

POTENTIOMETER INPUT TO DC TRANSMITTERS

ISOLATED, FIELD RANGEABLE

Input: 100 ohms to 1 Megohm Potentiometers, 0 to 90% Offset
Output: 0-1 V to ± 10 Vdc, or 0 to 2 mA to 20 mADC

DMD4008

- ✓ Quick Setup for Hundreds of I/O Ranges
- ✓ External Switches and Table for Range Selection
- ✓ Removable Plugs for Fast Installation
- ✓ Full 1200V Input/Output Power Isolation
- ✓ Input and Output Tracking LEDs
- ✓ Functional Output Test Button
- ✓ Selectable Sink/Source for Current Output

Applications

- ✓ Over, Under, Out-of-Range Position Monitoring
- ✓ Remote Control of Positioning Devices
- ✓ Simplify Control of Potentiometer Outputs

The Trodex® DMD4008 accepts a resistance input from potentiometer, slidewire, linear position, displacement, or rotational devices and provides an optically isolated DC voltage or current output that is linearly related to the potentiometer position. It will accept any potentiometer with a value of 0 to 100 ohms through 0 to 1 Megohms without recalibration and without affecting accuracy. The DMD4008 output can be field configured via external rotary and slide switches, Offsets and/or input ranges other than 0 to 100% of the potentiometer range can also be selected.

SPECIFICATIONS

Potentiometer Input Ranges:

Field selectable ranges via switch settings 3 wire connection required

Minimum: 0 to 100 Ω

Maximum: 0 to 1 Megohms

Input Span: 10 to 100% of potentiometer range

Input Offset: 0 to 90% in 10% increments

Input Impedance:

10 Megohms minimum

Output Ranges:

Field selectable ranges via switch settings

Voltage: 0-1 V to 0-10 Vdc, 10 mA maximum

Bipolar Voltage: ± 5 Vdc or ± 10 Vdc

Current: 0-2 mADC to 0-20 mADC 20V compliance, 1000 Ω at 20 mA

Output Linearity:

Better than $\pm 0.1\%$ of span

Output Zero and Span:

Multi-turn potentiometers to compensate for load and lead variations, $\pm 15\%$ of span adjustment range typical.

Output Loop Supply Power:

20 Vdc nominal, regulated, 25 mADC maximum, ripple, less than 10mVrms may be selectively wired for sinking or sourcing mA output

Output Test: Front button sets output to test level when pressed, potentiometer adjustable 0 to 100% of span

Response Time: 70 milliseconds typical

Common Mode Rejection:

120 dB minimum

Isolation:

1200 Vrms minimum

Full Isolation: power to input, power to output, input to output

Ambient Temperature Range and Stability:

-10°C to 60 operating ambient; better than $\pm 0.02\%$ per °C stability

Standard Power: 60 to 265 Vac, 50/60 Hz or 85 to 300 Vdc, 2W maximum



DMD4008 shown actual size.

Low Voltage Option: 9 to 30 Vdc, or 10 to 32 Vac

Housing: Mounts to standard 35 mm DIN rail, IP40 environmental rating

Connectors: Four 4-terminal removable connectors 14 AWG maximum wire size

Dimensions:

22.5 W x 117 H x 122 mm D (0.89 x 4.62 x 4.81") height includes connectors

To Order

MODEL NO.	DESCRIPTION
DMD4008	Standard power input, potentiometer input to DC transmitters
DMD4008-DC	Low power input, potentiometer input to DC transmitters

ACCESSORIES

MODEL NO.	DESCRIPTION
DRTB-RAIL-3575	DIN rail, 35 mm x 7.5 mm (1.4 x 0.30") slotted, 2 m (6.6') length
DRTB-RAIL-3515	DIN rail, 35 mm x 15 mm (1.4 x 0.60") slotted, 2 m (6.6') length

Comes complete with operator's manual.

Ordering Example: DMD4008-DC, low power input, potentiometer input to DC transmitters, isolated, field configurable.