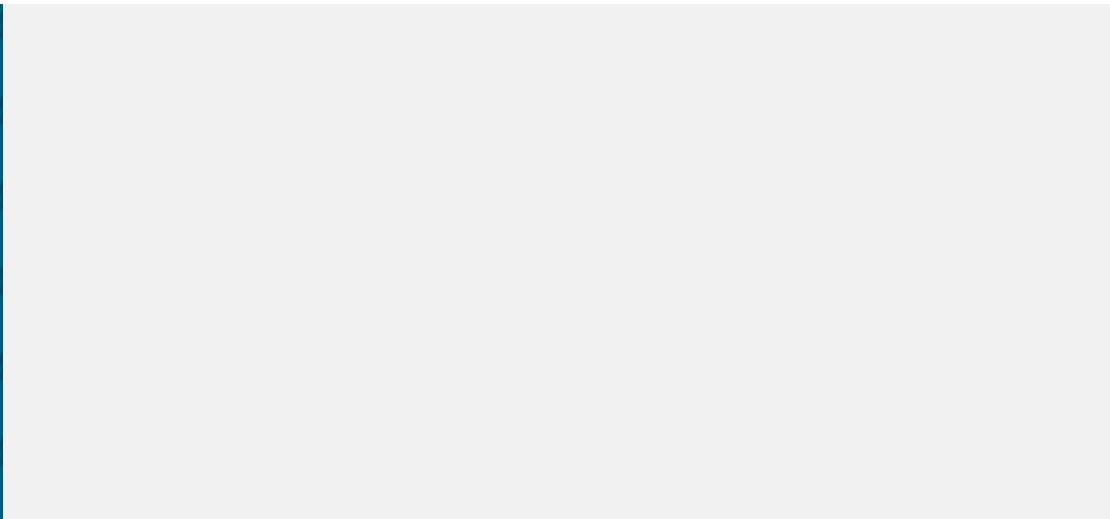




Only Kistler-Morse™ Offers Such a Wide Range of Inventory Measurement and Management Solutions from a Single Source.

Bolt-On, Direct Support, and Ultrasonic sensors provide a choice of continuous non-contact weight or level measurement. KM can provide level or weight indicators for single or multi-vessel applications and our controllers are versatile and reliable. We offer a wide choice of analog and digital interface options. The flexibility of our products allows you to assemble a measurement system for almost any kind of bin, vessel, tank or silo, containing almost any conceivable bulk solid or liquid material. Our expert applications and service group will assist you from start to finish and for non-standard applications, will work with you on a custom solution. Whatever your application, Kistler-Morse can give you the inventory measurement and control capabilities you need.



For three decades, Kistler-Morse™ has been designing and manufacturing premier weight, level and batching measurement solutions for Bulk and In-Process industries around the world. You'll find us at work throughout the food/beverage, concrete/aggregate, plastics, power and chemical industries, personal care, and pharmaceutical/biotech, in virtually every kind of bin, silo, blender and tank.

Synonymous with reliability, durability and consistency, KM provides essential information to its customers so they may better measure, monitor and control materials throughout their processes. At our core is a commitment to developing tailored solutions—solutions that meet today's requirements, as well as incorporate the flexibility to address your needs tomorrow.



To find out more about KM products and services, call us today or visit our web site.



150 Venture Boulevard
Spartanburg, SC USA 29306
1.800.426.9010
tel: 864.574.2763
fax: 864.574.8063
kistlermorse.com

product brochure

Bolt-On Weighing Systems



KM pioneered the popular bolt-on, strain gage, sensor technology for continuous measuring of vessel weight. Bolt-on sensors measure the stress level changes in vessel supports caused by material movement and therefore are not fooled by side build-up, angles of repose or air pockets. Quickly and easily installed, this non-intrusive, cost-effective method is an excellent alternative to traditional level sensing.



Microcell™

The original single-axis bolt-on strain gage sensor for measuring the stress in a wide range of bulk storage vessels. When Microcells are bolted on to a vessel support member, it converts the vessel into a weighing system. No need to empty the vessel or take it out of production to install or service.



L-Cell™

A dual-axis strain gage sensor that is bolted to the vessel's support structure, measuring changes in stress in the vessel support member. The second axis compensates for temperature variations, providing a cost effective, industrial weighing system. No need to empty the vessel or take it out of production to install or service.

**BOLT-ON SYSTEMS
USE THESE INDICATORS**

Weight Indicators

With KM indicators you can monitor from 1 to 120 vessels of level, weight or a combination thereof. The SVS,™STX,™ and Weigh II™ feature operator-selectable speeds and resolutions. The MVS™ is designed to custom-configure your system with off-the-shelf input and output requirements, for the right system you need today, and the ability to easily expand in the future.



SVS 2000™

Full featured weight indicator for in-process or inventory weighing and batching. Includes KM's Sentry™ DSP filter providing stable, accurate readings under a variety of conditions as well as Quick-Config for fast and easy calibration without test weights or special load cells. Available in NEMA-4X fiberglass reinforced polyester or optional stainless steel enclosure.



STX™

A stand-alone blind transmitter for in-process or bulk inventory weighing applications where a display is not required. Powerful device with serial and optional analog output to communicate effectively with host control systems. RS-422/485 serial port allows multi-drop network configuration that simplifies field installation and wiring, resulting in reduced installation costs. Available in NEMA-4X fiberglass reinforced polyester or optional stainless steel enclosure.



Weigh II™

A flexible four vessel indicator for inventory monitoring or single vessel in-process weighing applications. Unit includes Sentry™ DSP filter which separates mixer and plant vibrations from weight changes. It is configurable for a number of sensors, relays, current loops, and PLC interfaces. Available in NEMA-4X fiberglass reinforced polyester or optional stainless steel enclosure.



MVS™

A powerful and versatile, multi-functional signal processor and display for continuous level and weight monitoring that is fully configurable and expandable for up to 120 vessels. The MVS™ is configured with input and output cards to match the specific needs of the application. Available in NEMA-4X wall-mount enclosure or in rack-mount suitable for a control room environment.

Interfaces

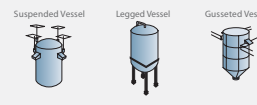
Analog and digital interfaces are available for single and multi-point indicators/controllers giving you the ability to connect KM weight indicators via Allen-Bradley Remote I/O, Modbus, Profibus, DeviceNet or serial protocol, eliminating the need for special software for communicating with a variety of factory buses. Wiring costs are significantly decreased.



PLC/PC

Flexible interconnectivity to a wide range of digital buses offers accurate and efficient transfer of system data and operating parameters. Digital interfaces offer greater data resolution, simpler wiring, as well as greater data volume than the traditional analog data exchange methods.

Direct Support Weighing Systems



Designed for high accuracy applications, KM load cells are ideal for applications ranging from sanitary SIP/CIP conditions to rugged outdoor environments. KM load cells deliver reliable, repeatable measurements for varied operating conditions and applications, from 110 to 1,000,000 lb. capacities. Secured to your tank, KM provides a safe, direct support weighing solution.



LD3™

Utilizing the proven KM semiconductor strain gage technology, the LD3™ Compression Load Cell continuously measures the weight of material for in-process and bulk storage vessels. The LD3™ is suitable for a wide range of applications from dry, solid material measurement to high-pressure washdown, corrosive or submerged environments. Available with a 0.08% accuracy in capacities from 1,000 to 25,000 lbs.



LD360s™

Designed specifically for SIP/CIP applications. Its smooth sealed exterior minimizes food traps making it the first choice with bio pharm, pharmaceutical and food and beverage manufacturers where process risks are highest and costly downtime must be avoided. Lock down security packaged in 17-4 food-grade stainless steel and a watertight Turck™ cable system that seals out moisture. Available with a 0.08% accuracy in capacities from 1,000 to 25,000 lbs.



LD II™

Incorporates a stainless steel hermetically sealed package for protection in high pressure, washdown environments. It's low-profile design, for low clearance installations, also keeps the vessel's center of gravity low and stable. Vessel tipping, walking or overturning while agitating is eliminated. Available with a 0.1% accuracy in capacities from 150 to 100,000 lbs.



LD3xi™/LD3xiC™

With an accuracy of 0.03% this load cell is suitable for smaller capacity weighing from 220 to 22,000 lbs. The LD3xiC™ includes a tough "cage" mounting fixture. The cage isolates the load cell from tank expansion, etc. The 3xi load cell can be installed before or after the tank is mounted onto the fixture, providing more flexibility in mounting procedures.



Load Stand II™

A load cell for weighing large vessels. The monolithic design becomes an integral part of the vessel structure for rugged, maintenance free, weight measurements, with full UBC wind and seismic ratings. The sensing elements are field replaceable without taking the vessel out of service. Available in 25,000 to 1,000,000 lb. capacities.



TC1-S Tension Cell

Delivers a high accuracy weighing system for suspended in-process vessels. Has no moving parts to wear out or fall out of adjustment. The waterproof design makes it ideal for outdoor as well as indoor applications. Construction is alloy steel with nickel plating for high accuracy and corrosion resistance and is fully sealed to IP67 rating.

**DIRECT SUPPORT SYSTEMS
USE THESE INDICATORS**

Ultrasonic Level Systems



Non-contact ultrasonic level measuring system provides continuous measurement and monitoring of levels in vessels containing powders, solids, liquids, and slurries. Non-contact means no contamination of material and no lost parts or cables. Its modular design allows easy configuration for various numbers of sensors, relays, point level inputs, current loops, and PLC interfaces.



ultra-cell™

The combination of features, such as high power and extremely narrow beam angle make this unit the choice for plastic challenging applications. Laser-sharp transducer works in narrow bins; just pick your target and shoot. Combined with the ultra-wave™ indicator, the system is unsurpassed in capabilities.



sono-cell™

Standard sensors are made of CPVC and come in 20, 50, and 100 foot ranges. Sensors housed in stainless steel with a TFE face are also available for clean-in-place, high temperature, and caustic applications.



hydra-wave™

General purpose ultrasonic transducers in ranges from 0.36 feet to 40 feet with automatic temperature compensation. The digital signal filtration eliminates false echo signal returns while the fail-safe intelligence provides maximum process safety. Housed in rugged NEMA-4X enclosure. Comes standard with 4-20 mA current output.

**ULTRASONICS USE
THIS INDICATOR**

Level Indicator/Controller



ultra-wave™

Monitors vessels with up to 16 transducers of various frequencies, and vessels of different heights/shapes. Compatible with KM sono-cell™ and ultra-cell™ as well as transducers from most other manufacturers. Includes KM Sentry™ DSP filter providing stable, accurate readings under a variety of conditions. Also has Quick-Config for pre-calibration without special software. Optional stainless steel enclosure available.

Remote Monitoring

Provides a reliable means of gathering and transmitting real-time inventory information from anywhere, anytime via Intranet or the Internet. Also allows suppliers to manage their customers' inventories more effectively than ever before. The result is a fully functional remote Vendor Managed Inventory (VMI) system by which a supplier keeps track of a customer's inventory, scheduling deliveries according to known thresholds thereby reducing the high cost of data collection, personnel and equipment, measurement errors, and overstocking for both supplier and customer. Suppliers make fewer delivery runs and eliminate wasteful haul-backs or split-loads, while customers minimize inventory, reduce lead-time, and eliminate run-outs.



ORB 2.0™

Interfaces with KM sensing system or 4-20 mA output device to monitor and log system performance and activity. High volumes of data can be organized by various users within the plant as well as remotely. Current and historical inventory data are available to sites and users via internet/intranet with administrative issued access. Continually monitors and alerts defined users about material and alarm conditions.

Service



Expert phone and e-mail support is standard with all KM products including application reviews to ensure the proper match of product and performance. Superior nationwide factory authorized service technicians provide commissioning, calibration and on-site troubleshooting for a turnkey application solution. KM service personnel are regarded as the best in the business.

Custom



At KM we customize solutions for your unique inventory measurement and management problems. Standard products can be modified or systems custom designed to meet your application requirements. For large scale systems, our expert applications group can offer customized, detailed installation drawing packages making the overall installation and start-up much easier. Before accepting that your application cannot be met, see your sales representative about KM custom engineered solutions.