

Process Measurement Instrumentation for your Level and Flow Applications

Krohne is a global leader in the design, development, and manufacture of innovative and reliable process instrumentation such as level sensors and flowmeters. Measurement solutions provided to all industries worldwide include:

- Petrochemical
- Chemical
- Food & Beverage
- Water & Wastewater
- Pharmaceuticals
- And many more!

KROHNE



Level Measurement

OPTIWAVE — Noncontact Radar Level Meter

- Measures distance, level and volume of liquids, pastes and solids
 - Accurately measures in difficult conditions, including high temperatures, corrosive liquids, agitated surfaces, foam, and solids with dust or internal objects
 - Frequency Modulated Continuous Wave (FMCW)—continuous measurements provide greater accuracy over pulse-generated level instruments
 - Maximum measurement distance: 260 ft (80 m)
 - ± 0.12 " (± 3 mm) accuracy
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OPTIFLEX — Guided Radar Level Meter

- Measures distance, level, interface, level and interface, volume, and mass of liquids, pastes, granulates, powders, and liquid interface
 - Best option for measuring bulk solids, liquid interface, storage or process tanks and side chambers, or stilling wells
 - Time Domain Reflectometry (TDR)—electromagnetic pulse travels down probe until it reaches the media interface
 - Maximum measurement distance: 115 ft (35 m)
 - ± 0.12 " (± 3 mm) accuracy
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OPTISOUND — Noncontact Ultrasonic Level Meters

- Level measurement of liquids and solids, and flow measurement and detection in open channels
 - Level measurement during processing and storage of liquids in sumps, water, and wastewater basins
 - SMARTGain™ technology ignores obstructions mounted within the ultrasonic beam path
 - Maximum measurement distance: 147 ft (45 m)
 - $\pm 0.15\%$ or 0.2" (5 mm) accuracy of sensor range, whichever is greater
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Contact us today!

800-358-5525 Davis.com

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INSTRUMENTS



Flowmeters

OPTIMASS — Coriolis Mass Flowmeters

- Measures mass flow, density, volume, temperature, mass or volume concentration, and solid content
- Straight single-tube construction minimizes pressure losses and tube abrasion, and eliminates errors due to tube imbalance
- Patented Adaptive Sensor Technology (AST) tunes each meter independently of external forces and fluid density to provide stable, accurate measurements
- Diameters from 1/4" to 12" (2.5 mm to 305 mm)
- $\pm 0.1\%$ (liquid) and $\pm 0.5\%$ (gas) accuracy

Applications: Mass balance, chemical reactions, custody transfer (buying or selling material), use of costly materials (accuracy minimizes excess materials)

OPTIFLUX — Electromagnetic Flowmeters

- Measures volumetric flow rate, temperature, and conductivity as low as $1 \mu\text{S}/\text{cm}$
- Internal diagnostics monitor accuracy and linearity of signals and electronics
- Accurately measures pulsating flows, up to 200 pulses/minute
- Diameters from 1/4" to 120" (2.5 mm to 3,048 mm)
- $\pm 0.15\%$ accuracy

Applications: Conductive liquids or slurries (<30% solids), volumetric flow rate (controlling, totalizing, batching, or chemical injection), pulsating flows, custody transfer (buying or selling)

OPTISONIC — Ultrasonic Flowmeters

- Measures volumetric flow rate with multiple beam paths, providing high accuracy independent of viscosity, temperature, and conductivity
- Eliminates pressure loss due to no flow obstructions and smooth tube construction
- Pressure / temperature data inputs provide accurate volumetric and mass flow measurements
- Diameters from 1" to 80" (25 mm to 2,032 mm)
- $\pm 0.5\%$ of MW accuracy

Applications: Clean liquids (<5% suspended solids, <2% entrained air), nonconductive liquids, volumetric flow rate (controlling, totalizing, batching, or chemical injection), extreme high or low temperatures, custody transfer (buying or selling)

OPTISWIRL — Vortex Flowmeters

- Measures volumetric and mass flow of conductive and nonconductive liquids, gases, and vapors
- Two-wire flowmeter with integrated pressure and temperature compensation
- SIP and CIP processes for food, beverage, and pharmaceutical applications
- Flanged and wafer diameters from 3/4" to 12" (19 mm to 305 mm)
- $\pm 0.75\%$ (liquid) and $\pm 1\%$ (gas/vapor) accuracy

Applications: Volumetric flow rate (purge monitoring, totalizing, managing utilities), gas or steam, liquids (clean, low viscosity)



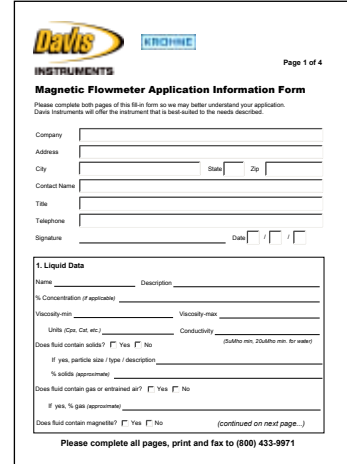
Custom Application Data Forms

Let Davis Instruments help design the Krohne Level Meters and Flowmeters that best suit your applications. Complete the required Application Information Forms (see web sites below) to customize the instrumentation based on your specific needs.

Level Meters: www.davis.com/krohne/levelappform

Coriolis Mass Flowmeters: www.davis.com/krohne/corappform

Electromagnetic Flowmeters: www.davis.com/krohne/magappform

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INSTRUMENTS
Magnetic Flowmeter Application Information Form
Please complete both pages of this form so we may better understand your application. Davis Instruments will offer the instrument that is best suited to the needs described.

Company _____
Address _____
City _____ Date _____ Zip _____
Contact Name _____
Title _____
Telephone _____
Signature _____ Date _____ / _____ / _____

Liquid Data
Name _____ Description _____
% Concentration (if applicable) _____
Viscosity (cP) _____ Viscosity (mPa) _____
Units (Cm, CM, etc) _____ Conductivity _____
Does fluid contain solids? Yes No (Specify max. 2000µm for water)
If yes, particle size / type / description _____
% Solids (approximate) _____
Does fluid contain gas or entrained air? Yes No
If yes, % gas (approximate) _____
Does fluid contain magnetite? Yes No (continued on next page...)
Please complete all pages, print and fax to (800) 433-9971



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