



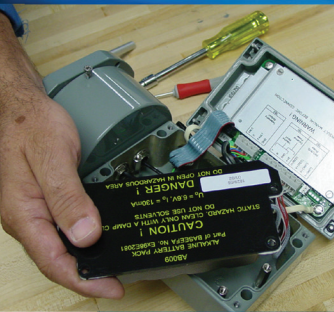
ROOTS® Micro Corrector, Model IMC/W-T, T + Log Integral Temperature Compensator with Data Logging Capability



ROOTS® Meter with Integral IMC/W-T

The ROOTS® Micro Corrector, Model IMC/W-T, is a combination of two proven Dresser products; the ROOTS® rotary positive displacement gas meter and the Micro Corrector. The IMC/W-T measures live temperature and allows the user to configure fixed factor pressure. The IMC/W-T also has the capability to sense forward and reverse flow and can be installed on either Series A (LMMA) or Series B ROOTS® meters. Another feature is instantaneous uncorrected flow rate visible on the LCD, which can be used for differential testing.

ROOTS Meters & Instruments



Logging

The IMC/W-T has storage capacity for 35 days of hourly logs, 48 days of daily logs and 15 months of monthly logs. Each log includes Compensated Total, Non-Compensated Total, Non-Compensated Total in a Fault Condition, Average Temperature and Corrected Peak Flow. The Audit Log saves the last 128-parameter changes made to the corrector during configuration.

Unit Hardware Features

The front panel has "easy to push" button scrolling capability which eliminates the need for magnets. Configurable alarms are included with auto dial out when connected to a modem. Fixed factor pressure can be configured in the unit. The IMC/W-T accessory unit can be rotated 355° - a feature that allows the LCD to be read easily in several different meter mounting positions. Temperature and volume are sensed internally. Additionally, the unit is available with your choice of either one or two pulse output connections with your choice of amphenol or cable gland connectors.

5+ Year Battery Life

New, low power electronics yield unprecedented battery life - in excess of 5 years. Low battery indication occurs with a minimum of 2 months remaining battery life. This means lower operating and maintenance costs, fewer battery disposal issues, and fewer batteries to purchase. The IMC/W-T has a backup battery which will allow the unit to continue to accumulate non-compensated counts for a period of up to one year in the case of main battery failure or during main battery replacement. During this period, the IMC/W-T will count and display non-compensated pulses from the meter.

After loading the user terminal software under Windows® 95 or higher, you get everything you need to directly communicate with and configure the IMC/W-T using your laptop or desktop PC. The software is easy to use and requires minimal training. One-click screen and data selection make configuration easy. The software includes built-in intelligence, so when you choose an incorrect parameter, the selection will be shaded in red, signalling you to stop and edit the chosen value.

Wide Range of Communication Capabilities

The IMC/W-T protocol has local and remote RS-232 communication capability and works with commercially available modems with Bell 212 A compatibility, that utilize the Hayes command set. Additionally, the unit has dual communication call out capability allowing appropriate personnel notification in the event of an alarm/fault condition. Dial out via our intrinsically safe, line powered Micro Modem is available. Pulse outputs for compensated and non-compensated volume and alarm/fault conditions are available. This allows you to easily adapt to your communications network or to provide a separate connection for your customer.

Total System Integrity

Both the data and the program are stored in non-volatile E² PROM memory. The robust all-weather enclosure is rated IP66 (NEMA 4X). Additionally, the unit has been thoroughly tested for EMI-RFI immunity and has CE marking. The IMC/W-T is certified as intrinsically safe. In the event a fault condition occurs, the display defaults to an error message. Password protection prevents unauthorized use.

Micro Modem

- Line powered, no batteries required therefore no running & no maintenance costs
- Plug & Play design, no set up required, reduced installation and start-up costs
- The Micro Modem supports the Micro Corrector & IMC/C and is therefore suitable for remote meter reading
- IP66 metal housing offers flexibility during installation

**PRODUCT
DATA**

Measurement Resolution:

Temperature: 0.1°C (0.1°F)

Accuracy over Full Temperature Range of -40°F to +140°F (-40°C to +60°C):

Temperature: +/- 0.9°F (0.5°C)

Battery Characteristics:

Factory supplied alkaline battery pack with life exceeding 5 years. Low battery indication occurs with at least 2 months remaining battery life. Inexpensive, intrinsically safe battery pack is easily changed on site. It is environmentally friendly – no special handling or disposal. A backup battery allows the unit to continue accumulating uncorrected counts for up to one year in the case of main battery failure, or during main battery replacement.

Physical Characteristics:

Operating Temperature:

-40°F to +140°F (-40°C to +60°C)

Ambient Humidity:

Up to 95% sustained outdoor exposure

Storage Temperature: -60°F to +180°F (-50°C to +80°C)

Approvals for Intrinsic Safety: Certified for EEx ia IICT4 Tamb = -40°C to +60°C, (zone 0) EECS Cert. No Ex 98E2082 ATEX BAS98ATEX 1083 (Class I, Div. I, Group A, B, C and D hazardous locations). CSA (Canadian Standards Association). Approval No. 1224451

Enclosure: IP66 (NEMA 4X)

EMC: EN50081-1 and EN 50082-2. Meets FCC class B requirements. EMI/RFI immunity at 10 V/m, 0.1 to 1000 MHz

CE Mark

Volume Input:

Volume sensed from magnetic pickup on meter - Wiegand sensor input to the IMC/W-T

Pulse Outputs (Telemetry Outputs):

5-15 VDC applied loop voltage

10 mA maximum current loop

Pulse width configurable to 125 msec,

187 msec and 312msec

Channels electrically isolated to 2500 VDC

Switch off resistance > 2 Mohms

Switch on resistance < 10 ohms

3 pulse outlets available:

Uncorrected Volume

Corrected Volume

Fault/Alarm/Intrusion Indication

Long Term Stability:

Temperature: 0.3°F (0.2°C) per year, non-cumulative

Power Requirements:

Operating Voltage: to 6.6 VDC

Operating Current: Typical 100 µA

Battery Lifetime: Minimum 5 years, typical configuration assuming live P and T measurements and Z calculation every 30 seconds, one 15 minute user terminal connection per week.

Ordering Information:

Select Meter Size: Series B: 8C, 11C, 15C, 2M, 3M, 5M, 7M, 11M, 16M, G16, G25, G40, G65, G100, G160, G250
Series A: 1.5M, 3M, 5M, 7M, 11M, 16M,

Select Meter Type: MA = Series A (LMMA)
B = Series B (TQM)
Note: The IMC/W for the Series A meter is available only as an Assembly #400

Select Units of Measure: IMP = Imperial
MTC = Metric

Select Units in which you would configure your fixed factor pressure:

Select No. of Amphenol Connectors:

Select Type of Pulse Output Connectors:

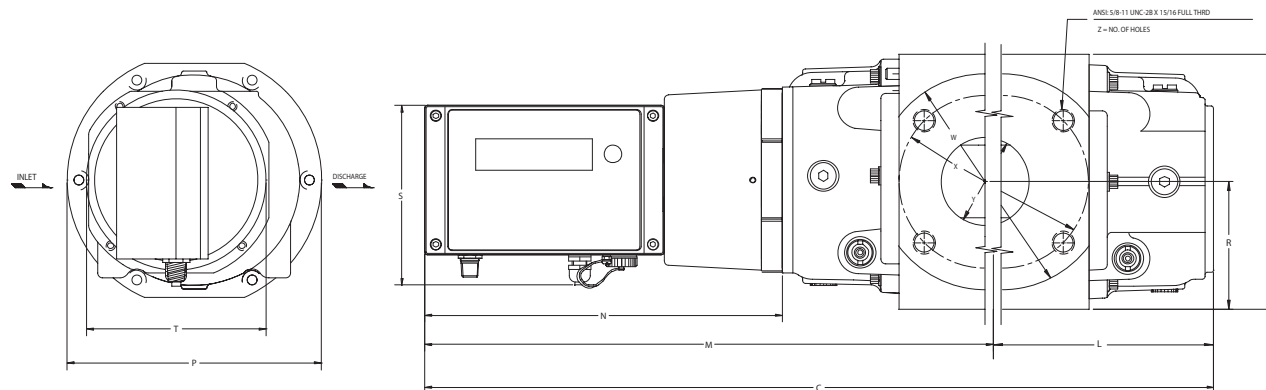
Select Base Temperature: F32 = 32°F Base Temperature
F60 = 60°F Base Temperature
C00 = 0°C Base Temperature
C15 = 15°C Base Temperature
C20 = 20°C Base Temperature

Optional Information:
1. Configure Base Pressure?
If yes - _____
2. Configure Atmospheric Pressure?
If yes - _____
Select Pressure Units:
PSI _____
Bar _____
kPa _____

Represents Series B 3M 175 ROOTS® meter, model IMC/W-T, with Imperial readout. Fixed factor pressure configured in gauge units, a single output connector and base temperature of 60°F (3M/B/IMP/G/S/F60)

ROOTS® Micro Corrector, Model IMC/W-T, T + Log

Integral Temperature Compensator with Data Logging Capability



Model	Capacity		Dimensions												
	Capacity	Unit	C	L	M	N	O	P	R	S	T	W	X	Y	Z
8C	800 cfh	in	19-1/4	4-11/16	14-9/16	9-1/2	6	6-3/4	3	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	22,6 m³/h	mm	489	119	370	241	153	172	76,5	119	121	153	120,65	57,5	4
11C	1100 cfh	in	19-3/4	4-15/16	14-13/16	9-1/2	6	6-3/4	3	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	31 m³/h	mm	502	126	376	241	153	172	76,5	119	121	153	120,65	57,5	4
15C	1500 cfh	in	20-11/16	5-13/32	15-9/32	9-1/2	6	6-3/4	3	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	42,5 m³/h	mm	525,5	138	388	241	153	172	76,5	119	121	153	120,65	57,5	4
G16	802 cfh	in	19-1/4	4-11/16	14-9/16	9-1/2	6	6-3/4	3	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	25,0 m³/h	mm	489	119	370	241	153	172	76,5	119	121	153	120,65	57,5	4
G25	1412 cfh	in	20-11/16	5-13/32	15-9/32	9-1/2	6	6-3/4	3	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	40,0 m³/h	mm	525,5	138	388	241	153	172	76,5	119	121	153	120,65	57,5	4
2M	2000 cfh	in	20-13/32	5-21/32	14-3/4	9-1/2	6-31/32	6-3/4	3-31/64	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	57,0 m³/h	mm	518	144	375	241	177	172	88,5	119	121	153	120,65	57,5	4
3M	3000 cfh	in	21-5/8	6-1/4	15-3/8	9-1/2	6-31/32	6-3/4	3-31/64	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	85,0 m³/h	mm	549	159	391	241	177	172	88,5	119	121	153	120,65	57,5	4
5M	5000 cfh	in	24-1/2	7-11/16	16-13/16	9-1/2	6-31/32	6-3/4	3-31/64	4-11/16	4-3/4	7-1/2	6	3-5/16	4
	141,5 m³/h	mm	622	195	427	241	177	172	88,5	119	121	190,5	152,4	84,14	4
G40	2295 cfh	in	20-13/32	5-21/32	14-3/4	9-1/2	6-31/32	6-3/4	3-31/64	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	65,0 m³/h	mm	518	144	375	241	177	172	88,5	119	121	153	120,65	57,5	4
G65	3531 cfh	in	21-5/8	6-1/4	15-3/8	9-1/2	6-31/32	6-3/4	3-31/64	4-11/16	4-3/4	6	4-3/4	2-1/4	4
	100,0 m³/h	mm	549	159	391	241	177	172	88,5	119	121	153	120,65	57,5	4
G100	5650 cfh	in	24-1/2	7-11/16	16-13/16	9-1/2	6-31/32	6-3/4	3-31/64	4-11/16	4-3/4	7-1/2	6	3-5/16	4
	160,0 m³/h	mm	622	195	427	241	177	172	88,5	119	121	190,5	152,4	84,14	4
7M	7,000 cfh	in	24-3/16	6-1/2	17-11/16	9-1/2	8-7/8	9-1/2	4-7/16	4-11/16	4-3/4	7-1/2	6	3-1/16	4
	200 m³/h	mm	614	165	449	241	225,4	241,3	112,7	119	121	190,5	152,4	77,8	4
G160-3"	8800 cfh	in	25-11/16	8-3/16	17-17/32	9-1/2	8-7/8	9-1/2	4-7/16	4-11/16	4-3/4	9	6	3-15/16	4
	250 m³/h	mm	653	208	445	241	225,4	241,3	112,7	119	121	228,6	152,4	84	4
G160-4"	8800 cfh	in	25-11/16	8-3/16	17-17/32	9-1/2	8-7/8	9-1/2	4-7/16	4-11/16	4-3/4	9	7-1/2	4-1/32	8
	250 m³/h	mm	653	208	445	241	225,4	241,3	112,7	119	121	228,6	190,5	102,4	8
11M	11,000 cfh	in	27-3/4	8-9/32	19-15/32	9-1/2	8-7/8	9-1/2	4-7/16	4-11/16	4-3/4	9	7-1/2	4-1/32	8
	310 m³/h	mm	705	211	495	241	225,4	241,3	112,7	119	121	228,6	190,5	102,4	8
16M	16,000 cfh	in	32-7/16	10-5/8	21-13/16	9-1/2	8-7/8	9-1/2	4-7/16	4-11/16	4-3/4	9	7-1/2	4-1/32	8
	450 m³/h	mm	824	270	554	241	225,4	241,3	112,7	119	121	228,6	190,5	102,4	8
G250	16,000 cfh	in	32-7/16	10-5/8	21-13/16	9-1/2	8-7/8	9-1/2	4-7/16	4-11/16	4-3/4	9	7-1/2	4-1/32	8
	450 m³/h	mm	824	270	554	241	225,4	241,3	112,7	119	121	228,6	190,5	102,4	8



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