# DMC-D2 Series
# Dual Channel DC LVDT Controller


## Standard Features

- 120-220 VAC operation
- 0-10 VDC analog output
- RS-232 serial output
- Four 5.0A relays
- Four independently programmable set points
- Supports all standard LVDTs
- Utility software for meter configuration

## Options

- Dual 0-10 VDC analog outputs
- 4-20 mA or 0-20 mA sourcing
- 24 VDC operation
- Ethernet

## Description

The DMC-D2 Series DC LVDT Controller is an accurate, high performance, programmable dual channel controller that delivers precise measurement and control for applications using DC LVDT (Linear Variable Differential Transformer) inputs. The 6-digit alphanumeric LED display provides easy to follow setup prompts for all DC LVDT parameters using the intuitive scrolling text configuration menus.

Used in conjunction with DC LVDTs, DMC-D2 Series Controllers make up a comprehensive, reliable, measurement system. The combination can be applied to a wide variety of demanding measurement applications, such as in process gaging in automated assembly machinery, differential measurements in thickness gaging, and other comparative measurements. Utilize the controller's PLC capabilities in conjunction with the standard relays and you have an economical solution when you need control functions for comparative and direct measurements in smaller automated systems.

The DMC-D2 Series Dual Channel DC LVDT Controller is designed to be upgradeable for expansion of capabilities. You can order the controller with the standard features and if at a later time you wish to add an option like Ethernet, to add communication to data acquisition software, it can be done at the factory.

The DC LVDT input module of the DMC-D2 Series DC LVDT Indicator is designed to drive the signals for two DC LVDT transducers. The module contains two high-speed micro controllers and a 16-bit dual channel A/D converter. It communicates with the selected controller internally via the .2C data bus. Scrolling text menus provide quick access to a range of configuration modes for easy DC LVDT application setup.

If your requirements call for only a single sensor, we also offer the DMI-D1 Single Channel DC LVDT Indicator.

## Specifications

### General

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|---|---|
| **Digital Display:** | Alphanumeric, 6 digit 0.56" (14.2 mm) LEDs |
| **Display Color:** | Red |
| **Display Range:** | -19999 to 99999 |
| **Display Update Rate:** | 10 times per second |
| **Display Dimming:** | 8 brightness levels. Front panel selectable |
| **Polarity:** | Assumed positive. Displays – negative |
| **Annunciators:** | 6 red LEDs on front panel |
| **Front Panel Controls:** | PROGRAM, UP, and DOWN buttons |
| **Power Supplies:** | Standard high voltage AC / DC power supply 85-265 VAC / 95-370 V DC, or optional low voltage AC / DC power supply 18-48 VAC/ 10-72 V DC |

### Environmental

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|---|---|
| **Operating Temp:** | 0 to 50°C (32°F to 122°F) |
| **Storage Temp:** | -20°C to 70°C (-4°F to158°F) |
| **Relative Humidity:** | 95% (non-condensing) at 40°C (104°F) |

### Mechanical

| | |
|---|---|
| **Case Dimensions:** | 1/8 DIN, 96x48 mm (3.78" x 1.89") |
| **Case Depth:** | 137 mm maximum (5.39") |
| **Case Material:** | 94V-0 UL rated self-extinguishing polycarbonate |
| **Weight:** | 11.5 oz (0.79 lbs.), 14 oz. (0.96 lbs.) when packed |

### Approvals

| | |
|---|---|
| **CE:** | As per EN-61000-3/4/6 and EN-61010-1 |

### LVDT Input Module

| | |
|---|---|
| **Excitation Voltage:** | 24 V DC. |
| **Temperature Coefficient:** | ± 50 ppm/ °C of full scale (typ.) |
| **LVDT Input:** | 1M input impedance. |
| **Analog to Digital:** | Dual scope 17 bipolar converter. |
| **Output Rate:** | 10 Hz averaged response output. |
| **Line Frequency Rejection:** | 50 or 60 Hz noise rejection. |

### Relay Output Modules

Plug into carrier board from rear:

| | |
|---|---|
| **Four Relay Module:** | Four 5 A Form A Relays* |
| ***Form A Relay Specifications:** | 5 A 240 V AC, 4 A 24 VDC Isolation 3000 V. UL and CSA listed. |

## Ordering Information

Optional power, analog output, communication and calibration configuration suffixes

- -8xx standard base model
- -2xx for operating on 24 V DC
- -x2x 0-10VDC Dual analog output
- -x3x for 4-20 mA output
- -xx2 for Ethernet communications
- System Calibration (call for details)

Example: DMC-D2-202 is equipped with the following: 1. -2xx 24 V DC Operation; 2. -xx2 Ethernet Communication

For specifications on other Macro Sensors LVDT signal conditioners, please visit our website at www.macrosensors.com.

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