

## Optimize performance and linearity .....

Select the correct frequency for your sensor

### Dual Input 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 18-48 V AC / 10-72 V DC.
- 3 V rms sensor excitation.
- 4-20 mA analog output.
- Analog output scaling (low and high settings) through configuration menu.
- Six independently programmable setpoints.
- Up to six relay outputs with multiple relay combination options.



### Options

- **Relays**  
**Standard:** Two on-board 600 mA high speed SSR outputs.  
**Options:** Up to four additional 5 and 10 amp relay combinations, or four SSR outputs for SSR control.
- **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, 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.** Six 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), DeviceNet, direct serial output to printer.
- **Differential Measurement.** Differential measurement and cross channel maths available (A+B, A-B, Ax B, 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 / 95-370 V DC, or optional low voltage AC / DC power supply 18-48 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 ΣΔ A/D converter 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 10 A Form C Relays\* and two 5 A Form A Relays\*\*.
- Four Relay Module:** Available with one to four 5 A Form A Relays\*\*.  
\*Form C Relay Specifications: 10 A 240 VAC-1/2 HP, 8 A 24 VDC. Isolation 3000 V. UL and CSA listed.  
\*\*Form A Relay Specifications: 5 A 240 VAC, 4 A 24 VDC. Isolation 3000 V. UL and CSA listed.
- Four Solid State Relay (SSR) Module:** Available with one to four independent (210 mA DC only) or (140 mA AC/DC) SSRs (400 V max).

## WARRANTY

Texmate warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from date of shipment. Texmate's obligations under this warranty are limited to replacement or repair, at its option, at its factory, of any of the products which shall, within the applicable period after shipment, be returned to Texmate's facility, transportation charges pre-paid, and which are, after examination, disclosed to the satisfaction of Texmate to be thus defective. The warranty shall not apply to any equipment which shall have been repaired or altered, except by Texmate, or which shall have been subjected to misuse, negligence, or accident. In no case shall Texmate's liability exceed the original purchase price. The aforementioned provisions do not extend the original warranty period of any product which has been either repaired or replaced by Texmate.

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## 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.

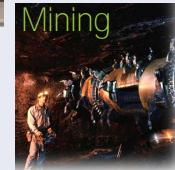
#### [P] [ ] SELECT SETPOINTS

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



### Oil Exploration



### Aerospace



### Marine



### Motorsport

For all your LVDT product details visit:

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