Panametrics

Industry Solution



Pharma and Life Sciences

Precision Measurement Solutions for Pharmaceutical Manufacturing and Life Sciences Applications

Summary

The pharmaceutical and life sciences industries demand the highest levels of product quality, safety and regulatory compliance. Processes must be tightly controlled to maintain purity, prevent contamination and ensure consistent production of pharmaceuticals, medical devices and healthcare products.

Panametrics provides advanced flow, oxygen and moisture measurement solutions that help manufacturers achieve accurate process control while maintaining sterile environments. With decades of expertise in flow and gas measurement technology, Panametrics delivers reliable, real-time data that supports operational excellence and regulatory compliance throughout pharmaceutical manufacturing operations.

Benefits

- Non-invasive measurement technologies
- Supports GMP-compliant operations
- Maintains sterile and contamination-free processes
- Real time energy consumption monitoring
- Help reducing energy usage
- Improves product quality and consistency
- Real-time process monitoring and control
- Reduced maintenance and operational costs

Key Pharmaceutical Applications

Liquid and Gas Flow Measurement

- HVAC
- Process cooling water
- Utility monitoring
- Compressed air
- Purified Water (PW)
- Water for injection (WFI)
- Clean-in-Place systems (CIP)

Process Analyzer Measurements

- Moisture in Clean, Dry Air Systems
- Moisture and Oxygen in Nitrogen Distribution
- Moisture in Freeze Drying (Lyophilization)
- Oxygen in API & Solvent Recovery
- Humidity in Manufacturing HVAC Systems

Why Panametrics

Flow Measurement

Panametrics ultrasonic flowmeters utilize non-invasive clamp-on technology that eliminates the need to cut pipes or interrupt production. This approach helps maintain sterile process conditions while delivering accurate flow measurement for both liquids and gases.

Manufacturers gain better control of their energy usage to achieve energy reduction targets, improved process visibility, lower maintenance requirements and enhanced operational control without compromising product integrity.

Moisture and Oxygen Measurement

Panametrics brings over six decades of analyzer expertise to the pharmaceutical industry. Moisture and oxygen measurements are critical to maintaining product quality, protecting sensitive materials, and ensuring regulatory compliance. Monitoring oxygen levels in centrifuges and vapor recovery systems is vital for safety systems, and Panametrics offers SIL-rated analyzers for those measurements.

Monitoring oxygen and moisture levels helps prevent contamination and supports process stability in applications including:

- Fermentation
- Packing operations
- Pharmaceutical storage
- Clean gas systems
- Environmental monitoring
- Quality assurance laboratories



Featured Solutions

Liquid Flow Measurement



AquaTrans AT600/620
Clamp-on ultrasonic liquid flowmeter for accurate, non-intrusive measurement of purified water and utility systems.



DigitalFlow DF868
Permanent ultrasonic liquid flowmeter providing accurate flow and energy measurement without pressure loss.



DigitalFlow GC868
Clamp-on gas flowmeter for nitrogen, oxygen and compressed air applications.

Process Analysis



oxy.IQ & XMO2pro
High-performance oxygen analyzers designed for precise oxygen monitoring from trace levels to percentage concentrations.



dew.IQ series
Advanced moisture analyzers delivering fast and reliable dew point measurement.



Optica & OptiSonde
Primary-standard chilled-mirror hygrometers providing highly accurate, NIST-traceable moisture measurement.

Delivering Confidence Across Pharmaceutical Operations

Whether monitoring purified water systems, verifying nitrogen supplies, controlling oxygen levels or maintaining environmental conditions. Panametrics provides the measurement technologies needed to improve product quality, ensure compliance and maximise process efficiency.

Join the conversation and follow us on LinkedIn
linkedin.com/company/panametricscompany

Copyright 2026 by Panametrics LLC. All rights reserved.

PANA008OP (10/2026)

Panametrics

panametrics.com