

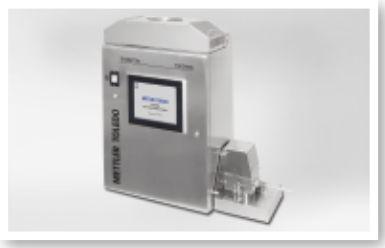
▶ **www.mt.com/turbidity**

Setup and Configuration, Calibration and Preventive Maintenance

- Professional setup and equipment qualification
- Planned calibration and preventive maintenance services
- Electronic documentation delivery and on-demand access to certificates

▶ **www.mt.com/pro-service**

Water Analyzer Portfolio



Microbial Detection Analyzers

- Real-time, on-line microbial monitoring of water
- Continuous measurement of bioburden
- Reliable laser-induced fluorescence technology
- Eliminates errors associated with sample handling

▶ **www.mt.com/7000RMS**

Total Organic Carbon Analyzers

- Continuous on-line monitoring of TOC
- Meets USP <643>, <645>, EP 2.2.44, ChP and JP 16 requirements
- Portable model available for fast, at-line monitoring

▶ **www.mt.com/toc**

On-Line Ion Analyzers

- Reliable, on-line, ppb-level analyzers for pure water treatment and power cycle chemistry applications
- Sodium analyzers
- Silica analyzers
- Chloride and sulfate analyzers

▶ **www.mt.com/pro-analyzers**

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