

DAYTRONIC

QUALITY, TRUSTED PRODUCTS SINCE 1954

3730

AC LVDT PANEL INSTRUMENT



DIGITAL PANEL INSTRUMENT WITH ANALOG SIGNAL CONDITIONING AND CONTROLS. THE 3730 IS BASED ON YEARS OF FIELD PROVEN PERFORMANCE OF THE SERIES 3000 METERS.

Incorporating the Series 3000 performance along with updated controls and ease of use features, the Model **3730** AC LVDT Panel Instrument interfaces with most manufacturer's AC LVDT sensors to deliver stable - repeatable and accurate results with a digital display and a dynamic, selectable hi-level analog output signal for front end use with a PLC, Computer or Data Acquisition system. The 3730 incorporates setup controls and adjustments behind the front panel - for the user to configure the meter for any range of AC LVDT sensor - Excitation Frequency, Gain, Zero, Analog Filter settings, Voltage Outputs of ± 5 VDC or ± 10 VDC, and 4-20 mA output, Display trimming, Phase and Symmetry. The 3730, with its stable display and selectable amplified signal, includes an independent - high speed analog signal for dynamic applications.

- True Analog Operation using Phase-Sensitive carrier amplifier design
- Null and TARE controls for ease of calibration and commanded analog "zero" capability
- Selectable Excitation frequencies of 2.5, 5.0 or 7.5 Khz
- Accommodates AC LVDT sensors with FSO from 16 to 1600 mV/V - 4 or 5 wire & Variable Reluctance sensors

You can quickly setup the **3730** via the simple controls located behind the front-panel. Once configured, the user maintains front panel access to the unit's fine Zero and Span controls along with NULL for mechanical alignment of the LVDT. For quick "zeroing"... Front or Rear panel TARE controls can be used to Zero the Display and the amplified analog output signal.

The **3730** conditioner is based on the synchronous carrier-demodulator principle, which can handle a remarkably wide range of AC LVDT transducers without the need to add correction circuits for Long Stoke, high output probes. Three selectable operating frequencies are provided to best match the user's specific transducer (2.5, 5.0 & 7.5 KHz).

Exceptional signal stability and accuracy over the entire input range are achieved through:

- regulated, remote sensed AC excitation
- precise linearity and symmetry correction with signal phase control - automatic or manually adjusted
- wide zero and span controls to accommodate virtually any type or manufacture's AC LVDT sensors
- Front panel Analog TARE and electrical NULL control
- "Hardware" operation, no computer or software configuration required.

MODEL 3730

AC LVDT PANEL INSTRUMENT

SPECIFICATIONS

Case: Each unit is housed in a single piece of heavy gage aluminum and contains slide rails for panel mounting

Physical: 2.84" H x 5.68" W x 7.06" D, weight: 3.25 Lbs

Power Requirements: 90-250 VAC, 47-63 Hz @ 10W max

Operating Temperature Range: 0° to +55° C

Operating Relative Humidity: 5 to 95% noncondensing

Transducer Types : Virtually any variable transformer transducer, including 4-, 5-, and 6-wire LVDT's and 3- and 5-wire Variable Reluctance Transducers.

Input Ranges (Nominal, Full Scale): 16 to 1600 mV/V selectable when configured (Note: The Highest range the unit will accomodate are actual inputs as high as 1800 mV/V)

Analog Output Selectable +/- 0 to 5; +/- 0 to 10 Vdc. 4 - 20 or 4-12-20 mA. 20% over-range on voltage only outputs

Analog Filters: 2, 20, or 200 Hz low pass (Selectable)
1000 Hz low pass, fixed - Fast Output terminal

Excitation: Frequency - 2.5, 5.0 or 7.5 KHz; selectable
Voltage - 2.77 VAC RMS up to 70 mA, sensed

Accuracy: typical +/- 0.02%, limited only by calibration accuracy

Tare Offset: User enabled front/ rear control. Tare range - approx. 60% of Full Scale.

Front-Panel TARE Indication :

Un-lit: No TARE has been invoked

Red: Invalid / Error when TARE applied (possible out of range condition)

Green: Valid TARE has been applied

Yellow: In process of applying the TARE command

Logic Inputs : TARE, TARE Enable, NULL and HOLD, Common True

Hold Command: Applied and released via logic input

Data Display: 6-Segment Red LEDs; Count by 1,2 or 5 depending on display range settings: maximum count of 199950. Count by 1 in 5000, 2 in 10000 or 5 in 20000, with dummy zero.

Note: Display contains span controls to adjust display reading independent of the analog output signal.

Wiring: removable screw terminal connectors, provided

Conformity

2014/30/EU Electromagnetic Compatibility

2014/35/EU Low Voltage Safety

ISO 9001:2008 certified



Rear Panel View - screw terminal connectors, provided

