

# DCD 4059 EXCITER/DC TRANSMITTER FOR LOAD CELLS, SENSORS AND PRESSURE TRANSDUCERS

The DCD 4059 is a high-quality load cell excitation voltage generator coupled with a processor that receives, filters, normalizes and transmits an isolated DC voltage output for data recorders and other devices. It can handle four different load cells/bridges at the same time, making it a valuable exciter/transmitter for test applications involving many points of data collection. In contrast to an off-the-shelf, all-in-one strain or pressure gauge, this device is the controller behind any custom-designed measuring application you need that receives its input from load cells, strain sensors or pressure transducers. You select the correct sensor(s) for your application, and the DCD 4059 excites them and provides you with a clean output voltage for whatever purpose you need it for. It is a module designed for rack mounting with other modules to produce a large bank of processors. An example of an application for the DCD 4059 might be a manufacturing operation where constant monitoring of pressures through the entire production chain maintains machine adjustments, quality control and insures operational safety. Other applications include load cell weighing systems, or monitoring of extruder pressures or crane loads. Whether your operation requires one sensor or forty, you can install as many modules as your situation requires.

- **DRIVES UP TO FOUR 350 OHM BRIDGES**
- **ADJUSTABLE EXCITATION SUPPLY VOLTAGE TO EACH CELL**
- **ONE-MINUTE SET-UP FOR INPUT/OUTPUT RANGES**
- **LEAD (PB) DETECTION CIRCUITRY THAT AUTOMATICALLY COMPENSATES FOR RESISTANCE**
- **FULL-3-WAY INPUT/OUTPUT/POWER ISOLATION**
- **ADJUSTABLE OUTPUT TEST**
- **INTERNAL OR EXTERNAL CALIBRATION RESISTOR OPTIONS**
- **RACK MOUNTABLE, MODULAR DESIGN**
- **FIELD RANGEABLE, OR CAN BE PRESET BY FACTORY**

## SPECIFICATIONS

INPUT RANGE:	100-10,000 Ohm bridges at 10V
INPUT SENSITIVITY:	0.5-40 mV/V
INPUT IMPEDANCE:	200 k-Ohms typical
EXCITATION VOLTAGE RANGE:	0-10 V in 1 V increments
MAXIMUM EXCITATION VOLTAGE:	10 VDC at 120 mA
OUTPUT RANGE:	0-1 to $\pm 10$ V VDC (10 mA max) 0-2 mA to 4-20 mA
RESPONSE TIME:	70 milliseconds typical (at 14.2 Hz)
ISOLATION:	Full isolation; 1200 V (RMS) minimum
POWER SUPPLY:	60-265 VAC, 50/60 Hz, or 85-300 VDC

DCD 4059



## ORDERING INFORMATION

DCD4059	Exciter/Transmitter (60-265 VAC, or 60-300 VDC)
DCD4059-D (low V version)	Exciter/Transmitter (10-32 VAC, or 9-30 VDC)

\* Either model is field rangeable by means of switches.  
For factory configuration, please specify desired mV/V and output range desired

Options (add to end of model number)

- MO1	Built in calibration resistor; specify resistor value
- M02	Switch for internal calibration resistor
- DF	10 millisecond response time
- U	Conformal coating for moisture resistance