

Dresser Micro Corrector – IMC/W2

Integral Volume Correction Differential Pressure (DP) Monitoring

Versions: ptz-dp + LOG, T-dp + LOG, ptz + LOG, ptz + LOG, P + LOG, and T + LOG

Performance

Resolution	
Volume	0.01 ft ³ (0.01 m ³)
Pressure	0.01 psi (1 mbar)
Temperature	0.1°F (0.1°C)
Supercompressibility (Fpv ²)	0.0001
Correction Factor	0.00001
Differential Pressure	0.1 in. WC
Accuracy	
Accuracy over Operating Temperature Range	-40°F to 140°F (-40°C to 60°C)
Line Pressure	0.2% FS between min & max pressure
Line Temperature	0.9°F (0.5°C)
IMC/W2-PTZ	0.5% corrected volume
IMC/W2-P	0.45% corrected volume
IMC/W2-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 Accuracy Correction Range	0.3% to 10% Qmax
E ² PROM Data Log Memory	
Time-stamped Entries	Up to 32,161 (depending on the number of Parameters logged)
Parameters Logged	Corr Vol; Uncorr Vol; Fault Vol; Corr Factor; Supercomp; Avg and Peak Corr Flow Rate; 4 Pressures – Min, Max, Avg and Ending; 4 Temps – Min, Max, Avg and Ending; Batt Voltage; Differential pressure test results on units fitted with DP transducer
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
Inputs	
Volume	High speed magnetic pickup in meter magnet cup
Pressure	Proprietary semiconductor strain gauge
Temperature	ITS-90 Platinum 100Ω RTD = 0.00385

Three 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
Output Type	Form A
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)	
Intrinsic Safety	
Class 1, Division 1, Group D	CSA Approval No. 1224451
Zone 0	EEX ia IIC T4 Tamb = -40°C to 60°C
Class-I, Division-1, Group A, B, C, D	BAS98ATEX 1083
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, CE Mark	

Ordering Information

The IMC/W2 with or without DP can be ordered as either:

- An integral part of a new meter.
- As a kit to convert existing Dresser Series-A (LMMA), Series-B (TQM), or Romet meters.

For P and PTZ versions

The IMC/W2 is available in the following pressure transducer ranges:

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

Pressure Transducer Accuracy Reference Table

2 Bar (30 psi) A	MC maximum error of 0.2% FS of reading from 0.8 Bar A to 2.0 Bar A over operating temperature range of -40°F to 140°F (-40°C to +60°C)
2 Bar (30 psi) G	MC maximum error of 0.2% FS of reading from 0 Bar G to 2.0 Bar G over operating temperature range of -40°F to 140°F (-40°C to +60°C)
12 Bar (180 psi) A	MC maximum error of 0.2% FS of reading from 2 Bar A to 12 Bar A over operating temperature range of -40°F to 140°F (-40°C to +60°C)
12 Bar (180 psi) G	MC maximum error of 0.2% FS of reading from 2 Bar G to 12 Bar G over operating temperature range of -40°F to 140°F (-40°C to +60°C)
24 Bar (350 psi) G	MC maximum error of 0.2% FS of reading from 5 Bar G to 24 Bar G over operating temperature range of -40°F to 140°F (-40°C to +60°C)
30 Bar (430 psi) A	MC maximum error of 0.2% FS of reading from 5 Bar A to 30 Bar A over operating temperature range of -40°F to 140°F (-40°C to +60°C)
70 Bar (1000 psi) A	MC maximum error of 0.2% FS of reading from 5 Bar A to 70 Bar A over operating temperature range of -40°F to 140°F (-40°C to +60°C)
70 Bar (1000 psi) G	MC maximum error of 0.2% FS of reading from 5 Bar G to 70 Bar G over operating temperature range of -40°F to 140°F (-40°C to +60°C)
100 Bar (1500 psi) A	MC maximum error of 0.2% FS of reading from 5 Bar A to 100 Bar A over operating temperature range of -40°F to 140°F (-40°C to +60°C)

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- The 350 psi (24 bar), 1000 psi (70 bar), and 1500 psi (100 bar) transducers would typically be used for high pressure meter applications
- The IMC/W2 can be ordered with either an external or internal pressure connection
- IMC/W2's for Series-A meters, 23M – 56M high capacity meters, and high pressure meters require external pressure connections
- Optional piping kits are available for convenient connection of external pressure connections

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 IMC/W2-dp version, the following piping kits are available:

Length of SS Tubing	Part Number
36"	051416-600
36" with Pipe Plugs	051416-610
36" with Test Plugs	051416-620

Battery Packs

Sealed Alkaline Pack - P/N 055362-000

Sealed Lithium Pack - P/N 060587-000



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IMC/W2 Fact Sheet NGS.MI.0081

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