

DISPLAY PRODUCTS

BULLETIN DMC
PART #K796442

Model DMC Digital Meter/Controller

FEATURES

- ◆ Large, easy-to-read 4 digit -1999 to 9999 0.56" 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 and UL ratings*
- ◆ 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

*CE and UL ratings apply to the meter only and do not extend to other electrical components in the optional housings.



FOR USE WITH ALL AMETEK TWO WIRE 4/20 mA TRANSMITTERS

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 over-range 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.

EFFECTIVE: NEW

Model DMC Digital Meter/Controller

SPECIFICATIONS

ENVIRONMENTAL

WARM UP TIME

1 minute; except T/C 5 minutes

OPERATING TEMPERATURE

-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 $\pm 5\%$ 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/ $^{\circ}$ C of full scale

Span Drift: ± 50 ppm/ $^{\circ}$ C of range

Input Impedance: >1 Mohm

Input Current: <10 nA

CURRENT INPUT

Zero Drift: ± 40 ppm/ $^{\circ}$ C of full scale

Span Drift: ± 70 ppm/ $^{\circ}$ 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: $\pm 0.1\%$ of full scale

Isolation: Voltage and Current: 500 Vrms

RS232 SERIAL OUTPUT

Connection Type: Output only

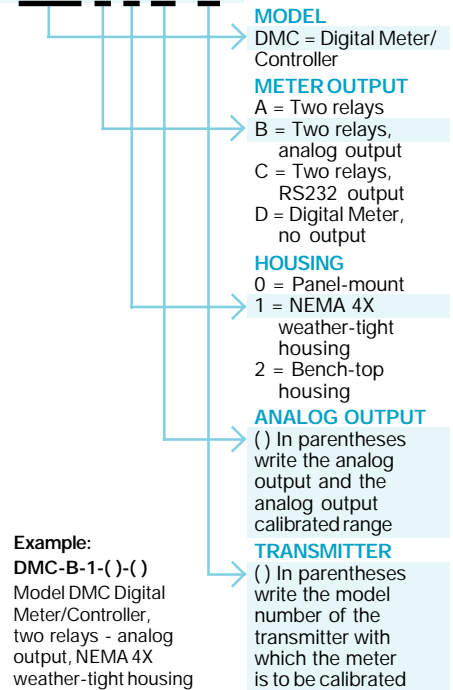
Voltage Level: V.24 compatible

Baud Rate: 300, 600, 1200, 2400, 4800, 9600

Isolation: 200 Vrms

MODEL NUMBER

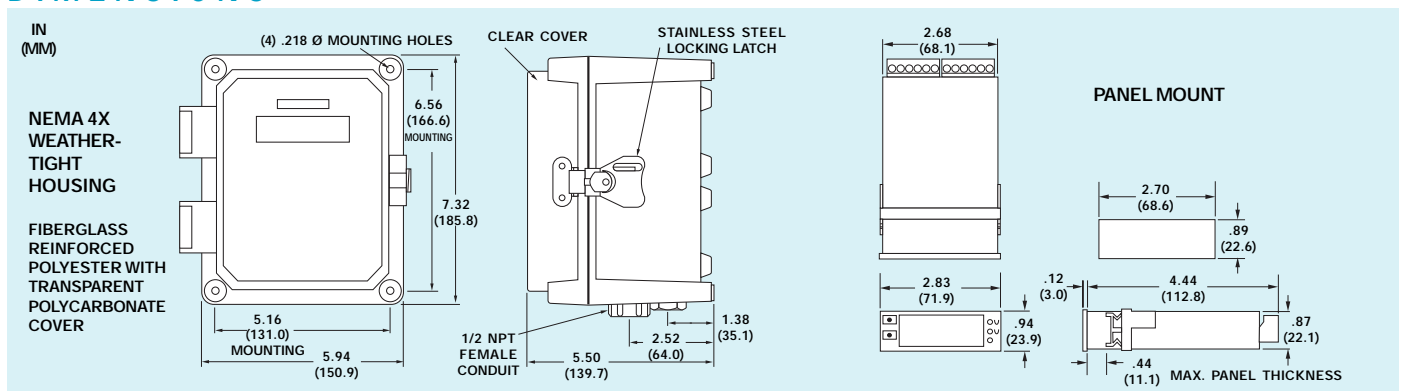
DMC-B-1-()-()



	MEASURING RANGE	RESOLUTION	ACCURACY/ FULL SCALE
VOLTAGE	0 to 10 VDC	0.01%	$\pm 0.06\%$
	1 to 5 VDC	0.02%	$\pm 0.06\%$
	± 1.0 V full scale	0.01%	$\pm 0.06\%$
	± 10.0 V full scale	0.01%	$\pm 0.06\%$
CURRENT	4 to 20 mA	0.01%	$\pm 0.08\%$
	0 to 20 mA	0.01%	$\pm 0.08\%$
	± 1.0 mA	0.01%	$\pm 0.08\%$
	± 22.0 mA full scale	0.01%	$\pm 0.08\%$

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

DIMENSIONS



AMETEK®

U.S. GAUGE • PMT PRODUCTS

820 PENNSYLVANIA BLVD., FEASTERVILLE, PENNSYLVANIA 19053 U.S.A.

TEL: (215) 355-6900 • FAX: (215) 355-2937 • www.ametekusg.com

ISO 9001 REGISTERED MANUFACTURER

© 1999, by AMETEK, Inc. All rights reserved.
5M799(110052)



Printed in the U.S.A.
on recycled paper