

Specifications

Adjustments 22-turn potentiometers
Zero: Adjusts output to 0% for offsets upto $\pm 20\%$ of span without -LNT (linearization) option. Adjusts output to 0% for offsets up to $\pm 10\%$ of factory set input temperature points with -LNT.
Span: Output is fully adjustable over a pre-selected input range to 100% of selected output span.

Performance **Calibration Capability** (linearity and repeatability): $\pm 0.1\%$ of span
 $\pm 0.25\%$ of span for LSA
Frequency Response: 5 Hz (3dB point)
Reference Junction: Cold junction compensated
Input Impedance: 10 megohms minimum
Burnout Protection: Upscale drive standard; downscale drive optional
Ripple: Less than 10mV P/P at max. load and max. span
Load Effect: $\pm 0.01\%$ of span from 0 to max. load resistance (current output)
Line Voltage Effect: $\pm 0.005\%/1\%$ line change (ac or dc)

Ambient Temperature **Range:** -29°C to $+82^{\circ}\text{C}$ (-20°F to $+180^{\circ}\text{F}$)
Effect on amplifier: $\pm 0.005\%$ / $^{\circ}\text{F}$ over above range
Effect on cold junction compensation: $\pm 1^{\circ}\text{C}$ (LSA +2 $^{\circ}$) maximum offset per 100 $^{\circ}\text{C}$ ambient change

Output Operational feedback amplifier current source; output limited to 150% of max. output range value.

Isolation Input, output and power supply are transformer isolated (standard on both ac and dc powered units). Common mode rejection exceeds 120dB at 60Hz with a limit of 500V rms.

Linearity Output linear with respect to input millivolts
Characterization: With -LNT option, provides a minimum of 10:1 improvement $\pm 0.1\%$ in the linearity curve of the specified thermocouple temperature range (standard ranges only)

Certification CSA

Weight Approx. 2 lbs. (908 grams)

***Options** **-DD** Downscale open input drive
****EZ** Elevated zero input (required for all inputs exceeding standard zero adjustment capability—specify input for 0% out)
-FU 400mA power fuse (requires engineering for STD and AB housings)
-LNT Thermocouple linearization (not available with -ST, -RC, or -DR options)
-LSA Lower span – 2-5 mVFS input (consult factory for specifications)
-RF RFI/EMI protection 50V/m-abc= $\pm 0.1\%$ F.S. as defined by SAMA Standard 33.1. With -RF option, input is isolated from output 500vdc.
-ST Selectable thermocouple type (not available with -LNT)

Ordering Specifications

Unit TCT

Standard Input Ranges (Thermocouple, all standard ISA types)
5-10MVFS: 5-10 mVFS
10-20MVFS: 10-20 mVFS
20-50MVFS: 20-50 mVFS (Refer to -LSA option for narrow spans)

Output Current Ranges **1-5MA:** 1-5mA into 0-4800 Ω
4-20MA: 4-20mA into 0-1200 Ω load
10-50MA: 10-50mA into 0-480 Ω load
Voltage: **1-5Vdc** standard into 20K Ω minimum, **0-5Vdc, 0-10Vdc** with LNT (other ranges available)

Power Input **24DC:** 24Vdc $\pm 10\%$
45DC: 45Vdc $\pm 10\%$
117AC, 220AC, 240AC 50/60Hz $\pm 10\%$
 5 watts maximum

***Housings** **UB** Standard U-back bracket
AB Angle bracket mounting
CP Conduit termination for standard units
D2 Conduit termination with aluminum safety cover to meet Class I, Gp. A,B,C,D Div. 2 requirements.
EX Explosion-proof enclosure, CL1, Div. 1
FG Fiberglass enclosure, NEMA 12
GP General-purpose enclosure, NEMA 1
OT Oiltight enclosure, NEMA 12
PM Panel-mount enclosure
TCE Transparent cover enclosure, NEMA 4
WT Watertight enclosure, NEMA 4

When ordering, specify:

Unit / Input Range / Output Range / Power Input / Options [Housing]

Model number example: TCT/J5-10MVFS/4-20MA/45DC/-EZ14 [STD]

*For more information on additional and individual housings or options, refer to the separate housing data sheet or consult local representative or the factory.

**EZ option will be required if input millivolts, corresponding to 0% output, falls outside of $\pm 20\%$ of the selected calibration range.



United States • info@miinet.com
 Tel: (818) 894-7111 • FAX: (818) 891-2816
 Australia • sales@mooreind.com.au
 Tel: (02)8536-7200 • FAX: (02) 9525-7296

Demand Moore Reliability

www.miinet.com

BeNeLux • info@mooreind.eu
 Tel: 03/448.10.18 • FAX: 03/440.17.97

China • sales@mooreind.sh.cn
 Tel: 86-21-62491499 • FAX: 86-21-62490635
 United Kingdom • sales@mooreind.com
 Tel: 01293 514488 • FAX: 01293 536852