



# CL-B101D40-TCRTD

Smart 101 segment 4 digit LED Tricolor or Mono-color digital bargraph controller with four fully programmable set points for J, K, R, and T type thermocouples and RTD inputs in a switchboard style case.

## Specifications

<b>Input Specs:</b>	Depends on Input signal conditioner
<b>A/D Converter:</b>	14 bit single slope
<b>Accuracy:</b>	±(0.05% of reading + 2 counts)
<b>Temp. Coeff.:</b>	100 ppm/°C (Typical)
<b>Warm up time:</b>	2 minutes
<b>Conversion Rate:</b>	10 conversions per second (Typical)
<b>Digital Display:</b>	4 digit 0.56" LED red (std), green (optn) Range -1999 to 9999 counts.
<b>Bargraph Display:</b>	101 segment 235° circular red (standard), Green (optional) or tricolor (optional) LED.
<b>Polarity:</b>	Assumed positive. Displays - negative
<b>Decimal Selection:</b>	Front panel button selectable, X•X•X•X•
<b>Positive Overrange:</b>	Bargraph and top segments of digital display flash.
<b>Negative Overrange:</b>	First segment of bargraph and bottom segments of digital display flash.
<b>Relay Output:</b>	Two 9 Amp Form C relays, two 4 Amp Form A relays or 4 x 4 Amp Form A relays
<b>Analog Output:</b>	Isolated 16 bit user scalable mA or V
OIC (mA out)	4-20 mA @ 0 to 500Ω max loop resistance
OIV (volts out)	0-10 V DC @ 500 Ω or higher resistance
<b>Power Supply:</b>	AC/DC Auto sensing wide range supply
PS1 (std)	85-265 VAC / 95-300 VDC, 50-400Hz 4.2W
PS2	18-48 VAC / 10-72 VDC, 50-400Hz 4.2W
<b>Operating Temp.:</b>	0 to 60°C
<b>Storage Temp.:</b>	-20°C to 70°C
<b>Relative Humidity:</b>	95% (non condensing)
<b>Case Dimensions:</b>	Bezel (4.48"x4.48") 113.8x113.8mm Depth behind bezel (4.23") 107.46 mm Plus (0.48") 12.24 mm for connectors
<b>Weight:</b>	16 oz., 1lb 4 oz when packed

## General Features

- External transmitters or signal conditioners can be eliminated by direct connection of the sensor output to Plug-in Input Signal Conditioners- available are thermocouples (J, K, R and T types) or RTD (Pt-100, 385 and 392 curves. 3 wire/4wire). Digitally Linearized.
- Optional isolated 16 bit analog output. User or factory scalable to 4 to 20 mA, 0 to 20 mA or 0 to 10 V across any desired digital span from ± one count to the full scale range of - 1999 to 9999 (12000 counts).
- A Programmable Tricolor (Red-Green-Orange) or mono color (red or green), 101 segment high brightness bargraph.
- Red 4-digit LED display with a range of -1999 to 9999 (12000 counts). Optional green digital display.
- Front panel LED annunciators provide indication of setpoint status.
- Two 9 Amp Form C, and two 4 Amp Form A or 4 x 4 Amp Form A relays available.
- Auto-sensing AC/DC power supply. For voltages between **85-265 V AC / 95-300 V DC (PS1)** or 18-48 V AC / 10-72 V DC (PS2).
- Provision to connect an external programming lockout switch.
- Provision for external DIM switch to reduce the brightest display setting by 50%.
- Automatic intelligent averaging, smooths noisy signals while providing a fast display response to real level changes.

## Software Features

- The bargraph can display, full scale, any desired portion of the digital reading.
- Setpoint 1 has delay-on-make and delay-on-break plus a special "pump on pump off" mode that creates a Hysteresis Band between SP1 and SP2.
- Four programmable setpoints with adjustable Hysteresis.
- Bargraph center zero function.
- Relay activation can be selected to occur above (hi) or below (Lo) each setpoint.
- Digital display blanking.
- Decimal point setting.
- Four-level brightness control