DRESSER
NATURAL GAS SOLUTIONS

Dresser Meters & Instruments

Dresser Micro Corrector
Model ptz + LOG

Dresser Micro Corrector - MC2

Model 197 PTz+ LOG

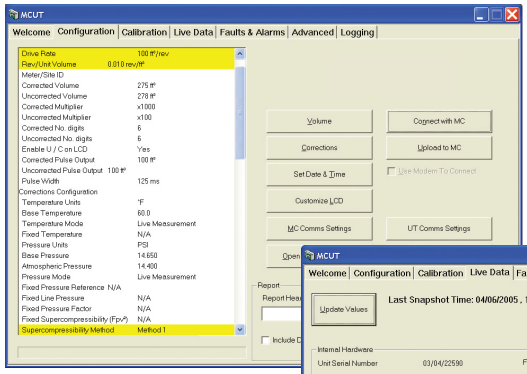
This second generation Micro Corrector (MC) takes the proven MC platform and adds features to enhance the user experience, functions that can deliver data logging, and lower operation and maintenance efficiencies, while retaining the features of the original product.

The Dresser Micro Corrector, Model MC2 197, functions as a wall mount corrector. As a wall mount model, the corrector also functions as an economical pressure and/or temperature recorder. The MC2 is rated for Division I hazardous locations by Canadian Standard Association (CSA).

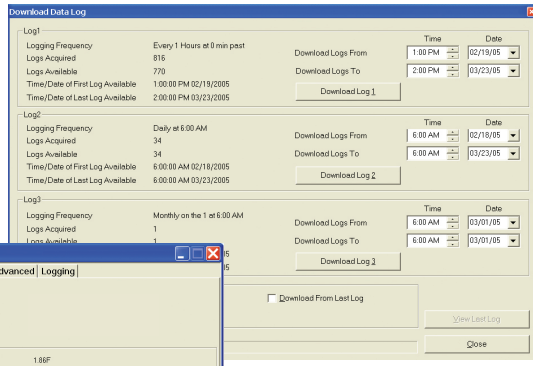
Wall Mounted Dresser Micro Corrector Model ptz + LOG

Features

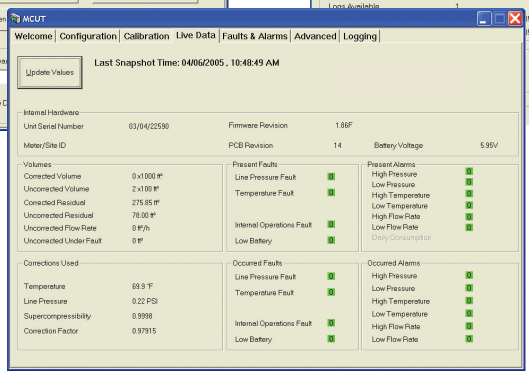
- 1 to 3 data logs provide years of historical information and are configurable in increments from 1 minute to 1 month
- Audit log maintains a record of configuration and calibration changes
- Available with your choice of lithium or alkaline sealed battery pack
- Alarm and fault activity is displayed in the data log and audit log reports
- E^2PROM provides non-volatile storage of recorded data and corrector configuration, regardless of battery condition



Configuring the MC2



Downloading data logs



Live data screen

- MS Excel® formatted reports allow manipulation and sharing of information
- Simple user terminal software allows for ease of configuration, calibration and data downloads
- Live data screen allows you to query the corrector either serially or via a modem to see the current conditions at the meter site, including a real time display of the corrector's battery pack voltage

Available Pressure Transducers

Micro Correctors fitted with pressure transducers are available with either gauge or absolute transducers in the following ranges:

Transducer Range	Gauge	Absolute
30 psi (2bar)	X	X
180 psi (12 bar)	X	X
350 psi (24 bar)	X	
1000 psi (70 bar)	X	X
1500 psi (100 bar)		X

Temperature Probes

Two different temperature probes are available, either of which can be fitted with a 5 or 10 foot long armored or non-armored cable. The smaller 2 inch probe can be installed in the differential tap of the rotary meter or in the pipe. For large diameter piping, an 8-1/4 inch probe is also available.

Resolution	
Volume	0.01 ft^3 or 0.01 m^3
Pressure	0.01 psi or 1 mbar
Temperature	0.1° F or 0.1 °C
Supercompressibility (Fpv^2)	0.0001
Correction Factor	0.00001
Accuracy over Operating Temperature Range	-40 °F to 140 °F (-40 °C to 60 °C)
Line Pressure	See Pressure Transducer Accuracy Reference Table
Line Temperature	0.9 °F or 0.5 °C
MC2-PTZ	0.5% corrected volume
MC2-P	0.45% corrected volume
MC2-T	0.25% corrected volume

Long Term Stability	
Pressure	0.1% FS/yr non-cumulative
Temperature	0.3 °F or 0.2 °C/yr non-cumulative

E2PROM Data Log Memory	
Time-stamped Entries	up to 32161 (depending on the number of Parameters logged)

Battery - Alkaline	
Sealed Pack - Alkaline	5-years nominal life
Low Battery Reserve - Alkaline	3-months approximately

Battery - Lithium	
Sealed Pack	15-years nominal life
Low Battery Reserve	1.5-years

Pressure Transducer Accuracy Reference Table

Pressure Transducer Range	Details
2 Bar (30 psi) A	MC maximum error of 0.4% of reading from 0.8 Bar A to 2.0 Bar A over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
2 Bar (30 psi) G	MC maximum error of 0.4% of reading from 0.8 Bar G to 2.0 Bar G over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
12 Bar (180 psi) A	MC maximum error of 0.4% of reading from 1 Bar A to 12 Bar A over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
12 Bar (180 psi) G	MC maximum error of 0.4% of reading from 1 Bar G to 12 Bar G over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
24 Bar (350 psi) G	MC maximum error of 0.4% of reading from 1 Bar G to 24 Bar G over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
30 Bar (430 psi) A	MC maximum error of 0.4% of reading from 5 Bar A to 30 Bar G over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
70 Bar (1000 psi) A	MC maximum error of 0.4% of reading from 5 Bar A to 70 Bar A over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
70 Bar (1000 psi) G	MC maximum error of 0.4% of reading from 5 Bar G to 70 Bar G over operating temperature range of -40ºF to 140°F (-40°C to +60°C)
100 Bar (1500 psi) A	MC maximum error of 0.4% of reading from 5 Bar A to 100 Bar A over operating temperature range of -40ºF to 140°F (-40°C to +60°C)

Inputs

Volume	
Volume	From a mechanical reed switch or Weigand, compatible with all Dresser low frequency pulsers.
Pressure	Proprietary semiconductor strain gauge
Temperature	ITS-90 Platinum 100Ω RTD = 0.00385

LCD Display
18 user selectable parameters

3 Fully Programmable Pulse Outputs

Corrected, Uncorrected, and Alarm/Fault	
Loop Voltage	5-15 VDC
Loop Current	10 mA maximum
Pulse Width	62.5, 125, 187, or 312 ms
Switch off Resistance	> 2 Mohms
Switch on Resistance	<10 ohms
Isolation	2,500 VDC

Environment	
Operating Temperature	-40 ºF to 140 ºF (-40 ºC to 60 ºC)
Storage Temperature	-58 ºF to 176 ºF (-50 ºC to 80 ºC)
Humidity	Up to 95% sustained outdoor exposure

Enclosure
Type 4 Enclosure

Intrinsic Safety	
Class 1, Division 1, Group D	CSA Approval No. 1224451

Electromagnetic/Radio Frequency Immunity	
FCC Class B	Meets EMI/RFI immunity at 10 V/m, 0.1 to 1,000 MHz EN50081-1 and EN5088-2

Other
ISO-9001

Battery Packs
Sealed Alkaline Pack - P/N 055362-000
Sealed Lithium Pack - P/N 060587-000

Ordering

- Optional piping kits are available for convenient connection of external pressure connections
- We offer piping kits with various lengths of stainless steel tubing and two different pressure ratings
- Wall or pipe mount

Pressure Piping Kits for Non-DP versions

	Approved for use to 350 psig G	Approved for use to 1480 psig G
Length of SS Tubing	Part Number	Part Number
32″	051416-320	051416-310
84″	051416-420	051416-410
120″	051416-520	051416-510

For P & T and T versions:

- Temperature probes are available with 5 foot or 10 foot long armored cables, and with 2 inch or 8-1/2 inch insertion lengths. These are also available with 3m or 6m non-armored cable for EU applications.
- Thermowells available in sizes 1/4-NPT x 2, 1-NPT x 2, 1-NPT x 4, and 1-NPT x 6. All dimensions are in inches.

A variety of pulse output connectors are available:
One metal 6-pin Mil-Spec twist lock connector.
One plastic cable-gland connector.

Circular

Conduit Plug

Cable Gland

EU Cable Gland

The MC2 will be shipped with a factory standard configuration.

Please consult your customer service representative for a copy of our customer configuration worksheet.

A sealed battery pack is included and will provide a nominal five years of reliable corrector operation.

New users may want to order the user terminal software and one or more communication cables to allow for local configuration, calibration, and data log retrieval. The cables are available in 6, 25, and 50 ft. lengths.

Communication Cables

PC (Serial) to Micro Corrector	
Length of Cable	Part Number
6.6′	057135-001
25′	057135-002
50′	057135-003
PC (USB) to Micro Corrector	
6.4′	060506-000

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