TRACKER 260

LVDT Indicators

"Fast-Cal" Calibration

Adjustable Display Resolution

Max/Min Memory

Isolated Analogue Output

Two Logic Inputs

Front Panel Function Buttons

Transducer Excitation Supply

High Speed Analogue Output

Universal Mains Power Supply

Serial Communications

Dual Alarm Relays (Tracker 264)

Quad TTL Alarm Outputs (Tracker 265)

The Tracker 260 series of digital panel indicators are designed specifically for use with LVDT transducers. Data Tracks "Fast-Cal" feature provides a fast and simple method of calibrating an indicator to the transducer at any two stroke positions. The Tracker 260 is configured for the correct transducer excitation voltage and frequency as recommended by the sensor manufacturer. As LVDT transducers can only be calibrated when in situ, the sensor is set to the mechanical "low" (zero) and then the "high" (span) positions when prompted by the Tracker 260. The measured LVDT signals values are then stored, with their relevant display values, as the calibration parameters. The Tracker 260 can also automatically set the correct input gain to suit the LVDT transducers output. The displayed values can be in millimetres, inches or any other measurement units.

The Tracker 260 series of LVDT indicators have a five digit display, transducer excitation supply and many software features including max/min memory and maths functions. All models are fitted with two analogue outputs. A high speed analogue output for monitoring fast changes of sensor movement as well as a separate, electrically isolated, scaleable analogue output. The serial RS 422/485 communications interface allows connection to data loggers, PLCs and computers. Two logic inputs are provided to allow remote control of user selectable functions. In addition, two of the front panel push buttons can be user defined to allow fast access to pre-programmed functions. The specification of the three models are identical except that the Tracker 264 has two alarm relays, and the Tracker 265 has four TTL alarm outputs.

Data Track

Display
Type: 14.7mm high, red (standard) or green, high brightness LED
Range: -19999 to +99999
Decimal point position: User selectable
Update rate: User selectable 2, 4 or 10 per second
Filter: User adjustable, 0 (off) to 999 seconds

LVDT Input
Input voltage range: 0.05V to 5Vrms
Gain ranges: 1, 5, 10 & 100
Automatic or manual gain setting facilities
Non linearity: < ± 0.02%
Temperature drift: < ± 0.005% FSO per °C
Stability: < ± 0.01% FSO after 15 minutes
Transducer supply: Selectable 3.0 or 5 Volt rms. @ 25mA
Supply frequency: User selectable 2.5 or 5.0Khz
Measurement resolution: Better than 1 part in 120,000
Measurement rate: 10 readings per second
Measurement modes: User selectable 4 wire differential
or 5 wire Ratiometric

Alarms
Setpoints for alarms can be quickly adjusted during normal running via the front panel buttons or by password protected menus (user selectable)

Alarms can be flashed on the display with the measured value.
4 Alarm Menus, each individually user selectable for :-
- High, low or deviation alarm action
- High and low band limits (deviation action only)
- On and off delay timers
- On and off hysterisis
- Latching or non-latching

Alarm Relays (Tracker 264 Only)
2 off, single change over (form C) contacts
Rated 1A @ 240Vac, 5A @ 30Vdc
Relays can be configured to be energised or de-energised in the alarm condition.

TTL Alarm Outputs (Tracker 265 Only)
4 off, TTL open collector.
Alarm outputs can be configured to be energised or de-energised in the alarm condition.

Status (Logic) Inputs
One or more of the following functions can be user assigned to either of the two logic inputs.

Tare, Auto (offset) Zero, Display hold, Analogue output hold, Display max, Display min, Display average, Display test, Reset (latched) alarms, Reset max/min & average (to the current measured value), "Enter" button lock (disables entry to configuration menus), Alarm inhibit and "Fast-Cal" Calibration enable.

The logic inputs can be switched by external volt free contacts or a TTL signal

Function Keys
One or more of the following functions can be user assigned to either of the two front panel function buttons.

Tare, Zero, Display hold, Display max, Display min, Display average, Display test, Reset (latched) alarms, Reset max/min & average (to the current measured value), "Fast-Cal" Calibration enable.

High speed Analogue Output
This is a buffered output giving a fast response from the LVDT demodulator output. The signal amplitude is dependant on the transducer excitation and the amount of sensor travel.
Output filter: -3dB @ 125Hz

CE Tracker 260 indicators have been tested and comply with the European Electromagnetic Compatibility Directives and safety requirements. The units are CE marked.

Isolated Analogue Output
Isolation: 500Vdc/Peak ac
Output: User selectable 0-10V, 0-20mA or 4-20mA
Scaling: User selectable (e.g. 4 to 20mA = 3.0 to 5.0mm)
Accuracy: Better than 0.2%
Temperature drift: <100 ppm per °C
Response: 63% within 32mS, 99% within 100mS
Resolution: 0.05% (5mV or 0.01mA)
Maximum voltage output: 11V @ 22mA
Maximum current output: 22mA @ 18V
Maximum load: 900Ω
Programmable output damping filter

"Fast-Cal" Calibration
Automatically calibrates and matches the indicator to a connected LVDT transducer. The Tracker 260 reads the transducer's output at any two sensor positions. The two measured values are stored as the calibration parameters. Calibration can be performed at any time.

Serial Communications
Type: RS 422/485, 2 or 4 wire multidrop
Isolation: 500Vdc/Peak ac
Speed: 1200, 2400, 4800, 9600 baud
Parity: Odd, even or none
Stop Bits: 1 or 2
Protocols: User Selectable for MODBUS™ (RTU or ASCII), J-BUS and DTPI (Data Track Process Instruments)

Maths
Max/Min: Stores maximum and minimum display values
Averaging: Calculates average value over a user defined period between 1 and 9999 seconds

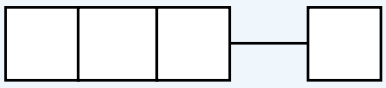
Power Requirements
Universal 90 to 265Vac 50 or 60 Hz @ 12VA nominal

Environmental
Temperature: 10 - 50°C operating, -10 to 70°C storage
Humidity: 0-95% RH non condensing

Physical / Mechanical
Dimensions: 48mm (H) x 96mm (W) x 173mm (D)
Panel cut-out: 44mm (H) x 92mm (W)
Depth behind panel: 166mm including terminals
Weight: 0.4kg (0.55kg packed weight)

Safety and EMC
Safety: EN61010
Susceptibility: EN50082-1 & 2
Emissions: To EN50081-1 & 2,
EN50022 Class A for radiated and conducted.
CE Certified 1997

Ordering Code



Model Number — Display Colour

Model Number:
263 LVDT Indicator
264 LVDT Indicator with Dual Alarm Relays
265 LVDT Indicator with Quad TTL Alarm Outputs

Display Colour:
R Red (Standard)
G Green

Example: 264-G
Tracker 264 LVDT Indicator with Dual Alarm Relays and Green Display

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