



BL-40

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

An economically smart programmable meter relay with isolated 4 to 20 mA retransmission or control loop output capability for measurement and control applications in a 96x24mm case.

- External transmitters or signal conditioners can be eliminated by direct connection of the sensor output to more than 38 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).
- Auto-sensing AC/DC power supply. For voltages between **85-265 V AC / 95-370 V DC (PS1)** or 15-48 V AC / 10-72 V DC (PS2).
- 24 V DC excitation is available to power external transmitters and 5 or 10 V DC excitation is available for resistance bridge type sensors such as Load Cells and Pressure Transducers.
- Standard red or optional green or super bright red 4-digit LED with display range -1999 to 9999 (12000 counts).
- Three annunciator LEDs provide front panel alarm status indication for up to three setpoints.
- One 10 Amp Form C and one 5 Amp Form A relay, or up to three 5 Amp Form A relays are available.
- When analog output is installed, one 10 Amp Form C or two 5 Amp Form A relays can be supported.
- Automatic intelligent averaging smooths noisy signals, while providing a fast display response to real level changes.

- 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.
- Peak and Valley. View and Reset.

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LEOPARD

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/ $^{\circ}\text{C}$ (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: Front panel button selectable, **X•X•X•X•X**

Positive Overrange: Top segments of digital display flash

Negative Overrange: Bottom segments of digital display flash

Relay Output: Three 5 Amp Form A relays or one 10 Amp
Form C, and one 5 Amp Form A relay.

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 / 95-370 VDC @ 2.5W max 3.2W**

PS2 15-48 VAC / 10-72 VDC @ 2.5W max 3.2W

Operating Temp.: 0 to 60 $^{\circ}\text{C}$

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

Relative Humidity: 95% (non condensing)

Case Dimensions: 1/16 DIN Bezel 96x24mm
Depth behind bezel 122.2mm (4.83")
Plus 12.7mm (0.5") for Right-angled
connectors

Weight: 7 oz., 9 oz when packed



Ordering Information

BASIC MODEL # DISPLAY POWER SUPPLY INPUT MODULES ANALOG OUTPUT RELAY OUTPUT OPTIONS / ACCESSORIES

BL-40	—		—		—		—	OA_____
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Add to the basic model number the order code suffix for each standard option required. The last suffix is to indicate how many different special options and or accessories that you may require to be included with this product.

Ordering Example: BL-40-DR-PS1-IA01-OIC-R1-OA2, the 2 OA's are, CR-CHANGE and a 75-DMT96X24

►BASIC MODEL NUMBER

BL-40 96x24mm, Leopard, 4 Digit

Standard Options for this Model Number

Order Code Suffix	Description
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►DISPLAY

DR Red LED, 0.56 inch high

DB Super-bright Red LED, 0.56 inch high

DG Green LED, 0.56 inch high

►POWER SUPPLY

PS1 85 - 265VAC / 95 - 370VDC

PS2 18 - 48VAC / 10 - 72VDC

►INPUT MODULES (Partial List. See www.texmate.com)

Unless otherwise specified Texmate will ship all modules precalibrated with factory preselected ranges and/or scalings as shown in **BOLD** type.

IA01 AC-Volts Scaled RMS, 200/**600V** AC
IA02 AC-Volts Scaled RMS, 200mV/**2V**/20V AC
IA03 AC-mA Scaled RMS, 2/**20**/200mA AC
IA04 AC-Amps Scaled RMS, **0-1 Amp AC (0-100.00)**
IA05 AC-Amps Scaled RMS, **0-5 Amp AC (0-100.00)**
IA06 AC-Volts True RMS, 200/**600V** AC
IA07 AC-Volts True RMS, 200mV/**2V**/20V AC
IA08 AC-mA True RMS, 2/**20**/200mA AC
IA09 AC-Amps True RMS, **0-1 Amp AC (0-100.00)**
IA10 AC-Millivolt, Scaled RMS, **100mV AC**
IA11 AC-Amps True RMS, **0-5 Amp AC (0-100.00)**
IA12 AC-Millivolt, True RMS, **100mV AC**
ID01 DC-Volts, **2/20/200V**/Custom w/24V DC Exc
ID02 DC-Millivolt, 20/50/**100/200mV** DC w/24V DC Exc
ID03 DC-Milliamp, **2/20/200mA** DC w/24V DC Exc
ID04 DC-Amps, **5A DC**
ID05 DC-Volts **2/20/200**/Custom V DC w/Offset and 24V Exc
ID07 DC-Milliamp, **2/20/200mA** DC w/Offset and 24V Exc
ID09 DC-Amps, **1A DC**
IF02 Line Frequency, 50-500VAC, 199.9Hz, or optional 400Hz
IGYZ* Universal Direct Pressure

*View the IG- Ordering Code on page 11 to determine the value for Y & Z (IGAZ to IGKZ)

IP01 Process Loop, **4-20mA(0-100.00)**
IP02 Process Loop, **4-20mA(0-100.00)** w/24VDC Exc
IP03 Process Input, **1-5V DC(0-100.00)** w/Offset, 24V Exc
IP07 Universal Process 2V/5V/**10V**/20V/200V/2mA/20mA/Custom
IPT1 Prototype Board for Custom Design
IRO2 3-Wire Potentiometer 1K Ω min (0-F.S.)
IRO3 Linear Potentiometer, 3-wire, 1K Ω min
IRO5 Resistance 2K Ω
IS01 Strain Gage 5/10VDC Exc., 20/**2mV/V**, 4/6-wire
IS02 Pressure 5/10VDC Exc., 20/**2mV/V**, 4/6-wire
IS04 Pressure Ext Exc., 20/2mV/V, **4/6-wire**
IS05 Pressure/Load Cell 20/2mV/V, 5/10V Exc 4-wire
IS06 Pressure/Load Cell Ext Exc., 20/2mV/V, 4-wire

IS07 Pressure 20/2mV/V with High Impedance and External Excitation
IT03 RTD, 100 Ω Pt. 2/**3/4-wire (-200 to 800°C)**
IT04 RTD, 100 Ω Pt. 2/**3/4-wire (-200 to 1470°F)**
IT05 RTD, 100 Ω Pt. 2/**3/4-wire (-190.0 to 199.0°F)**
IT06 Thermocouple, J Type (**0-1400 °F**)
IT07 Thermocouple, K Type (**0-1999°F**)
IT08 Thermocouple, J Type (**0-760 °C**)
IT09 Thermocouple, K Type (**0-1260°C**)
IT14 RTD, 100 Ω Pt. 2/**3/4-wire (-199.0 to 199.0°C)**

►ANALOG OUTPUT*

OIC Isolated analog 4-20mA (with a Max. Two-5A Form A Relays)

OIV Isolated analog 0-10VDC (with a Max. Two-5A Form A Relays)

*Note: When either of the Analog Output options is installed, only the R1, R2 and R11 Relay Output options can be co-installed (see below).

►RELAY OUTPUT

R1 Single 5A Form A Relay

R2 Dual 5A Form A Relays

R3 Three 5A Form A Relays; SP1 & SP2 common**

R11 Single 10A Form C Relay

R16 Single 10A Form C & Single 5A Form A Relays**

**R3 & R16 cannot be co-installed with Analog Output options.

Special Options and Accessories (OA's)

Part Number	Description
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►SPECIAL OPTIONS (Specify Inputs or Outputs & Req. Reading)

CR-CHANGE Calibrated Range Change to another Standard Range
CS-L/40 Custom Scaling within any Stnd. or Custom Selectable Range
CSR-L/40 Custom Selectable Range Installation or Modification
CSS-L/40 Custom Special Scaling beyond the Standard Range
COA-L/SINGLE Custom Output - Special Scaling of Analog Output
COR-L/RELAY Custom Output - Relays Installed in Non-Standard Locations
CCP-L/SETUP NRC to Set-up Custom Configuration - Functions, Codes
CCP-L/INSTL Factory Installation - Custom Configuration

►ACCESSORIES (Specify Serial # for Custom Artwork Installation)

75-DMT96X24 Side Slide Brackets (2 pc) - extra set, extra strength
75-DBBZ96X24 Extra Black Bezel for 96x24mm Case
ART-FS-S/D/C NRC for artwork & set-up Faceplate/Desc/Co.Logo
ART-FS-S/D NRC for artwork & set-up Faceplate/Desc
ART-FS-001 Install Custom Faceplate per meter - 1 color
93-PLUG2P-DP Extra Screw Terminal Conn., 2 Pin Power Plug
93-PLUG2P-DR Extra Screw Terminal Conn., 2 Pin Plug
93-PLUG3P-DR Extra Screw Terminal Conn., 3 Pin Plug
93-PLUG4P-DR Extra Screw Terminal Conn., 4 Pin Plug
DN.CAS96X24L Extra Complete 96x24mm Case with bezel
OP-MTLCLIP Screw Mounting Clips (2 pc) to screw tighten slide brackets
75-DTP96X24 Black Metal Trim Plate (96x24mm Case) 1 Meter
75-DTP2X9624 Black Metal Trim Plate (96x24mm Case) 2 Meters
75-DTP3X9624 Black Metal Trim Plate (96x24mm Case) 3 Meters

Many other options and accessories are available. See full price list for more details.

Prices subject to change without notice.

WARRANTY

Texmate warrants that its products are free from defects in material and workmanship under normal use and service for a period of one year from date of shipment. Texmate's obligations under this warranty are limited to replacement or repair, at its option, at its factory, of any of the products which shall, within the applicable period after shipment, be returned to Texmate's facility, transportation charges pre-paid, and which are, after examination, disclosed to the satisfaction of Texmate to be thus defective. The warranty shall not apply to any equipment which shall have been repaired or altered, except by Texmate, or which shall have been subjected to misuse, negligence, or accident. In no case shall Texmate's liability exceed the original purchase price. The aforementioned provisions do not extend the original warranty period of any product which has been either repaired or replaced by Texmate.

USER'S RESPONSIBILITY

We are pleased to offer suggestions on the use of our various products either by way of printed matter or through direct contact with our sales/application engineering staff. However, since we have no control over the use of our products once they are shipped, NO WARRANTY WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE, OR OTHERWISE is made beyond the repair, replacement, or refund of purchase price at the sole discretion of Texmate. Users shall determine the suitability of the product for the intended application before using, and the users assume all risk and liability whatsoever in connection therewith, regardless of any of our suggestions or statements as to application or construction. In no event shall Texmate's liability, in law or otherwise, be in excess of the purchase price of the product.

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