PMT pressure SENSORS

Model DMC

Digital Meter / Controller

Description

The AMETEK Model DMC Digital Meter/Controller powered by 100 to 240 VAC will display data from transmitters, transducers, scales, and other process instruments. It provides 24 volt excitation, alarm relays, and analog or digital output for process control functions.

This compact unit comes with a 3/64 DIN case for convenient control panel mounting.

An optional desktop housing or a NEMA 4X weather-tight housing for field mounting is available. The weather-tight housing also provides internal mounting locations for lightning/surge protectors.

The microprocessor of the Model DMC makes setup quick and easy. Using the selectable input ranges for 0 to 20 mA, 4 to 20 mA, 1 to 5 V, and 0 to 10 V. Only the display LOW and HIGH values need to be entered to scale the meter.

Alternatively the autocalibration feature can be used. This function allows the user to setup the meter by applying known calibrated inputs. Only a LOW and HIGH input is required.

Setup can be done with two front panel keys or by using the optional infrared LED pen connected to a PC.

Other features include:

- Settable under-range and overrange limits that force the display to flash.
- An adjustable input filter for noise rejection.
- Selectable display resolution (count by 1, 2, 5, or 10).
- Three different settings, for the display update rate, SLOW, NORMAL, and FAST.
- Square root extraction for flow measurement with DP transmitters.

Features

- Large, easy-to-read 4 digit – 1999 to 9999 0.56 inch LED display
- Compact 3/64 DIN case, 0.94 inch x 2.83 inch
- NEMA 4 (IP65) front panel protected
- Optional NEMA 4X (IP65) or desktop housing
- CE rating (meter only)
- Selectable setup via 2 front keys or via a PC with optional Infrared LED pen
- No calculation scaling
- Tare for 2 wire scales
- Peak/valley display
- Two alarm relay outputs
- Optional isolated analog or RS232 printer output

Tel: 215-355-6900
www.ametekpmt.com

Model DMC Digital Meter / Controller

Specifications

Environmental

- **Warm Up Time:** 1 minute; except T/C 5 minutes
- **Operating:** -10° to 60°C
- **Storage Temperature:** -40° to 85°C
- **Humidity:** 0 to 90% non-condensing

Mechanical (Panel Meter)

- **Front Protection:** IP65/NEMA 4
- **Dimensions:** 3/64 DIN; 24 x 72 x 125 mm
- (0.94 x 2.83 x 4.92 inches)
- **Case Material:** Polycarbonate UL94V.2
- **Unit Weight:** 0.4 pound (200 g)
- **Shipping Weight:** 1 pound

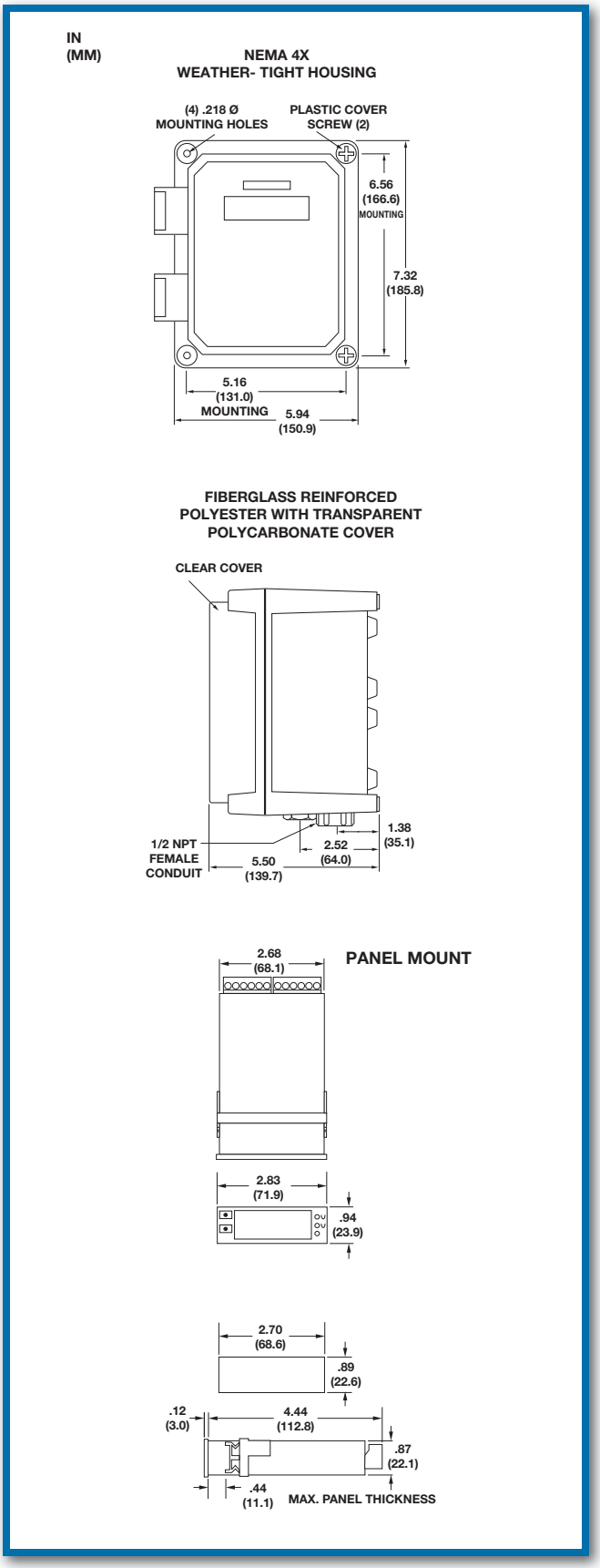
Conversion

- **Measuring System:** Continuous integration charge balancing converter
- **Internal Resolution:** 1 Part over 200,000
- **Conversion Time:** Settable at 200, 400, 800 msec.
- **Response Time for a Step Change:** 1.0 second to rated accuracy
- **Digital Filter:** Walking window mean value; select: slow, normal, or fast
- **N.M.R.R.:** 60 dB at 50 and 60 Hz (without digital filter)
- **C.M.R.R.:** >135 dB from input to supply

Electrical

- **AC Supply Voltage:**
  100 to 240 VAC at 47-70 Hz Nominal
  90 Minimum, 264 Maximum
- **Power Consumption:** 4 VA
- **Isolation:** >2500 Vrms
- **Excitation Supply:** 24 VDC ±5% at 30 mA maximum: short circuit protected
- **Relay Outputs:** Normally open; 250 VAC at 5A, 24 VDC at 1A
- **Volt Input:**
  Zero Drift: ±20 ppm/°C of full scale
  Span Drift: ±50 ppm/°C of range
  Input Impedance: >1 Mohm
  Input Current: <10 nA

Dimensions



Tel: 215-355-6900
www.ametekpmt.com

- **Current Input:**
  Zero Drift: ±40 ppm/°C of full scale
  Span Drift: ±70 ppm/°C of range
  Input Resistance: <20 ohm
- **Analog Output:**
  Current Source: 0 to 20 or 4 to 20 mA
  Load Resistance: 0 to 550 ohm
  Voltage: 0 to 10 VDC
  Output Impedance: 10 ohm
  Accuracy: Voltage and Current: ±0.1% of full scale
  Isolation: Voltage and Current: 500 Vrms
- **RS232 Serial Output:**
  Connection Type: Output only
  Voltage Level: V.24 compatible
  Baud Rate: 300, 600, 1200, 2400, 4800, 9600
  Isolation: 200 Vrms

	Measuring Range	Resolution	Accuracy/ Full Scale
Voltage	0 to 10 VDC	0.01%	±0.06%
	1 to 5 VDC	0.02%	±0.06%
	±1.0 V full scale	0.01%	±0.06%
	±10.0 V full scale	0.01%	±0.06%
Current	4 to 20 mA	0.01%	±0.08%
	0 to 20 mA	0.01%	±0.08%
	±1.0 mA	0.01%	±0.08%
	±22.0 mA full scale	0.01%	±0.08%

Model Numbering:

DMC Digital Meter / Controller

DMC Digital meter / controller

Meter Output

A Two relays
B Two relays, analog output
C Two relays, RS232 output
D Digital meter, no output

Housing

0 Panel-mount
1 NEMA 4X weather-tight housing
2 Bench-top housing

Analog Output

( ) in parentheses write the analog output and the analog output calibrated range

Transmitter

( ) in parentheses write the model number of the transmitter with which the meter is to be calibrated

DMC **B** **1** **( )** **( )**

Tel: 215-355-6900
www.ametekpmt.com

AMETEK®
PMT PRODUCTS
820 Pennsylvania Boulevard • Feasterville, PA 19053 • U.S.A.
Tel: 215-355-6900 • Fax: 215-354-1802 • www.ametekpmt.com