

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

## Dual Inputs LVDT Controller

- 1/8 DIN case, maximum depth 137 mm
- 3-button front panel operation
- 6-digit, 0.56" (14.2 mm) alphanumeric display
- Display range: -199999 to 999999 display counts

The LVDT200 is an accurate, high performance, programmable dual channel controller that delivers precise measurement and control for applications using Linear Variable Differential Transformer – LVDT – inputs.

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

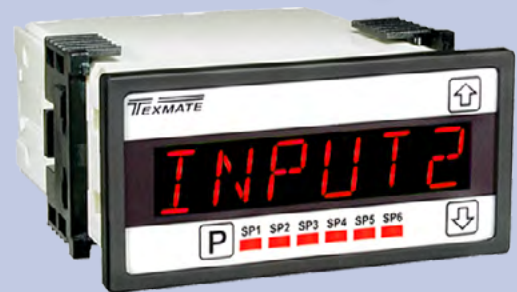


## Features

- Selectable frequencies to suit your sensor.
- Selectable update rates from 1 to 20 readings per second.
- Independent decimal point position for each channel with 0.00001 resolution.
- 2-point auto calibration (zero and span).
- Offset trim and span trim settings.
- Auto-sensing high voltage 85-265 V AC / 95-370 V DC power supply, or optional low voltage 15-48 V AC / 10-72 V DC.
- 3 V rms sensor excitation.
- 4-20 mA analog output with scaling (low and high settings) through configuration menu.
- Six independently programmable setpoints.
- Up to four relay outputs with multiple relay combination options.

# LVDT-200

## Dual Inputs Controller for Displacement & Positioning



## Options



- **Relays**  
**Standard:** Two 9A SPDT Rslays.  
**Options:** Four 4A/SPST or combination of four 2-4A/SPST and 2-9A/SPDT.
- **Analog Output**  
**Standard:** Fully scalable from 0/4 to 20 mA.  
**Options:** Single 0 to 10 V DC.

## Advanced Functions

A range of built-in measurement and control functions, that can also be programmed from the front panel or a PC, are available with the LVDT200 controller's resident Tiger 320 operating system. These include:

- **Advanced Setpoints.** 4 programmable setpoints with advanced multiple timer modes, hysteresis, deviation, PID, setpoint tracking, and register reset functions.
- **Totalizers.** Dual totalizers with independent reset and scaling.
- **Linearization.** Up to four 32-point flexible linearization tables or a single 125-point flexible table.
- **Data Logging.** Optional data logging of up to 4000 samples with real-time clock.
- **Serial Communications**  
**Options:** Single ASCII or Modbus RS-232 or RS-485, Ethernet (TCP/IP), direct serial output to printer.
- **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. **OVER** **UNDER**
- Polarity:** Assumed positive. Displays - negative.
- Annunciators:** 6 red LEDs on front panel; one per setpoint.
- Overrange Indication:**
- Underrange Indication:**
- Front Panel Controls:** PROGRAM, UP and DOWN buttons.
- Power Supplies.** Standard high voltage AC / DC power supply 85-265 V AC / 95-370 V DC, or optional low voltage AC / DC power supply 15-48 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

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

### 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  $\Sigma\Delta$  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, 40 Hz averaged.
- Line Frequency Rejection:** 50 / 60 Hz noise rejection.
- High-speed Control Outputs:** Dual high speed open collector transistor outputs 600 mA maximum under setpoint control (SP5 & SP6).

### Relay Output Modules

Plug into carrier board from rear:

- Four Relay Module:** Available in six combinations from one relay up to a total of two 9 A Form C Relays\* and two 4 A Form A Relays\*\*.
- Four Relay Module:** Available with one to four 5 A Form A Relays\*\*.

\***Form C Relay Specifications:** 9 A 240 VAC~1/2 HP, 8 A 24 VDC. Isolation 3000 V. UL and CSA listed.

\*\***Form A Relay Specifications:** 4 A 240 VAC, 4 A 24 VDC. Isolation 3000 V. UL and CSA listed.

## Dual LVDT Input Controller

### Configuration Menus Logic Tree



Operational Display

#### [P] [ ] [ ] [ ] INPUT SETUP]

4 secs

Takes you into Input Setup mode and provides selection for:

- Supply frequency: 50 or 60 Hz.
- One of eight excitation settings for either 50 or 60 Hz.
- One of four output rates.
- Independent decimal point position for channels 1 and 2.

#### [P] [ ] [ ] [ ] SELECT CALIBRATION CHANNEL]

Takes you into Calibration mode and provides selection for:

- Either channel 1 or channel 2 for calibration.
- 2-point auto calibration for zero and span.
- Manual trim for zero and zero offset.
- Manual trim for span.
- Manual zero window limit.

#### [P] [ ] [ ] [ ] SELECT ANALOG OUTPUT]

Takes you into Analog Output Scaling mode and provides:

A menu that allows you to set zero and full scale analog output calibration settings.

#### [P] [ ] [ ] [ ] SELECT SETPOINTS]

Takes you into Setpoint mode and provides:

- Selection of individual setpoints SP1 to SP6.
- Setting of individual setpoint source.
- Setting of individual setpoint activation value.
- Setting of individual setpoint activation ABOVE or BELOW.

## LVDTs ..... endless applications

### Aviation



### Petrochemical



### Mining



### Oil Exploration



### Aerospace



### Marine



### Power Generation



### Motorsport



For all your LVDT product details visit:

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