

TRACKER 250

Melt Pressure Indicators



"Fast-Cal" Calibration

Transducer Excitation Supply

Max / Min Memory

Isolated Analogue Output

Two Logic Inputs

Transducer Health "Test" Function

Adjustable Display Resolution

Universal Power Supply

Serial Communications

Dual Alarm Relays (T254 Only)

The Tracker 250 series of digital panel indicators are designed specifically for use with Melt Pressure Transducers. Data Track's "Fast-Cal" feature provides a fast and simple method of calibrating an indicator, using the transducers internal calibration resistor. Re-calibration can be undertaken whenever the transducer is at ambient pressure (i.e. has no pressure applied to it). Should the transducer be faulty, or incorrectly wired, this will be indicated during the calibration procedure.

Both the Tracker 253 and 254 have a five digit display and transducer supply as well as many advanced software features. In addition, both models are fitted with an analogue output and an RS 422/485 communications interface to allow connection to data loggers, chart recorders, PLCs and computers. The Tracker 254 also has two alarm relays, both with volt free change over contacts. The displayed pressure can be in psi, bar, MPa or any other engineering units. A special "test" function allows the transducer wiring and calibration to be checked.

Display

Range: -19999 to 99999

Type: Red (standard) or green LED 14.7mm high

Measurement resolution: User selectable

Update rate: 2 per second

Input

ADC Type: Dual slope with auto zero, 17 bit (universal for mV, mA and voltage signals)

Resolution: Up to 1 μ V per display digit (mV input)

Accuracy: Better than 0.05% of reading

Measurement rate: 10 per second

Input impedance: >100M Ω (mV inputs)

Common mode rejection: >150dB

Series mode rejection: >70dB

Transducer Supply

User selectable regulated 0-12Vdc @ 35mA

Temperature drift: < 100 ppm per $^{\circ}$ C

Loop power: Nom 24Vdc (35mA max)

Alarms

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 hysteresis

Latching or non-latching

Setpoints for alarms 1 & 2 can be simply adjusted during normal running or only via password protected menus (user selectable).

Alarm 3 and 4 setpoints can only be adjusted in the password protected menus but can also be set to track setpoints 1 and 2 if required.

Alarm Relays (Tracker 254 Only)

2 off, single change over (form C) contacts

1 Amp @ 240Vac, 5 Amp @ 30Vdc

Function Keys and Status (Logic) Inputs

Functions can be user assigned to two of the front panel buttons and the two logic inputs. The logic inputs can be switched by external volt free contacts or TTL signals. Functions available include:-

Fast cal operation

Transducer test function

Display hold

Display test

Alarm acknowledge

Keyboard lock

"Fast-Cal" Calibration

Automatically calibrates and matches the indicator to a connected melt pressure transducer. The Tracker 250 reads the transducer's output at Zero (ambient) pressure. It then reads the Span output by switching the transducers internal calibration resistor (which normally gives 80% of the full transducer output). The measured values are stored as the calibration parameters. Calibration can be performed at any time when the transducer has no pressure applied to it. Error messages are displayed for an incorrectly wired or faulty sensor.



Tracker 250 indicators have been tested and comply with the European Electromagnetic Compatibility Directives and safety requirements. The units are CE marked.

DATA TRACK PROCESS INSTRUMENTS

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Transducer Test

Allows a fast and accurate method of checking the wiring, calibration and health of the connected transducer.

Analogue Output

Isolation: 500Vdc/Peak ac

Output: User selectable 0-10V, 0-20mA or 4-20mA

Scaling: User scaling to any displayable value

Accuracy: Better than 0.2%

Temperature drift: < 100 ppm per $^{\circ}$ 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: 900 Ω

Programmable output damping filter

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: MODBUSTM RTU (J-BUS), MODBUSTM ASCII and DTPI (Data Track Process Instruments) user selectable.

Environmental

Temperature: 10 - 50 $^{\circ}$ C Operating, -10 to 70 $^{\circ}$ C storage

Humidity: 0-95% RH non condensing

Power Requirements

Universal 90 to 265Vac 50 or 60 Hz @ 10VA nominal.

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 & conducted

CE Certified 1997

Ordering Code



Model Number

Display Colour

Model Number:

253 Melt Pressure Indicator.

254 Melt Pressure Indicator with Alarm Relays

Display Colour:

1 Red (Standard)

2 Green

Example: 254-G

Tracker 254 Melt Pressure Indicator with Alarm Relays and Green Display

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