ROMET ECM2 Electronically Corrected Meter

The Romet ECM2 Rotary Meter is a Positive Displacement Rotary meter with an Electronic Index that performs Dynamic Temperature Correction and Fixed Factor Pressure Correction. Pulse Output is standard.

ECM2 Specifications

Accuracy
- Typical Total Correction Error +/-0.2%
- Maximum Total Correction Error +/-0.3%

Electrical
- Power: Six year Lithium or Two year Alkaline
- Circuitry: Microprocessor, surface mount

Temperature
- Operating range: -40°F to +149°F
- Operating range: -40°C to +65°C
- Resolution: -0.1°F; 0.1°C
- Typical Error: +/- 0.3°C/0.5°F
- Maximum Error +/-0.7°C/1.0°F
- optional external temperature probe for retrofit with non-TC pressure body.

Output
- Form "A" pulse-type opto-isolated solid state (4 outputs): two corrected volume, one uncorrected volume and one alarm.
- Operating voltage: 3-30VDC Max.
- Current: 100mA Max.
- Power: 300mW Max.
- Pulse width: 50ms
- Connector: 6 Pin

Displays
- Parameter value: LCD, 7 segment, 8 character
- Parameter description: LCD, dot matrix, 16 character

Input
- High frequency solid state sensor (Wiegand effect)
Physical Characteristic (ECM2 module)

- Dimensions: 5.25” X 5.62” x 4.25”; 133mm x 143mm x 108mm
- Weight: 5.5 lbs; 2.5kg (including battery pack)

Safety

- Intrinsically safe in Class 1, Div 1, Group D environments
- CSA: LR59221-21
- UL : 29R1

Features

- Universally adaptable module
- Meter range ability increased to 200:1 or better with an error of less than +/- 1%
- Drag of the mechanical TC module is eliminated, producing start flows as low as 1 CFH or 0.03m3/h
- Large dual LCD’s show both the parameter value and corresponding description
- Six year expected Lithium battery life
- Two year expected Alkaline battery pack life
- Non-volatile EEPROM memory stores the last hourly volume indexes, setup parameters, calibration setting and access code in the event of a power loss
- Selectable, precise fixed pressure factor for PFM stations
- Separate battery compartment
- User friendly calibration mode permits quick accuracy checks and adjustments
- Flow rate can be readily displayed for differential testing
- Peak flow registration provides a check on meter sizing versus the gas load
- Total correction error of less than +/- 0.5%
- Year 2000 compliant

Options

- Pete’s Plugs installed on pressure taps
- Pete’s Plugs installed on Oil Fill and Drain
- Gasket Filter 20-100 mesh, installed on inlet of meter (60 Mesh recommended)
- Factory programming
- Pre-wired Pulse Output Cable
- Optional mechanical back-up register

Recommended Installation is in a Horizontal Line with Flow going right to Left or a Vertical Line with the Flow going downward. The rotary meter uses lobed impellers moving at high speeds to measure the gas. The measuring chamber is precision machined and there is minimal clearance between moving parts. As such, it is strongly recommended to install a gasket filter (60 Mesh) on the inlet of the meter to keep debris from entering the meter. Oil should not be filled until meter is in line. Where possible we recommend that a by-pass be installed to facilitate periodic meter calibration or other maintenance. See Installation guide for detailed instructions.