

RML2000

Coriolis Mass Flow Custody Transfer

Advanced LP Gas Measurement Accuracy On the Bobtail



It's here... fully electronic flow measurement and transaction management on the bobtail. Successful in industrial applications for decades, proven Itron Coriolis mass measurement technology now goes mobile on the bobtail.

Reducing costs today... and tomorrow

Coriolis mass measurement reduces LP Gas under-measurement—thanks to outstanding accuracy stability between yearly calibrations. Compared to traditional mechanical flowmeters, the Itron mass flowmeter offers better accuracy with higher flow rates over a longer service life, thanks to its unobstructed dual vi-

brating tube design. No-moving-part technology reduces maintenance costs related to both product measurement and registration.

The Coriolis mass flowmeter provides volumetric flow measurement of LP Gas when interfaced with the same E4000 Electronic Register used with Itron Type 4D-MT mechanical flowmeters. With the outstanding flexibility of the E4000 Register, the Itron mass flow system allows an upgrade path not obtainable with competitive electronic transaction management systems. Electronic temperature compensation further enhances measurement accuracy.

The E4000 menu-driven register functions are easy to learn and re-

member. Interfacing through common handhelds and laptops makes data management fast and easy between truck and office.

Easy implementation

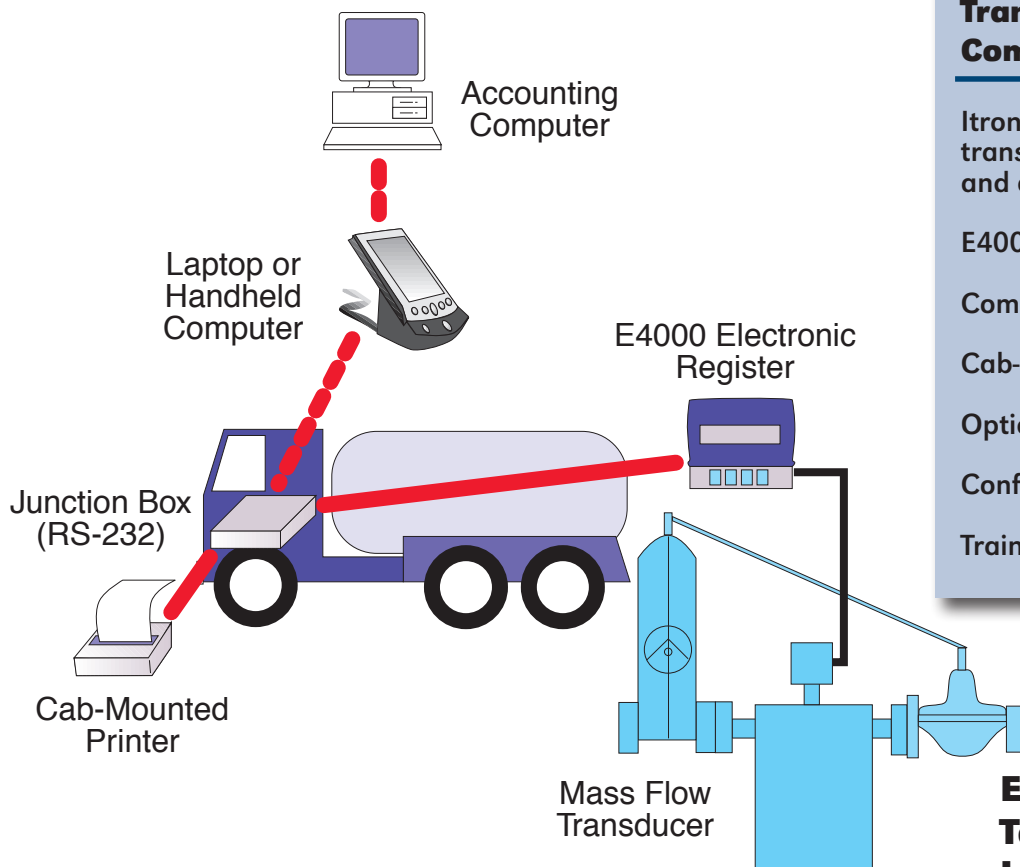
Accuracy savings aside, the space-efficient Itron system is cost-effective to implement on both new and existing vehicles. Retrofitting is easy using existing Itron vapor releases and differential valves.

Here's stable accuracy, reduced maintenance, fast payback, plus the most cost-effective upgrade path in the market. Couple these benefits with strong Itron support, and you can start realizing the benefits of total electronic operations today.

TS-614 Coriolis Mass Flow Custody Transfer

Features and benefits

- Reduced product losses between yearly calibrations
- No-moving-part technology means more reliable operation, less downtime and longer life cycles
- Typical payback less than two years based on accuracy stability alone
- High-frequency electronic temperature compensation sampling for improved accuracy
- Easy-to-use E4000 Electronic Register
- Electronic register handles multiple products and multiple pricing tables
- Electronic capture of all transaction data eliminates manual errors
- From simple pump and print to full electronic inventory management—all in one model without upgrades
- Communicates easily with office accounting and route management applications
- Itron Coriolis mass flowmeters have applications from the bulk terminal to the end user: bulk transport, multi-product distribution, residential distribution, fuel oils, gasoline, aviation fuels
- Established technology in a new application—from a long-established name in LP Gas bobtail metering
- Itron service and support

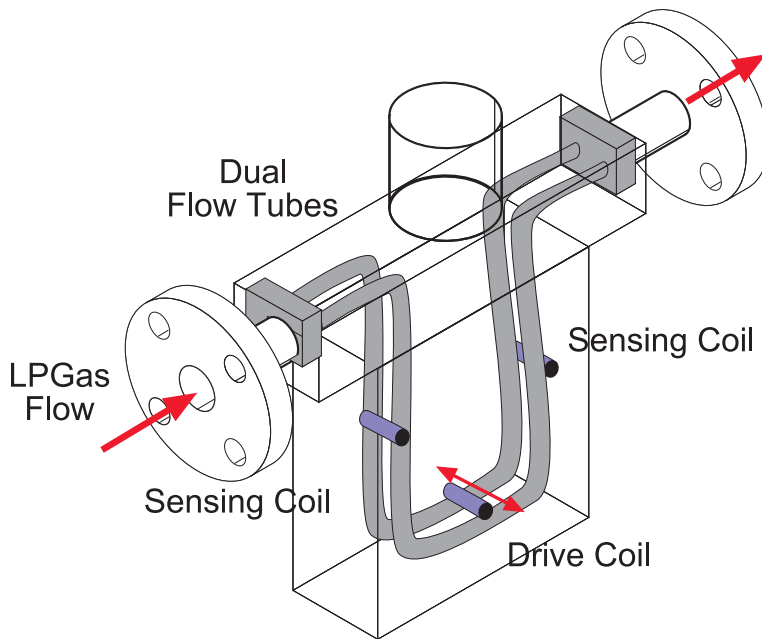


Itron Mass Flow Custody Transfer System Components

- Itron Coriolis mass flow transducer with vapor release and differential control valve
- E4000 Electronic Register
- Compact junction box
- Cab-mounted printer
- Optional flow valve
- Configuration software
- Training, support and consulting

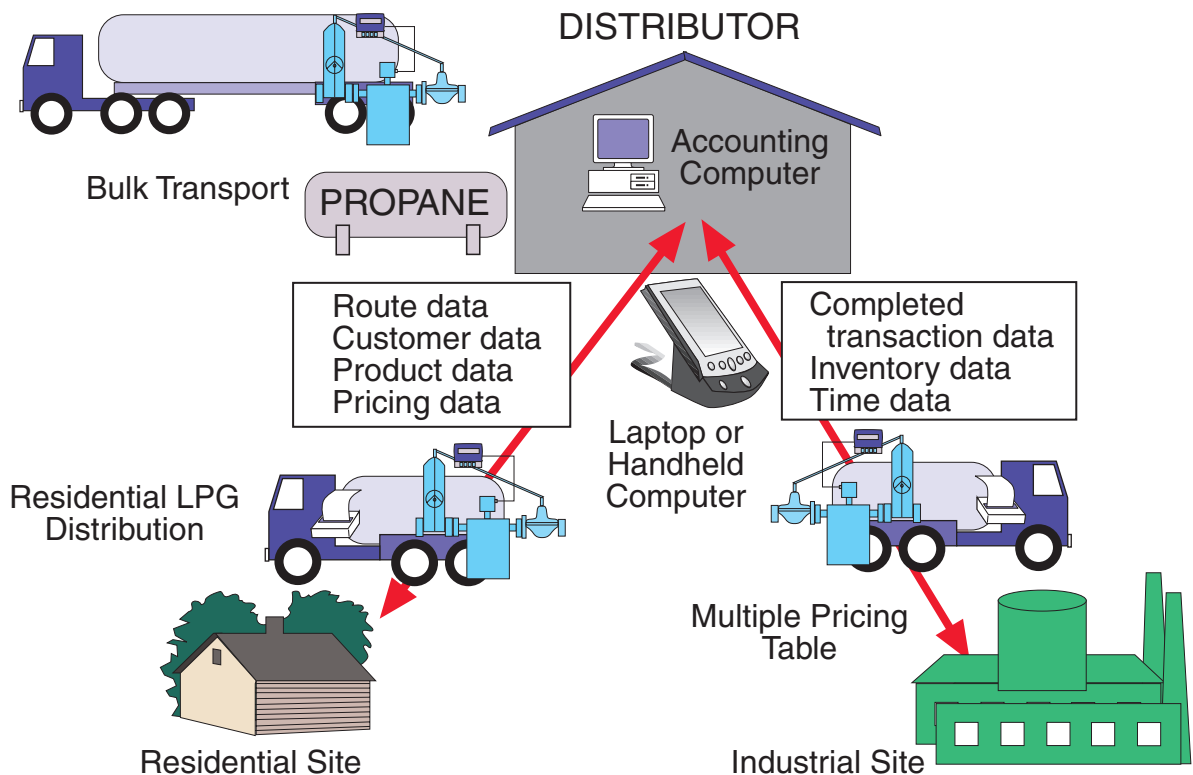
Easily Applied To Conventional Truck Installations

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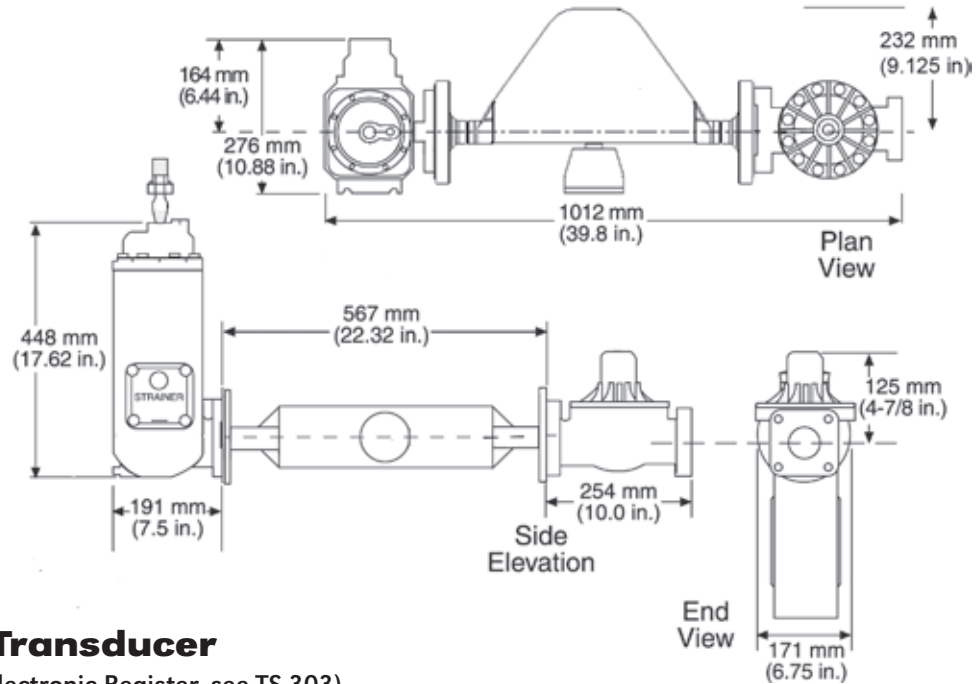
Dual Flow Tube Coriolis Technology For Stable Accuracy

A drive coil causes the tubes to vibrate. Fluid flow through the tubes causes them to twist. This twist, directly proportional to the mass flow rate of the fluid, is measured by two sensing coils. Electronics convert the resulting mass flow rate signal to volumetric flow for LP Gas delivery.



**Comprehensive Information Flow,
From Unloading Through Distribution**

**Coriolis
Mass Flow
Transducer
Dimensions**



**Specifications
Coriolis Mass Flow Transducer**

(For specifications on the E4000 Electronic Register, see TS-303)

PHYSICAL

Wetted parts	316L stainless steel
Sensor housing	304L stainless steel
Signal transmitter	CF-3M stainless steel
Weight (transducer only), kg (lb)	13 (28)
Line size, mm (in.)	51 (2)

PERFORMANCE

Approved volumetric flow rate, litres/min (gpm)	30–310 (8–82)
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ENVIRONMENTAL

Temperature range (E4000 Register) ¹ , °C (°F)	-30–55°C (-22–131°F)
Pressure rating, bar (psi)	24 (350)

APPROVALS

CSA (Canada & U.S.)	Class I, Div. 2, Groups A, B, C, and D (when properly connected to an Itron E4000 Electronic Register)
Weights and Measures	NTEP approval to Handbook 44 and NCWM Publication 14

¹There is no ambient temperature limit for the transducer.



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