



LEOPARD
FAMILY



CL-B101D40PS

Smart 101 segment, 4 digit LED Tricolor or Mono-color digital bargraph controller with Programmable Scale Factor input signal scaling and four fully programmable set points in a switchboard style case for monitoring, measurement, and control applications.

General Features

- External transmitters or signal conditioners can be eliminated by direct connection of the sensor output to more than 40 Plug-in Input Signal Conditioners that include:
 - AC/DC Current
 - AC/DC Voltage
 - Load Cell
 - Pressure
 - Process
 - Prototype
 - Resistance
 - Temperature
 - 4 to 20 mA
- 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 \pm 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).
- 24 V DC excitation is available to power external 4/20mA transmitters and 5 or 10 V DC excitation is available for resistance bridge type sensors.
- 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.

Specifications

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

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