



# DM4051

## STRAIN GAUGE (BRIDGE) INPUT

### FIELD RANGEABLE ISOLATED TRANSMITTER

#### FEATURES

- Allows Inputs of 0.5mV/V to 128mV/V
- Provides a Fully Isolated DC Output Proportional to Strain Gauge Input
- Selectable Response Time / Filter
- Plug-In Terminal Blocks
- Connections and Ranging Readily Accessible from the Front
- User Write-On Label
- Fully Labeled Jumper Positions for Easy Range Settings
- User-Settable Input and Output Ranges
- Standard DIN-Rail Mount with Easy Snap-On Snap-Off
- Choice of Power Options
- Permanent Warranty

#### DESCRIPTION

The DM4051 provides an isolated voltage or current output proportional to a strain gauge (bridge) input.

The field rangeable product provides 10V excitation and has gold plated jumpers to select the following ranges and functions.

Input/Output Range  
Elevated or Suppressed Offset  
Bandwidth Range

Voltage or Current Output  
Normal or Reverse Acting Output  
Connections are made via two 4-pin plug-in terminal blocks. These terminal blocks allow the product to be removed without unwiring the connections.

#### TYPICAL APPLICATIONS

Measurement of output from load cells, pressure transmitters, and strain gauge sensors. Eliminates ground loops and common mode signals. Single-unit replacement module provides all normal input and output ranges.

#### SPECIFICATIONS

**INPUT IMPEDANCE** (User Settable)  
>5 megohms

**INPUT RANGE**  
0.5 mV/V to 128 mV/V

**EXCITATION**  
10 VDC, 35 mA max

**INPUT OFFSET**  
+ 0% to + 100% of span

**SPAN ADJUSTMENT**  
+5% to -55%  
of selected span

**ZERO ADJUSTMENT**  
+30% of selected span

**OUTPUT**

Voltage	Current (mA)
0/.25	0/1
0/1	0/4
1/5	4/20
0/5	0/20
0/10	
-5/+5	
-10/+10	

**OUTPUT LOGIC**  
Normal or Reverse Acting

**DRIVE CAPABILITY**  
Voltage  
5 mA max.

Current  
>24 V compliance

**OUTPUT RIPPLE** (Peak-to-Peak)  
<0.1% of full scale

**ISOLATION**  
Resistance  
>500 megohms  
Voltage Rating  
>1000 VAC rms sinewave

**RESPONSE TIME** (99%)  
0.02, 0.2, 2, 20 sec

**ACCURACY**  
±0.1% of span

**LINEARITY**  
+0.01% of span

**COMMON MODE REJECTION**  
>120 dB, DC to 60 Hz

**OPERATING TEMPERATURE**  
14°F to 140°F / -10°C to 60°C

**TEMPERATURE STABILITY**  
+ 0.01% of span per °C

**POWER**  
Standard  
115 VAC + 10%, 50/60 Hz  
230 VAC + 10%, 50/60 Hz

Optional  
115/230 VAC Selectable  
±10%, 50/60 Hz  
24 VAC + 10%, 50/60 Hz  
24 VDC (21 to 32 VDC)  
12 VDC (10 to 16 VDC)

Wattage  
2.5 W max

**ORDERING INFORMATION**

**POWER**

- 115 VAC, 50/60 Hz Power
- 230 VAC, 50/60 Hz Power
- 24 VAC, 50/60 Hz Power
- 24 VDC Power, Transformer Isolated
- 12 VDC Power, Transformer Isolated

**INPUT**

**Select Units**

- mV/V  mV

**Enter Input**

Zero Scale

Full Scale

**OUTPUT**

**Select Units**

- VDC  mADC

**Enter Output**

Zero Scale

Full Scale

**Select Output Logic**

- Normal Acting
- Reverse Acting

**OPTIONS**

- Conformal Coating

**TAGS**

**Specify Tag Number**

Tag number is typed on product label at no charge.

**Enter Tag Number(s)**

**ACCESSORIES**

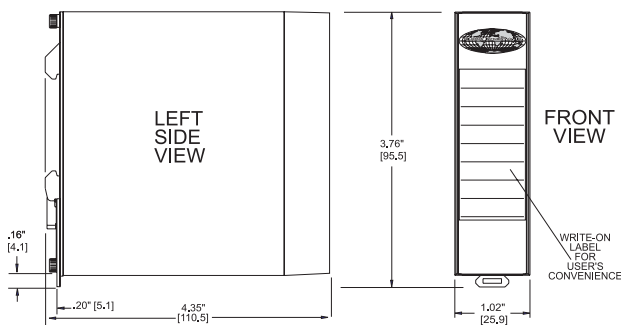
**DM4051**

DR1 DIN-Rail, 35 mm Symmetrical, 39 inches (1 meter)

QTY \_\_\_\_\_

**DIMENSIONS**

Inches [mm]



**CONNECTIONS**

- |               |                     |
|---------------|---------------------|
| TERM Input +  | Input +             |
| TERM Input -  | Input -             |
| TERM Exc. +   | Excitation +        |
| TERM Exc. -   | Excitation -        |
| TERM Output + | Output +            |
| TERM Output - | Output -            |
| TERM L1       | Power AC L1 or DC + |
| TERM L2       | Power AC L2 or DC - |



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