



TIGER FAMILY



- 6-digit, 0.56" (14.2 mm) Alphanumeric Display
- 1/8 DIN Case
- 3-button Front Panel Operation
- Intuitive Scrolling Text Configuration Menus

TEXMATE

LVDT-200

Dual LVDT Controllers Positioning & Displacement

Optimize performance and linearity. Select the correct frequency for your sensor

Introduction

The LVDT-200 Series are accurate, high performance, programmable dual channel controllers that deliver precise measurement and control for applications using LVDT (Linear Variable Differential Transformer) inputs.

The 6-digit alphanumeric LED display provides easy to follow setup prompts for all LVDT parameters using the following intuitive scrolling text configuration menus.

Input setup mode

- 50 or 60 Hz supply frequency.
- Excitation frequencies:
 - 50 Hz:** 1.2, 1.6, 2.4, 3.2, 4.8, 6.4, 8.0, 9.6 kHz excitation.
 - 60 Hz:** 1.44, 1.92, 2.88, 3.84, 5.76, 7.68, 9.60, 11.52 kHz excitation.
- Update rates: 1, 4, 10, or 20 readings per second.
- Independent decimal point position setting for each channel display with resolution to 0.00001 of any engineering unit.

Calibration mode

- Independent calibration for each channel:
 - Auto Calibration:** 2-point zero and span setting.
 - Offset Trim:** Independently trim the zero setting or enter an offset value.
 - Span Trim:** Independently trim the span setting.

Analog output mode

- Zero setting.
- Full scale setting.

Setpoints mode

- Four independently configured setpoints with above and below setpoint value actuation.

Relay

Standard : Four 4 amp relays.

Analog Output

Standard: Fully scalable from 0/4 to 20 mA (or reverse).

Options: Single 0 to 10 V DC (or reverse) or dual 10–0–10 V DC.

Advanced Functions

A range of built-in measurement and control functions are available with the LVDT-200 Series controllers' resident operating system that can also be programmed from the front panel. These include:

- **Linearization.** Up to four 32-point flexible linearization tables or a single 125-point flexible table.
- **Serial Communications.** Optional single ASCII or Ethernet (TCP/IP) outputs.
- **Differential Measurement.** Differential measurement and cross channel maths available (A+B, A–B, AxB, A/B).

Specifications

General

Digital Display: 14-segment alphanumeric, 0.56" (14.2 mm) LEDs.
Display Color: Red (standard), Green or Super-bright Red (optional).

Display Range: -199999 to 999999.

Display Update Rate: 1, 4, 10, or 20 times per second.

Display Dimming: 8 brightness levels. Front panel selectable.

Scrolling Display Text Messaging: Full alphanumeric text characters supported.

Polarity: Assumed positive. Displays – negative.

Annunciators: 6 red LEDs on front panel; one per setpoint.

Overrange Indication: **OVER**

Underrange Indication: **UNDER**

Front Panel Controls: PROGRAM, UP and DOWN buttons.

Power Supplies. Standard high voltage AC / DC power supply 85-265 V AC / 95-300 V DC, 50-400Hz, 2W nominal. or optional low voltage AC / DC power supply 14-48 V AC / 10-72 V DC.

Environmental

Operating Temperature: 0 to 50 °C (32 °F to 122 °F).

Storage Temperature: -20 °C to 70 °C (-4 °F to 158 °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

UL: E469078

Input Module ISL1

Excitation Voltage: 3 V RMS sine wave, zero DC component THD <2% (1.2 kHz).

Excitation Frequency: x 16 selectable frequencies available (1.2 kHz to 11.5 kHz). Crystal locked, software driven.

Temperature Coefficient: ± 50 ppm/°C of full scale (typical).

Dual LVDT Inputs: 30 kΩ input impedance. Synchronous demodulation of excitation carrier. >130 db rejection of excitation carrier.

Frequency Response: 500 Hz (–3 db) low-pass filter.

Analog to Digital: Dual channel ΣΔ A/D convertor approaching 19-bit resolution. Ratiometric operation relative to excitation voltage magnitude.

Dual Output Rates: Rapid and average response outputs. 1 Hz, 2 Hz, 10 Hz, 20 Hz averaged.

Line Frequency Rejection: 50 / 60 Hz noise rejection.

Relay Output Modules

Please see Page 11.