

TEXMATE



LEOPARD FAMILY



Large display option 0.8" red or green LED

DL-40

Leopard Panel Meter
4 Digit 0.56" or 0.8" LEDs
in a 1/8 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 96x48mm case.

General Features

- 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
- *See models DL-40H for higher accuracy digitally linearized thermocouple and RTD
- 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 VAC / 95-300 VDC (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).
- Red or green 0.8" LED large display option
- Four annunciator LEDs provide front panel alarm status indication for up to four setpoints.
- Two 9 Amp Form C and two 4 Amp Form A relays, or optionally four 4 Amp Form A relays are available.
- Automatic intelligent averaging smooths noisy signals, while providing a fast display response to real level changes.
- 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.
- Four programmable setpoints.
- Relay activation can be selected to occur above (HI) or below (LO) each setpoint.
- Hysteresis setting for all four setpoints. Delay on make and delay on break for SP1 and SP2.
- Peak and Valley. View and Reset.

Input Module Compatibility



LEOPARD FAMILY: More than 38 different Plug-in **I-Series** Input Signal Conditioners are approved for Texmate's Leopard Family of meters.



See www.texmate.com for an up to date listing.

LEOPARD

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" or 0.8" 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•
Positive Overrange: Top segments of digital display flash
Negative Overrange: Bottom segments of digital display flash
Relay Output: Two 4 Amp Form A relays and two 9
Amp Form C, or 4 Amp form A relays.
Analog Output: Isolated 16 bit user scalable mA or V
AIC (mA out) 4-20 mA @ 0 to 500 Ω max loop resistance
AIV (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 50-400Hz / 95-300 VDC @ 3W**
PS2 15-48 VAC 50-400HZ / 10-72 VDC @ 2.5W
Operating Temp.: 0 to 50 $^{\circ}$ C
Storage Temp: –20 $^{\circ}$ C to 70 $^{\circ}$ C.
Relative Humidity: 95% (non condensing)
Case Dimensions: 1/8 DIN, Bezel: 96x48 mm (3.78"x1.89")
Depth behind bezel: 117 mm (4.61")
Plus 11.8 mm (0.47") for Right-angled
connectors, or plus 20 mm (0.79") for
Straight-thru connector.
Weight: 6.5 oz., 8.5 oz when packed

Ordering Information

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

DL-40

OA

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. *Except when when R1 or R2 relay output is selected, a meter ordered with an analog output or a relay output module requires an Output Module Carrier Board which should be automatically included with the order, with an additional charge of \$7. (See Special Options and Accessories section)

Ordering Example: DL-40-DR-PS1-IA01-AIC-R1-OA2, the 2 OA's are, CR-CHANGE and a OP-N4X/96X48

► BASIC MODEL NUMBER

DL-40 96x48, Leopard, 4 Digit.....

Standard Options for this Model Number

Order Code Suffix	Description	List
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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.....
LG..... Large Green LED, 0.8 inch high.....
LR..... Large Red LED, 0.8 inch high.....

► POWER SUPPLY

PS1... .85 - 265VAC / 95 - 300VDC.....
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 IKGZ)

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
IR02... 3-Wire Potentiometer 1KΩ min (0-F.S.)
IR03... Linear Potentiometer, 3-wire, 1KΩ min
IR05... Resistance 2KΩ
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

► ANALOG OUTPUT *Add \$7 for an Output Module Carrier Board

AIC..... Isolated 16 Bit Current Output, 4-20mA
AIV..... Isolated 16 Bit Voltage Output, 0-10VDC

► RELAY OUTPUT

Note: R1 and R2 are located on the main board, and are generally used when only two Form A Relays or less are required and an Analogy Output is not required.

R1..... Single 5A Form A Relay
R2..... Dual 5A Form A Relays

► RELAY OUTPUT MODULES

Note: If a meter is ordered with a Relay Output Module, but without Analog Output, an Output Module Carrier Board for \$7 should be automatically added to the order.

OR11... One 10 Amp Form C Relay, Isolated
OR15... One 10 Amp Form C and Two 5 Amps Form A Relays
OR16... One 10 Amp Form C and One 5 Amp Form A Relays
OR12... Two 10 Amp Form C Relays, Isolated
OR14... Two 10 Amp Form C and Two 5 Amps Form A Relays
OR23... Two 10 Amp Form C and One 5 Amp Form A Relay, Isolated...
OR31... One 5 Amp Form A Relay, Isolated
OR32... Two 5 Amp Form A Relays, Isolated
OR33... Three 5 Amp Form A Relays, Isolated
OR34... Four 5 Amp Form A Relays, Isolated

Solid State Relay (SSR) Output Modules DC Only

OR51... One 400V DC Solid State Relay (SSR) 210mA
OR52... Two 400V DC Solid State Relays (SSR) 210mA
OR53... Three 400V DC Solid State Relays (SSR) 210mA
OR54... Four 400V DC Solid State Relays (SSR) 210mA

Special Options and Accessories (OA's)

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

Output Module Carrier Board

*One carrier board must be ordered with any meter that includes any one or more of the following options: Analog Output and/or Relay Output Modules.
SA-DL/OM-CB... Output Module Carrier Board, DL series
CR-CHANGE... Range Change from Standard Range shown in **BOLD** type
CS-3/3.5/4... Custom display scaling within standard ranges
COA-3/3.5/4... Custom scaling of analog output for digital meters & bargraphs
CCL-SETUP... NRC to set-up Custom Configuration file and issue serial #
CCL-INSTL... Installation of custom configuration, specify serial #CCL-
CSR-SETUP... NRC to set-up custom selectable range
CSR-INSTL... Factory installation - custom configuration, specify serial # CSR-
CSS-SETUP... NRC to set-up custom special scaling
CSS-34/INSTL... Installation - for 3.5 and 4.0 meters, specify serial # CSS-
COR-SETUP... NRC to set-up Relays in non-standard locations
COR-INSTL... Installation - Relays in non-standard locations, specify serial # COR-

► ACCESSORIES (Specify Serial # for Custom Artwork Installation)

75-DBBZ9648F... Black Bezel for 96x48mm Case
75-DMTCLIPF... Side Slide Brackets (2 pc) - extra set, extra strength
76-DL40G-N4... "Touch" Green LED Faceplate, NEMA 4, Factory install
76-DL40LG-N4... "Touch" Large Green LED Faceplate, NEMA 4, Factory install
76-DL40LR-N4... "Touch" Large Red LED Faceplate, NEMA 4, Factory install
76-DL40R-N4... "Touch" Red LED Faceplate, NEMA 4, Factory install
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
OP-MTLCLIP... Screw Mounting Clips (2 pc) - to screw tighten slide brackets
OP-MTL96X48... Metal Surround Case, includes screw mounting clips
OP-N4X/96X48... 96x48mm clear lockable front cover-NEMA 4X, splash proof

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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