

# STRAIN AMPLIFIER/SIGNAL CONDITIONER MODULES FOR STRAIN GAGES, LOAD CELLS, AND TRANSDUCERS

## DMD-460 Series



Up to 2 kHz  
Dynamic Response  
DMD-465WB

- ✓ Bridge Excitation  
4 to 15 Vdc Up to 120 mA
- ✓ Works with 120, 350,  
500 Ω and Greater  
Bridge Circuits
- ✓ Adjustable Gain and Offset
- ✓ 6-Wire Bridge Connections
- ✓ Voltage and Current  
Output Versions
- ✓ 115 and 230 Vac, and  
DC-Powered Models



DMD-465, shown smaller than actual size.

The DMD-460 Series bridge amplifiers are self-contained, AC or DC-powered, signal conditioning modules for strain gages, load cells, and bridge-type sensors. The DMD-465 contains a precision differential instrumentation amplifier with voltage output. The similar DMD-465WB has a frequency response to 2 kHz, while the DMD-466 has a 4 to 20 mA output instead of a voltage output.

## SPECIFICATIONS

### Common

**Power:** Standard 115 Vac or optional 220 Vac  $\pm 10\%$  50/60 Hz or 10 to 36 Vdc 0.7 A @ 10V, 0.17 A @ 36V at maximum excitation load

**Operating Temperature:** 0 to 70°C (32 to 158°F)

**Storage Temperature:** -25 to 85°C (-13 to 185°F)

**Weight:** 510 g (18 oz)

**Size:** 96 L x 51 W x 73 mm H (3.75 x 2 x 2.87")

### Bridge Supply

**Excitation Voltage Range:** 4 to 15 Vdc

**Current Output:** 120 mA max

**Line and Load Regulation:** (0 to 100 mA) 0.05% max

**Output Noise:** 0.5 mVrms

### Voltage Output

**DMD-465 and DMD-465WB**

**Gain Range:** 40 to 250 (up to 1000 with external resistor on DMD-465 only)

### Dynamic Response:

**DMD-465:** DC to -3 dB = 3 Hz

**DMD-465WB:** DC to -3 dB = 2 kHz

**Max Output (2 kΩ Load):**  $\pm 10$  Vdc

**Output Impedance:** 0.01 to 1 Ω

**Output Offset:** -5 to 2V

(DMD-465WB only)

**Gain Temp Coefficient:** 200 ppm/°C

**Input Bias Current:** 30 nA

**Input Impedance:** 3000 MΩ

**Output Noise (RTO):** @ gain = 100

**DMD-465:** 120 μVrms

**DMD-465WB:** 1 Hz to 2 kHz = 2 mV

**Input Noise Line Frequency:** 15 μV p-p

**Common-Mode Rejection:** 90 dB @

gain 40, 100 dB @ gain 250

**Common-Mode Input Voltage:**  $\pm 15$ V

### 4 to 20 mA Transmitter DMD-466

**Output:** 4 to 20 mA, 0 to 20 mA

**Input Range for 20 mA Output:**

10 mV min, 50 mV max

**Zero Adjust:** 0 to  $\pm 12$  mA

**Linearity:**  $\pm 0.05\%$  FS

**Temperature Stability:** 200 ppm/°C

**Input Impedance:** 1000 MΩ

**Common-Mode Rejection:** 90 dB

**Common-Mode Input Voltage:**  $\pm 15$ V

**Compliance Voltage:** 10 Vdc

**Output Noise:** 1 μA rms @ gain

0.2 mA/mV, 1 to 100 Hz

**Dynamic Response:** DC to -3 dB = 3 Hz

**Response Time:** To 99% of final value

200 ms, typical; to 99.9% of final value

300 ms, typical

## To Order

MODEL NO.	DESCRIPTION
DMD-465	Voltage output
DMD-465-220V	220 Vac powered DMD-465
DMD-465WB	High-frequency voltage output
DMD-465WB-220V	220 Vac powered DMD-465WB
DMD-466	Current output (4 to 20 mA)
DMD-466-220V	220 Vac powered DMD-466
DMD-466-DC	10 to 36 Vdc powered DMD-466
POWER CORD-SE	Power cord with stripped end termination

Comes complete with operator's manual.

**Ordering Examples:** DMD-465WB, wide bandwidth amplifier/signal conditioner module with 115 Vac power.

DMD-466, amplifier/signal conditioner module with 4 to 20 mA output.