



ROOTS® Micro Corrector, Model IMC/C2 Enhanced, fully integral gas volume corrector with mechanical counter

Available in PTZ + Log, P + Log and T + Log versions



ROOTS® Meter with IMC/C2, Model PTZ + Log.

This second generation Micro Corrector has the enhancements customers have been asking for. Using the proven IMC/C platform, features were added that make it the easiest corrector to use. Functions were added that improve low flow measurement, enhance data logging, and lower operations and maintenance costs while retaining the great features introduced in the original IMC/C.

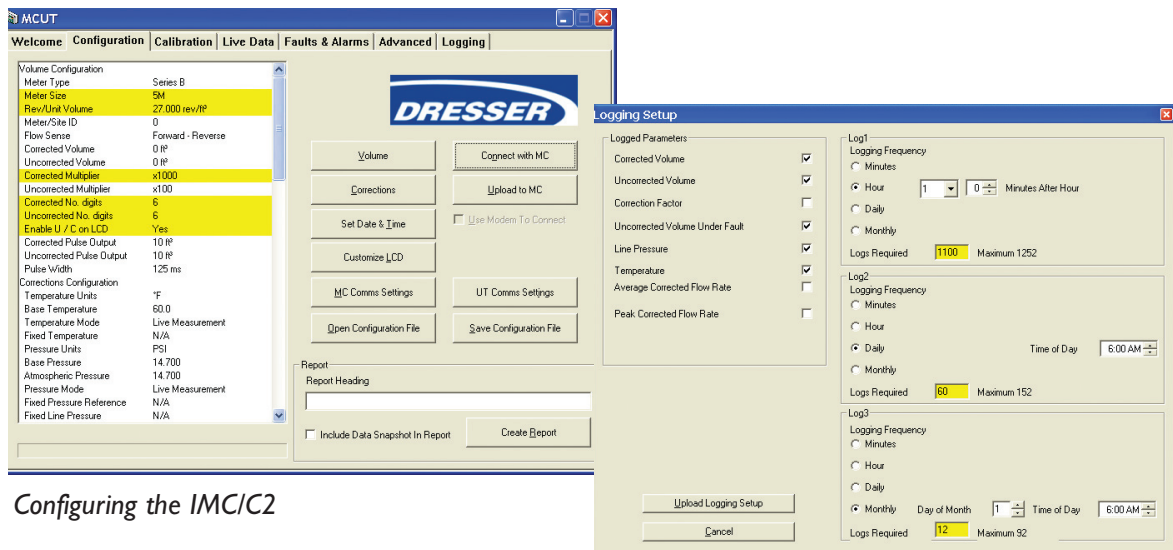
The ROOTS Micro Corrector, model IMC/C2, functions as a compact integral component of the rotary meter, rather than being an adaptation of a product that cannot take full advantage of the integration of meter and corrector. It's the only integral corrector rated for Division I hazardous locations.

Features include:

- **Rapidly Updating Flow Rate Display** aids meter differential testing in the field.
- **Fast Prove Mode** reduces meter and corrector test times by as much as 90%.
- **User Selectable Trim Table** improves low flow meter accuracy allowing the IMC/C2 to pay for itself.
- **Auto-Ranging Pressure Transducer** covers the entire range of the Series B 8C-16M ROOTS® meters and eliminates the need to stock correctors with different transducer ranges.

ROOTS Meters & Instruments

- **Simple User Terminal Software** allows for easy configuration, calibration and data downloads.



Configuring the IMC/C2

Downloading Data Logs

- **1 to 3 Data Logs** provide for years of historical information and are configurable in increments from 1 minute to 1 month.
 - **Audit Log** maintains a record of configuration and calibration changes.
 - **Alarms** notify the user of over-range conditions for pressure, temperature and flow rate.
 - **Alarm and Fault** activity is displayed in the Data Log and Audit Log reports.
 - **E²PROM** provides non-volatile storage of recorded data and corrector configuration, regardless of battery condition. This provides another level of data security in addition to the uncorrected mechanical counter.
 - **MS Excel[®]** Formatted Reports allow easy manipulation and sharing of information.
- These features provide compelling value that can add thousands of dollars annually to the bottom line!**



IMC/C2 Assembly 400.

PRODUCT
DATA

PERFORMANCE

Resolution:

Volume: 0.01 ft³ (0.01 m³)

Pressure: 0.01 psi (1 mbar)

Temperature: 0.1 °F (0.1 °C)

Supercompressibility (Fpv²): 0.0001

Correction Factor: 0.00001

**Accuracy -40 °F to 140 °F
(-40 °C to 60 °C):**

Pressure: ±0.25% reading

Temperature: ±0.9 °F (0.5 °C)

IMC/C2-PTZ: ±0.5% corrected volume

IMC/C2-P: ±0.35% corrected volume

IMC/C2-T: ±0.25% corrected volume

Long Term Stability:

Pressure: 0.1% FS/yr non-cumulative

Temperature: 0.3 °F (0.2 °C)/yr
non-cumulative

METER TRIM TABLE:

Meter flow correction: 0.3% to 10% Q_{max}

E²PROM DATA LOG MEMORY:

Time-stamped Entries: up to 3756
(depending on the number of
Parameters logged)

Parameters: Corr Vol, Uncorr Vol, Fault
Vol, P,T,Avg Rate, Peak Rate, Corr Factor

BATTERY:

Sealed Pack: 5-years nominal life

Low Battery Reserve: 2-months
minimum

INPUTS:

Volume: High speed Wiegand sensor on
volume input board

Pressure: Proprietary semiconductor
strain gauge

Temperature: ITS-90 Platinum 100Ω RTD
α=0.00385

LCD DISPLAY:

18 user selectable parameters

PULSE OUTPUTS:

Corrected, Uncorrected, and

Alarm & Fault:

Loop Voltage: 5-15 Vdc

Loop Current: 10 mA maximum

Pulse Width: 125, 187, or 312 mS

On/Off Resistance: <10_/> 10MΩ

Isolation: 2,500 Vdc

ENVIRONMENT:

Operating Temperature:

-40 °F to 140 °F (-40 °C to 60 °C)

Storage Temperature: -58 °F to 176 °F
(-50 °C to 80 °C)

Humidity: Up to 95% sustained outdoor
exposure

ENCLOSURE:

NEMA 4X (IP66)

DIMENSIONS:

See Dimensional Spec: DS: IMC/C

INTRINSIC SAFETY

(includes Sealed Battery Pack):

Class-I, Division-I, Group D:

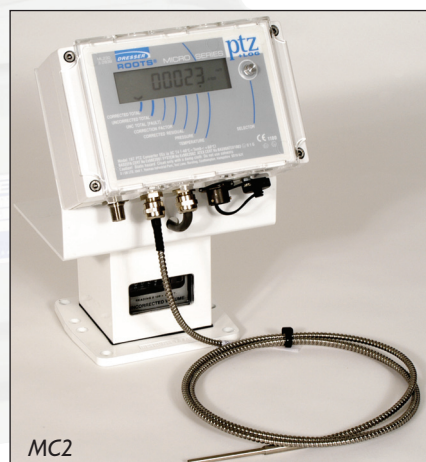
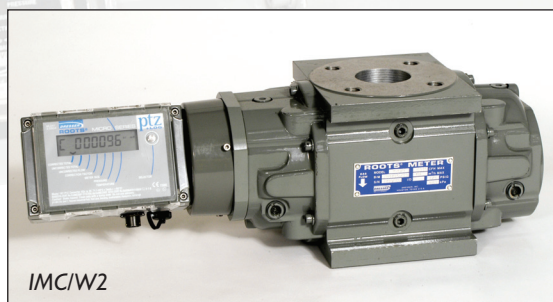
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60 °C

Class-I, Division-I, Group A, B, C, D:
BAS98ATEX 1083

Other:

ISO-9001

CE Mark



Other Available Micro Corrector Models

Ordering:

The IMC/C2 can be ordered as either:

- An integral part of a new meter.
- As a kit to convert existing ROOTS Series-B (TQM) meter sizes 8C through 16 M.
- Please specify meter size when ordering either a complete meter or a conversion kit.

For P and PTZ versions:

- One auto-ranging pressure transducer covers applications up through 175 PSI (12 bar). The range is extended up to 232 PSI (16 bar) for equivalent rated meters.
- Both gauge and absolute pressure transducers are available.
- The IMC/C2 can only be ordered with internal pressure and temperature connection.

A variety of pulse output connectors are available:

- One metal 6-pin Mil-Spec twist lock connectors.
- One plastic cable-gland connectors.

The IMC/C2 will be shipped with a factory standard configuration unless the customer specifies otherwise.

A Sealed Battery Pack is included and will provide a nominal 5-years of reliable corrector operation.

New users will want to order the User Terminal Software and one or more communication cables to allow local configuration, calibration, and data retrieval. The cables are available in 6, 25, and 50 ft. lengths.

Special cables are available for proving the meter and corrector with the ROOTS® Model-5 Transfer Prover.

Micro Modem

- Line-powered, no batteries required. No operation or maintenance costs.
- Plug & Play design, no set up required, reduces installation and start-up costs.
- Fully functional with all Micro Corrector models.
- Supports remote communications for meter reading, data retrieval, and corrector configuration.
- IP66 (NEMA 4X) metal housing.
- Wall mount, pole mount, or back of corrector mounting options.
- Pre-wired connecting cables are available.
- Includes internal intrinsic safety barriers allowing direct connection of the modem in the safe area to a Micro corrector located in a Class I, Division I, Group D hazardous area.



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