



UNIVERSAL INPUT PANEL METERS

Tracker 211



- * **Universal inputs for common process signals mA, mV/V, R, RTD, TC**
- * **Universal mains power (optional low voltage AC/DC)**
- * **Alarm relay as standard - (up to three available)**
- * **Transmitter & transducer supplies**
- * **Analogue output option**
- * **Low cost**

The Tracker 211 indicator is designed for cost-effective applications in demanding industrial environments. With the universal input, stock / spares holding is kept to a minimum. The Tracker 211 can be used for measurement and display only applications, as an alarm trip and can act as a transmitter with the analogue option.



Basic unit without front panel controls

Universal input

The Tracker 211 can be directly connected to most popular process sensors and is fully scaleable for mV, mA, voltage and resistance inputs. Six linearised thermocouple ranges with cold junction compensation (up-scale sensor burn-out detection) and two RTD ranges are provided. Temperature can be displayed in °C or °F.

Maths functions

Zero, Tare and Max./Min. memory functions are available on versions fitted with front panel buttons.

Configuration

The instrument may be configured via front panel pushbuttons (when fitted) or via hidden buttons behind fascia or via Windows software.

Universal mains power

Supplied with universal mains operation (90-250VAC) or optional low voltage 10-32VDC/AC

Sensor excitation

An isolated 24VDC transmitter supply is provided as standard for powering two-wire (4-20mA) sensors. In addition a regulated 10VDC (50mA) output is provided for strain gauge type sensors such as pressure transducers and load cells.

Alarm relays

An alarm relay is fitted as standard with a further two available as options. Set-points can be set at time of configuration or adjusted using the hidden buttons behind the front panel. If the set-points are to be adjusted frequently, a version of the Tracker 211 can be supplied with front panel buttons. Each alarm relay can be configured to be high or low acting.

Analogue output (optional)

The measured value can be transmitted as a linear 4-20mA signal to other devices such as chart recorders or dataloggers. The output can be scaled to any portion of the display range e.g. 4-20 mA = 500 to 800 (psi). The analogue output always follows the displayed value so when using thermocouples and RTDs, the analogue output is linear to temperature.

Units of measurement

Engineering unit labels are supplied for the most common measurements including temperature, flow, distance, power and pressure.

CONFIGURATION

The instrument can be configured using concealed buttons, which are situated behind the front panel. The Tracker 211 prompts the user for each set-up parameter. For users that need to configure many units, a Windows compatible software program is available for set-up, storage and downloading to the Tracker 211. A special adapter lead can be provided to connect an RS232 interface on the computer to the programming port on the Tracker 211.

DISPLAY

Type: 14.2mm high brightness red LED (green option)
Range: 4 digit (-1999 to 9999)
Update rate: 2 per second

A/D CONVERTER

Type: Dual slope integrating with auto zero
Conversion rate: 100ms
Common mode rejection: > 150dB
Series mode rejection: > 70dB (50 & 60Hz)

THERMOCOUPLE INPUTS

CJC Accuracy: Better than 1°C after 30 minutes
Open circuit sensor detection: Upscale
Engineering units: °C or °F
Measurement resolution: 1 or 0.1°C/°F

Thermocouple	Accuracy Including Linearisation		
	Range (°C)	Worst case	Typical @ 25°C
Type J Fe/NiCu	-210 to 1200°C	± 1.0°C	± 0.5°C
Type K NiCh/Ni/Al	-270 to 1372°C	± 1.0°C	± 0.5°C
Type T Cu/CuNi	-270 to 400°C	± 1.0°C	± 0.5°C
Type N Nicrosil-Nisil	-200 to 1300°C	± 1.0°C	± 0.5°C
Type S Pt10%-RhPt	-50 to 1767°C	± 2.0°C	± 1.2°C
Type R Pt13%-Rh Pt	-50 to 1767°C	± 2.0°C	± 1.2°C

RESISTANCE THERMOMETERS

Configuration: 3 wire
Excitation current: 0.25mA (nominal)
Engineering units: °C or °F
Measurement resolution: 1 or 0.1 °C or °F

RTD Type	Accuracy Including Linearisation		
	Range (°C)	Worst case	Typical @ 25°C
Pt100 (alpha=385)	-200 to 850°C	± 0.8°C	± 0.5°C
Pt100 (alpha=392)	-200 to 457°C	± 0.8°C	± 0.5°C

MATHS FUNCTIONS

(Front panel buttons must be fitted)
Tare or Zero (programmable), Max/Min Memory.

SAFETY AND EMC

Safety: EN61010
Susceptibility: EN50082-2
Emissions: EN50081-1
CE Certified 2000
ISO 9002 QUALITY

VOLTAGE & CURRENT INPUTS

Ranges: ±20mA, ±100mV, ±10V DC.
Scaling: Any portion of the display range (decimal point in any position)
Accuracy: ±0.1% (worst case),
0.05% typical @ 25°C ambient
Drift with temperature: < 200 ppm/°C
Impedance (Ohms): <5 (mA), 100M (mV), 1M (Volt)

ANALOGUE OUTPUT (Option)

Output: 4 to 20mA
Maximum output: 22mA
Temperature drift: < 200 ppm
Accuracy: 0.4% of span (worst case),
0.2% typical @ 25°C ambient
Maximum load: 500 Ohms
Resolution: 0.02mA

ALARM RELAYS (Relays 2 & 3 are optional)

Relays 1 & 2: Change over contacts
Relay 3: Normally open contact
Rating (all relays): 1 Amp @ 250VAC, 5 Amp @ 30VDC

PHYSICAL/MECHANICAL

Front panel: Protection to IP65
Dimensions (mm): 48(H) x 96(W) x 100(D)
Panel cut-out (mm): 45(H) x 93(W)
Weight: 0.4Kg (max), packed weight 0.55Kg

ENVIRONMENTAL

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

Ordering Code															
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Model Number			Outputs	Buttons	Power	Display									
Outputs	A One Alarm Relay (Fitted as standard) B Two Alarm Relays C Three Alarm Relays D Analogue Output (1 Alarm relay fitted as standard) E Analogue Output + 1 Alarm relay (2 relays in total) F Analogue Output + 2 Alarm relay (3 relays in total)														
Buttons	N = Not Fitted B = Fitted														
Power	1 = 90-265VAC (50/60Hz), 2 = 10-32VDC/AC														
Display	R = Red (Standard) G = Green (Optional)														
Example	211-D-B-1-R Tracker 211 with 1 Alarm Relay, Analogue Output and Front Panel Buttons fitted. Mains powered with Red Display														



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