

Clamp-on and in-line ultrasonic flow \bullet Process moisture \bullet O₂ head space \bullet Trace O₂

INSTRUMENTS · VALVES · CONTROLS

800-953-7626 Sales@Lesman.com www.Lesman.com **PROVIDING**

FLOW MEASUREMENT AND GAS ANALYTICS SOLUTIONS

Stressed by quality control issues related to moisture or oxygen contaminating your process? — See page 2

Concerned about the possible presence of oxygen in the head space of vessels used to store, blend, or react flammable materials?

— See page 3

Want to measure the flow of liquids or energy through a pipe, but can't justify the cost of installation? — See page 4

Frustrated by your current liquid, gas, or steam meter because it limits your ability to measure accurately across the complete flow range? — See page 4



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dew.IQ Single Channel Moisture Analyzer

- Displays moisture content in dew/frost point temperature in °F or °C or as ppmv with a constant pressure input
- Compatible with M series or IQ.probe moisture probes
- Two Form C alarm relays for high and low moisture limits
- · Fail-safe fault alarm relay
- · Rack, bench, panel, and wall mount



moisture.IQ Six-Channel Process Moisture Analyzer



Panametrics moisture.IQ is a datalogging multifunction aluminum oxide-based moisture analyzer that measures trace moisture, pressure and temperature in non-aqueous liquids and gases.

- Supports up to 36 inputs in a single analyzer: Six moisture sensors, each with process temperature and pressure, six non-depleting oxygen sensors, and up to 12 analog inputs from pressure or oxygen transmitters
- Each channel includes recording outputs, alarm relays, Delta F oxygen inputs, and auxiliary inputs standard
- Touch-screen display provides easy access to programming, plus realtime simultaneous display of six or twelve parameters and color-coded measurement results
- Connect to your plant Ethernet network and view analyzer data through a web browser
- Modbus and Ethernet standard, USB port for data management and firmware updates
- · Calibrations traceable to NIST

PM880 Intrinsically Safe Portable Moisture Analyzer

- Measures moisture and humidity content of liquids and non-aqueous gases
- Portable digital meter with handheld sample system
- Compatible with all Panametrics moisture probes
- Internal data logger stores up to 60 log/ site files
- Intrinsically safe, IP67 rated enclosure
- Large display shows real-time and logged data



Aurora Tunable Diode Laser Moisture Analyzer

- Measuring range 0 to 5000 PPMv
- Optical response time: <2 seconds
- No cross-sensitivity to glycols or other contaminants
- Provides continuous data without the need for a grab sample
- No sensing surface to degrade over time, so there's no calibration or maintenance needed
- FM Class I, Div 1 certified for use in hazardous areas

Sample Systems for Gas and Moisture Analyzers



Sample systems provide sample gas to the analyzer at optimal pressure, temperature, flow rate, and cleanliness. They are used for isolation, filtration, and pressure/temperature/flow control of analyzer systems in petrochemical, natural gas, industrial gas, semiconductor, furnace gas and heat treating, power generation, air dryer, and pharmaceutical applications.

Choose from standard systems for common applications, or order an engineered system per your specific requirements.

Benefits of using a sample system

- · Higher accuracy and reliability of measurement
- · Extends analyzer life
- · Reduced analyzer maintenance and associated costs
- · Facilitates field calibration

Call 800-953-7626 for pricing and customizations!



Thermoparamagnetic process oxygen analysis of a low pressure application with remote section of sample, purge, and calibration gases.



Moisture analysis in high pressure natural gas. Dual coalescing filters with bypass flow to remove TEG from sample gas. It can be coalesced out of sample, providing reliable sensor performance.





oxy.IQ Panametrics Digital Oxygen Transmitter

- Two-wire, loop powered 4–20 mA transmitter
- Proven galvanic fuel cell O2 sensor technology
- User selectable ranges from 0–10 ppm to 0–10000 ppm or 0–1% to 0–50% oxygen
- Display shows measured value, sensor lifetime indication, NAMUR error indication
- · Front keypad for selectable and programmable ranges
- · Sensor failure output error

The oxy.IQ is a highly reliable and cost-effective two-wire loop-powered transmitter with a linearized 4–20 mA output. It measures oxygen in ten different selectable ppm ranges and seven selectable percentage ranges, using proven sensor technology to accurately measure oxygen in a variety of gases. When equipped with optional zener barriers, the oxy.IQ can be mounted in hazardous locations.

XMO2 Thermo Paramagnetic Smart Oxygen Transmitter/Analyzer

- Measures oxygen from 0.01 to 100% in gases
- No moving parts; maintenance-free
- · Corrosion-resistant design
- · Automatic background-gas compensation
- Suitable for use in inerting/blanketing liquid storage tanks, reactor feed gases, centrifuge gases, catalyst regeneration, solvent recovery, landfill gas, sewage wastewater digester gas, and oxygen purity applications

Panametrics XMO2 is a tough and compact thermo paramagnetic oxygen transmitter with a dual chamber and no moving parts. Due to the rugged design, the XMO2 is weatherproof, explosion-proof, flameproof, resistant to contamination, and flow variation. It requires a 24 VDC power and gives a 4-20mA output with fully programmable zero and span settings. The XMO2 has the computing power to provide online signal conditioning and digital communications via an RS232 interface. Integrated signal processing provides improved accuracy and automatic compensation for background gas variations and/or atmospheric pressure effects.





XDP Explosion-Proof Display for Gas Transmitters

- · Explosion-proof and flameproof transmitter display
- · Adds local visual indication to XMO2, XMTC, or any other 4 to 20 mA output transmitter
- Displays hydrogen or oxygen measurement in percent or ppm
- · Three-curve software for hydrogen-cooled generator
- Programmable process relay contacts
- Certification: Class I, Division 1, Groups B, C, & D, and EX II 2 GD EEx d IIC T6 hazardous areas
- · Magnetic through-the-glass keypad
- Universal AC input
- 24 VDC power supply for XMO2, XMTC or O2X1

Learn more about GE Panametrics products and get full specs at bit.ly/lesman-ge

TransPort PT900 Clamp-On Flowmeter for Liquid Flow Measurement



- Portable datalogging flowmeter can be moved easily to different location for temporary or spot flow measurement or check metering
- TransPort® system includes clamping fixture with transducers, flow transmitter, carrying case and accessories
- Measurement accuracy improved to ±1% of reading
- · Easy to install clamping fixture
- Intuitive touchscreen programming
- Bluetooth® communication between transmitter and tablet
- · LED health indicators to ensure it's always ready to use

AquaTrans AT600 Single Channel Ultrasonic Liquid Flowmeter

- · Clamp-on transducers for non-intrusive flow measurement
- Works with a wide range of pipe materials, even for lined pipes, in sizes from 2" to 24"
- · About 30 minutes to unpack, install, and program
- · No drifting readings, moving parts, or pressure drop
- New more powerful ultrasonic transducers, improved performance with no risk of leaks
- · Permanent solid couplant for clamp-on applications



DigitalFlow DF868 Liquid Ultrasonic Energy Meter

- · Non-intrusive flow measurement
- Hazardous location certification
- Two-channel/ two-path version available
- Suitable for a wide range of pipe sizes and materials
- Energy measurement option
- · Velocity, volumetric and energy flow rates
- · Totalized flow and trend data

DigitalFlow GS868 Ultrasonic Steam Mass Flowmeter

- For 2" to 48" pipe sizes, and a bidirectional range of ±150 ft/sec
- Non-obstructive flow measurement
- · No moving parts, low maintenance
- · No pressure drop
- Wide rangeability with 1500:1 turndown ratio
- Tolerant to dirty streams, high temperatures
- Two-path measurement for maximum accuracy

PanaFlow Z1G Ultrasonic Volumetric Gas Flowmeter



- Fits 3", 4", or 6" pipe sizes
- Provides ±0.5% accuracy and peace-of-mind redundancy
- With no interference from welds, an all-cast body provides high accuracy flow measurements, even at low flow conditions
 - Field-replaceable transducers for easy maintenance
 - Operating temperature:
 -4° to 176°F
 - Ex-D certified for hazardous installations

PanaFlow Z3 Three-Path Ultrasonic Flowmeter for Liquids

- Fits 3" to 8" pipe sizes, and comes with 150#, 300#, or 600# rated flanges
- ±0.5% accuracy, peaceof-mind redundancy, and the ability to see more of the flow profile
- No drift, no pressure drop, no restriction in the pipe, no moving parts

 nothing to impact your process or damage the flowmeter
- Process temperatures: -40° to 185°F
- Approval: Explosion-proof Class 1, Division 1, Groups B-D, IP67