Product Guide

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LEVEL MEASUREMENT

AMETEK is home to some of the best name brands in the pressure and level measurement world. With brands like Drexelbrook, BW Controls, U.S. Gauge and PMT Products our success has been based upon decades of proven performance in the most demanding applications. AMETEK supports you by helping to specify the perfect technology and product solution for your needs. From configuration to commissioning and installation, we are there through every step of the process to insure years of trouble free performance with our products.

PRESSURE MEASUREMENT

AMETEK-U.S. Gauge pressure products range from general equipment; test gauges; process gauges; liquid filled gauges; specialty application gauges for many different types of applications including: welding, specialty gas, medical, refrigeration, sprinkler systems, and boiler systems gauges.

Diaphragm seals are manufactured in many different materials including 316 SST, Hastelloy, Monel, and Tantalum, for use with process and liquid filled gauges, as well as pressure transmitters or switches.

AMETEK PMT Products pressure transducers and transmitters are some of the most long term stable units on the market, due to our solid state silicon piezoresistive sensing element. Standard, intrinsically safe, and explosion proof transducers and transmitters are available in off-the-shelf models for quick delivery, or custom configurations. PMT specializes in small volume manufacturing lots, customizing transducers and transmitters designs for unique applications. Other PMT pressure products include pneumatic controllers and ultra high purity gauges, switches, and transmitters.

FACTORY AUTOMATION

GEMCO is AMETEK Factory Automation’s flagship product line that includes linear and rotary position sensors, PLC and network interface products, press automation, programmable limit switches, Catrac cable and hose carriers, industrial brakes, and more. These products are designed for applications where high accuracy, high speed and high reliability in harsh environments is important. Patented technology allows GEMCO products to outlast competitive products in steel mills, lumber mills, stamping presses, and heavy moveable structures.

TEMPERATURE MEASUREMENT

AMETEK-U.S. Gauge offers digital and analog temperature products, including 3” and 5” bimetallic thermometers for industrial applications, and themowells in many different configurations, and exotic materials. U.S. Gauge’s explosion proof DT-8300 EX digital thermometer can be used in hazardous locations for temperature measurement.
AMETEK Drexelbrook is known throughout the world as a leader in level measurement technology. We’ve earned our reputation for excellence from over five decades of experience in providing level solutions to virtually every industry including oil and gas, chemical, petrochemical, refining, power, water and wastewater, food, pharmaceutical, pulp and paper, mining, automotive, and many others.

AMETEK – U.S. Gauge is one of the world’s leading suppliers of high quality, competitively priced pressure gauges and diaphragm seals. Founded in 1904, USG’s product offering includes bourdon tube and diaphragm pressure gauges, from 1-1/2” to 6” in size, with brass, Monel, or 316L SST internals. USG also offers a complete line of diaphragm seals with threaded, flanged, flow through and sanitary connections. Both the process gauges and diaphragm seals are manufactured at our Largo, FL, U.S.A., facility.

AMETEK – PMT Products offer transducers, transmitters, pneumatic controllers, and ultra high purity products. The transducer and transmitter product line ranges from low cost, fixed range industrial transducers to field adjustable transmitters with intrinsically safe or explosion proof approvals. The ultra high purity gauges, and switches are manufactured in a Class 10 clean room. PMT also manufactures pressure pneumatic controllers that meet the EPA NSPS 0000 (Quad 0 Compliance) standard.

The GEMCO brand of automation process controls, position feedback products, cable / hose carrier systems, and industrial brakes have over 65 years of proven performance in the world’s harshest environments. Conditions of high shock, vibration, temperature, contaminants, and ultra-high speed processing are applications and manufacturing challenges we deal with and satisfy daily.

The Gemco line of linear displacement transducers use advanced filed proven magnetostrictive technology to solve complex linear positioning applications. Engineered to perform and built to last, the Gemco linear displacement products and their complementary components will meet and exceed your process and positioning needs.
Point Level Measurement

IntelliPoint
- Line powered and 2-wire options available
- Ignores changes in dielectric or conductivity
- Response time of less than one second
- Self checking Autoverify™ feature
- Full approvals for hazardous environments

The Point
- Line powered and 2-wire options available
- Auto calibration - simply install and apply power... that's it!
- Response time of less than one second
- Full approvals for hazardous environments

Z-tron IV
- Quick and simple calibration
- Sensitivity: 0.3 pF or less
- General purpose environment

TF-100 Vibrating Level Switch
- Relay, current, or PNP outputs
- Temperatures from -58 to 302°F, pressure from vacuum to 928 psi
- No calibration required

VeriGAP - Ultrasonic Gap Switch
- Ideal for high and low point level measurement in clean liquids
- Response time of 2 seconds
- Verify circuitry check that the system is functioning correctly for guaranteed safety

Floating Roof Tanks - Spill Prevention
- Specifically designed for internal/external floating roof tanks with a flexible probe
- Field adjustable lengths from 1' - 18' (0.3 to 5.48m) to 12" - 216" (305mm to 5486mm)
- Continuous self-test feature monitors circuits and sensing elements for faults

Dumpstar - for Oil/Water Interface
- Compact, retractable, reliable indication of crude oil/water interface levels in oil production separators
- No moving parts reduces repair and downtime
- Cote-Shield electronics ensure repeatable level indication regardless of temperature or density changes

Clear Line, In Line Fluid Detector
- No maintenance, dependable detection regardless of conductive coatings or product build-up on the sensor
- Easy to Install, mounts directly into existing pipelines
- Factory calibrated — no field adjustments

MultiPoint II
- Offers up to four control points on a single sensing element
- Available in integral or remote mounted versions
- Operating point range of 0-200' depending on sensing element

Plugged Chute Detector
- Detects the presence of powders to heavy abrasive materials plugged in chutes
- Electronics can be remote mounted to a convenient, safe location
- Response time of less than one second
Continuous Level Measurement

**Universal IV Pro and Lite**
- Accurate measurement within 0.25% of range
- Measurement span from 1" (25mm) to 800' (244mm) with no dead zone
- Over 125 probe types for a wide variety of applications

**USonic - Ultrasonic Level Transmitter**
- SMART GAIN circuitry ignores false echoes from internal tank obstructions
- Superior accuracy - 0.15% of range
- 2-wire HART intrinsically safe or explosion proof, suitable for Class 1, Division 1, hazardous locations
- Can make measurements in pipes as small as 2"

**DR7000 - Level Radar**
- 2-wire intrinsically safe design ensures false echo rejection, even with agitators
- Allows level measurements in liquids, slurries, solids and granulars up to 131'
- High temperature and high pressure design

**DR6300 - Non Contact Radar for Solids**
- Unique drop antenna design prevents build up in dusty applications
- ±0.12" (±3mm) standard accuracy
- Measuring range up to 260' (80m)

**DR5200 - 2 wire Radar Level Meter**
- Modular design: horizontal or vertical installation is suitable for nearly all installations
- Measuring range up to 98.4' (30m)
- Universal measurement device for liquids, pastes, and slurries

**DR7100 - Guided Wave Radar**
- 2-wire design with superior Time Base Stability provides increased reliability
- 5 different probe designs to measure level and interface
- Accuracy to 3mm in liquids; not affected by product variations

**DR2000 - Modular GWR Level Meter**
- 2-wire, loop powered HART level meter for liquids and solids
- Measuring range up to 131' (40m)
- Remote converter can be installed up to 328' (100m) from the probe

**Level Mate III - Level Measurement System**
- Displays data from the transmitter, provides excitation voltage, and transmits an analog signal for remote recording, alarm or control functions
- Rugged stainless steel housing with programmable displays and function keys
- Intrinsically safe models available

**Total Tank Level System**
- Accurately measures total level, interface, and temperature with magnetostrictive technology
- Accuracy of 0.01%
- 4-20mA, modbus and Hart outputs

**Impulse™ - Guided Wave Radar**
- Low cost TDR
- 2 wire, loop powered, HART, level meter
- 50 foot measuring range
- ± 3mm accuracy

**Drexelbrook - Water Cut Meter**
- Universal IV Water Cut Meter
- 0-50% in Light Oil and 0-80% in Heavy Oil
- Accuracy: ±0.03 variance in 0-1% range
- Temperature and density compensation
- In-line spool piece design also available

**In a class by itself:**
The Drexelbrook® Water in Oil Cut Monitor
Pressure and Temperature

Model 1981 4-1/2” Process Gauges
- 316L SST seamless bourdon tube
- Solid front case
- Field fillable case with EZ Fill option

Model IDT - I.S. Pressure Transmitters
- Intrinsically safe for hazardous area applications
- 0.2% typical accuracy
- Plug and play reliability; factory pre-calibrated

Model XR Series Gauges and Diaphragm Seals
- Leak proof, tamper resistant gauge and seal
- Model 1981: 316 SS socket and 316L SS seamless bourdon tube
- Model 1986: Monel socket and Monel seamless bourdon tube

Model DCT Pressure Transducers
- Designed for a wide range of applications
- Pressure ranges from 1 psi up to 3,000 psi
- Accuracy: less than ±0.3% full scale over pressure and less than ±1.0% full scale over a compensated temperature range

Model 656 Liquid Filled Gauges
- 2-1/2” (63mm) and 4” (100mm) sizes
- 316L SST bourdon tube and socket
- Available factory filled with glycerin, silicone, or mineral oil

Model 831 Fixed Range Transmitters
- Available in differential pressure, low power or standard versions
- All welded 316L stainless steel construction
- Explosion-proof and intrinsically safe

Model P-500 General Utility Gauges
- Sizes: 1 1/2”, 2”, 2 1/2”, 3 1/2” and 4 1/2” steel
- Accuracy: ±3-2-3% or ±1.8% full scale
- Low lead version

Model 88 Pressure Transmitters
- Stainless steel transmitter available in standard and flushmount versions
- Accuracy: 0.25%
- Explosion-proof and intrinsically safe

Model IPS - High Purity Switch Gauges
- No power required – magnetically actuated reed switch
- Low alarm and high alarm configurations available
- Available in VCR or NPT connections

Diaphragm Seals
- Threaded, flanged, flow through, saddle mount, and sanitary seals
- Available in over 20 different materials including 316L, Hastelloy, and Monel
- Factory mounts gauges before shipping

Model 40 Pneumatic Controllers
- Modular design and pre-calibrated elements for quick field changes
- Meets EPA Quad Zero requirements when used on natural gas supply
- 3-15, 3-27, 6-30, and 12-60 psi outputs

Temperature Products
- DT-8300 EX explosion proof digital thermometer; adjustable and back mount
- 3” and 5” bimetallic thermometers
- Thermowells
Gemco manufactures a complete line of position feedback devices that are known for their robustness and high performance.
AMETEK Drexelbrook’s comprehensive product offering enables us to provide our customers with the best level measurement solution for any application.