



LEOPARD FAMILY

## BL-40H

**Leopard Temperature Meter  
4 Digit 0.56" LEDs  
in a 1/16 DIN CASE**



**An economically smart temperature meter relay  
for J, K, R, and T type thermocouple and RTD inputs.**

### General Features

- Thermocouple (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  $\pm$  one count to the full scale range of - 1999 to 9999 (12000 counts).
- Auto-sensing AC/DC power supply. For voltages between **85-265 V AC / 95-300 V DC (PS1)** or 15-48 V AC / 10-72 V DC (PS2).
- Standard red or optional green or super bright red 4-digit LED
- Three annunciator LEDs provide front panel alarm status indication for up to three setpoints.
- One 9 Amp Form C and one 4 Amp Form A relay, or up to three 4 Amp Form A relays are available.
- When analog output is installed, one 9 Amp Form C or two 4 Amp Form A relays can be supported.
- UL Listed

### Software Features

- Three-button programming from the front panel (UP, DOWN and PROGRAM buttons).
- Three front panel selectable ranges.
- Front panel selectable four-level brightness control of digital display, and setpoint LEDs.
- Three programmable setpoints.
- Relay activation can be selected to occur above (HI) or below (LO) each setpoint.
- Hysteresis setting for all three setpoints. Delay on make and delay on break for SP1 and SP2.

### Input Module Compatibility

There are 2 different Plug-in Modular Input Signal Conditioners for this specialized temperature only member of the Leopard Family. IT10 is for J, K, T and R thermocouples. IT11 is for 3 wire/4 wire Pt-100 RTD inputs.



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### 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:**.....5 conversions per second (Typical)

**Display:**.....**4 digit 0.56" Red LED display (std)**,  
0.56" Red, Green or Super Bright Red  
(optn). Range -1999 to 9999 counts.

**Polarity:**.....Assumed positive. Displays - negative

**Decimal Selection:**.....Automatic by resolution select XXX•X

**Positive Overrange:**..Top segments of digital display flash

**Negative Overrange:**..Bottom segments of digital display flash

**Relay Output:** .....Three 4 Amp Form A relays or one 9 Amp  
Form C, and one 4 Amp Form A relay.

**Analog Output:**.....Isolated 16 bit user scalable mA or V  
OIC (mA out).....4-20 mA @ 0 to 500 $\Omega$  max loop resistance  
OIV (volts out).....0-10 V DC @ 500  $\Omega$  or higher resistance

**Power Supply:**.....AC/DC Auto sensing wide range supply

**PS1 (std)** .....**85-265 VAC 50-400Hz / 95-300 VDC @ 2.3W**

**PS2** .....15-48 VAC 50-400Hz / 10-72 VDC @ 2.3W

**Operating Temp:**.....0 to 50  $^{\circ}$ C

**Storage Temp:**.....-20  $^{\circ}$ C to 70  $^{\circ}$ C.

**Relative Humidity:** .....95% (non condensing)

**Case Dimensions:**.....1/16 DIN, Bezel: 96x24mm (3.78"x0.95")

Depth behind bezel 122.2 mm (4.83")

Plus 12.7mm (0.5") for Right-angled  
connector.

**Weight:**.....7 oz., 9 oz when packed