

Optional Green Display & Descriptor

Optional Blue Display & Descriptor

LYNX FAMILY

BX-B31

Lynx Bargraph Meter 31 LED Segments in a 1/16 DIN Case

A versatile, modular bargraph with optional single or dual setpoints.

General Features

- 31 segment AC/DC powered modular compact bargraph.
- 1/16 DIN (96 x 24mm) case easily mounts in thin or thick panels (up to 2").
- Red (std), green (optional) or amber (optional) colors.
- Vertical or horizontal formats.
- External transmitters or signal conditioners can be eliminated by directly connecting the sensor to more than 33 **I-Series** Plug-in Input Signal Conditioning Modules that include:

  – AC Current
  – AC Voltage
  – DC Current
  – DC Voltage
  – Load Cell
  – Pressure
  – Process
  – Prototype
  – Resistance
  – Strain-gage
  –Temperature
  – 4 to 20 mA

- Pre-calibrated **I-Series** Input Signal Conditioning modules, that have span or zero potentiometers, can be interchanged between any **I-Series** compatible meter, without recalibration, because all of the analog scaling and reference circuitry is self-contained within the module.
- 24 V DC excitation is available to power external transmitters and 5 or 10 V DC excitation is available for strain-gages, load cells and resistance bridge type sensors.
- High voltage power supply (PS1) 85 - 265VAC / 95 - 300 VDC Low voltage power supply (PS2) 15 - 48VAC / 10 - 72VDC
- Optional single or dual setpoints with easy adjustment from the front.
- Dual 4A Form "A" relays or one 4A Form "A" and one 9A Form "C" relays.
- Easy configuration of relays as high or low setpoints.
- Proportional brightness mode for increased effective optical resolution.

Input Module Compatibility

☑ **LYNX FAMILY**: More than 33 different Plug-in **I-Series** Input Signal Conditioners are approved for Texmate's Lynx Family of meters. As shown on pages 3 to 5.

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


LYNX

Specifications

Input Specs: .....Depends on input signal conditioner

A/D Converter: .....31 step flash converter

Accuracy: .....±(0.05% of reading + 3 counts)

Temp. Coeff.: .....100 ppm/°C (Typical)

Warm up time: .....2 minutes

Display: .....Thirty-one 0.2" x 0.06" (5.08 x 1.52mm) LED segments. Red display (std), green (opt) or amber (opt)

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

PS1 (std).....**85-265 VAC / 95-300 VDC @ 2.5W**

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

Operating Temp.: .....0 to 60° C

Storage Temp: .....-20° C to +70° 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: .....198 gms (7 oz) 255 gms (9 oz) when packed

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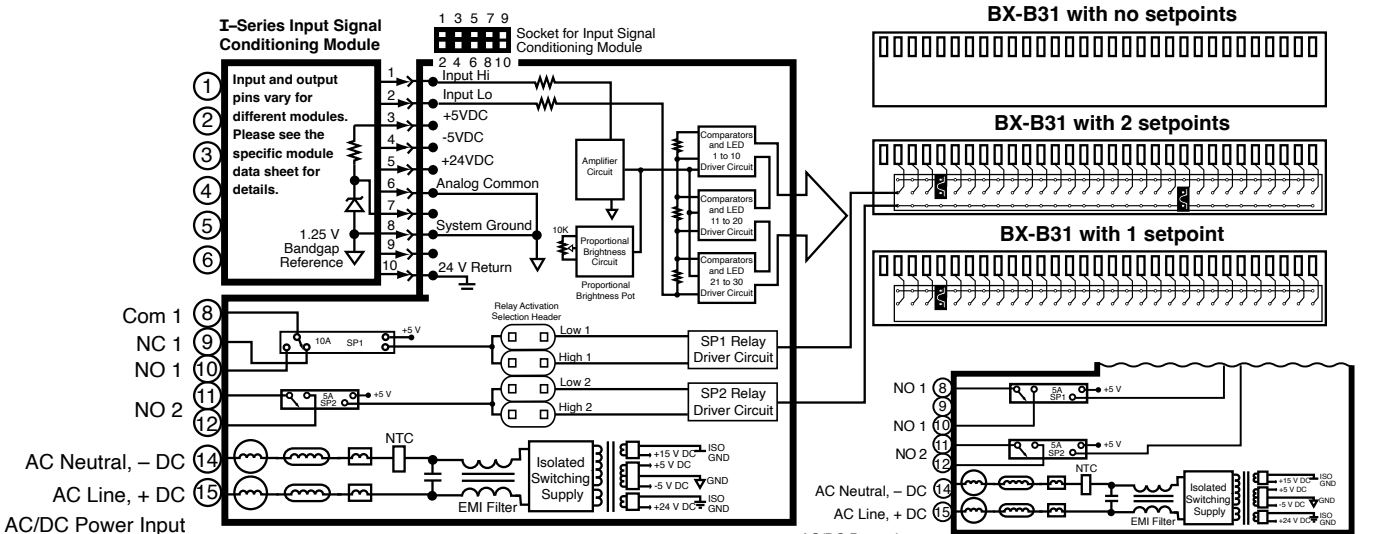
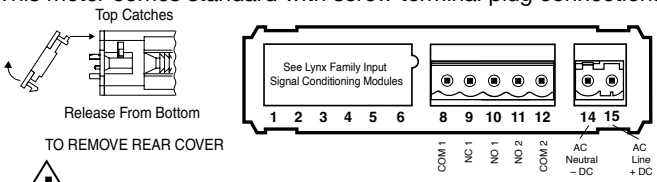
Functional Diagram



Connector Pinouts

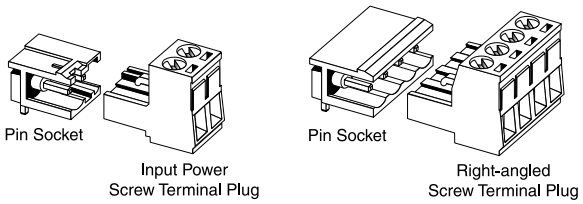
This meter comes standard with screw terminal plug connections.



WARNING: AC and DC input signals and power supply voltages can be hazardous. Do Not connect live wires to screw terminal plugs, and do not insert, remove or handle screw terminal plugs with live wires connected.

Connectors

This meter uses plug-in type screw terminal connectors for all input and output connections. The power supply connections (pins 14 and 15) have a unique plug and socket outline to prevent cross connection. The main board uses standard right-angled connectors.



Pin Descriptions

Pins 1 to 6 - Input Module: See the individual pin out of the input signal conditioning module selected. Usually Pin 1 is the Signal Input High pin and Pin 3 is the Signal Input Low pin. All calibration and scaling functions are performed on the individual input signal conditioner module. See pages 6 and 7.

Pin 8 - Common of 9 Amp Form C or 4 Amp Form A SP1 Relay.

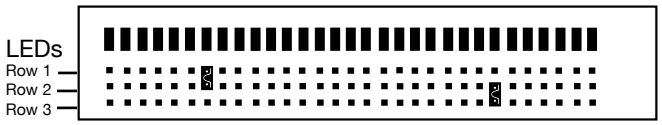
Pin 9 - Normally Closed Contact of 9 Amp Form C SP1 Relay.

Pin 10 - Normally Open Contact of 9 Amp Form C or 4 Amp Form A SP1 Relay.

Pin 11 & Pin 12- Normally Open Contacts of 4 Amp Form A SP2 Relay.

Pin 14 & Pin 15 - AC/DC Power Input: These pins are the power pins of the meter and they only accept a special polarized screw terminal plug that can not be inserted into any other input socket. The standard meter has a auto sensing AC/DC power supply that operates from 85-265 VAC/95-300 VDC (PS1 Std). An optional isolated low voltage power supply that operates from 15-48 VAC/10-72 VDC (PS2) is also available.

Changing the Setpoints From the Front of the Meter

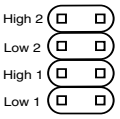


FRONT OF METER WITH BEZEL AND FILTER REMOVED

To adjust the setpoint on the BX-B31 with relays, remove the front bezel and faceplates. Use needlenose pliers to remove and reposition the setpoint jumper clips.

For Setpoint #1: Insert the jumper clip between Row #1 and Row #2, directly below the LED that you wish to activate.

For Setpoint #2: Insert the jumper clip between Row #2 and Row #3, directly below the LED that you wish to activate.



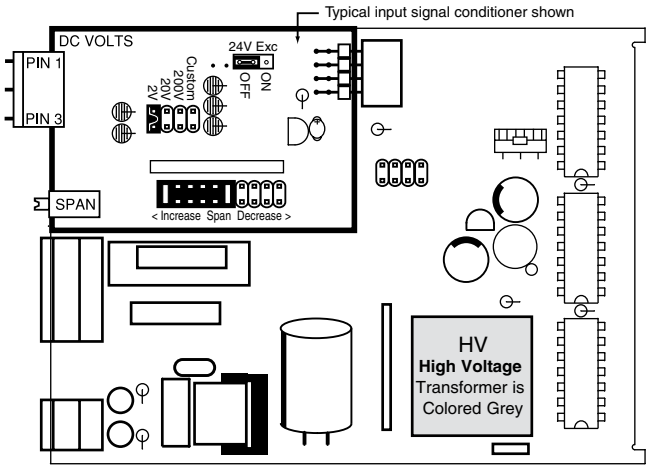
Relay Activation Select Header

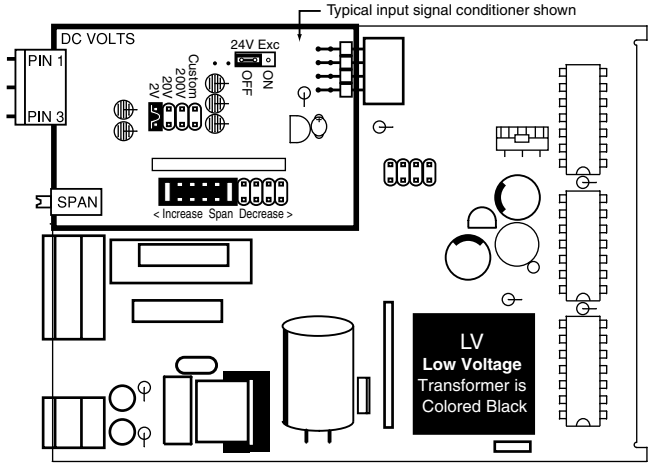
Select High to energize the relay when the setpoint is exceeded. Select Low to energize the relay when the display is below the setpoint.

Proportional Brightness Band Potentiometer

The Proportional Brightness Potentiometer superimposes a proportional brightness band to the leading edge of the bargraph which creates the optical appearance of a pointed arrow ▷. This feature produces a display of infinite resolution. The position of the signal in relation to any two adjacent segments and the scale on the faceplate can be accurately ascertained to within 1%. When the amplitude of the proportional band is adjusted counterclockwise to zero, the smooth proportional advance of the display will be replaced by a step by step movement as each bar is either turned full on or full off.

Component Layout





I-Series Input Signal Conditioning Modules

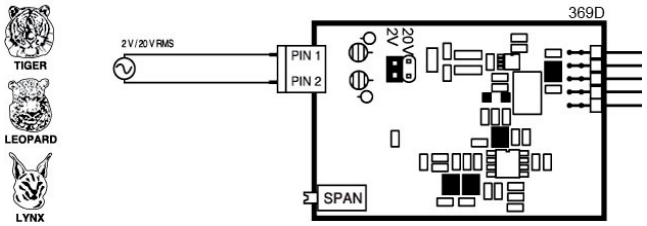
Many additional input modules are available and others are constantly being developed. Check with your local distributor or www.texmate.com for updated information.

Precalibrated **I-Series** input modules, that have span or zero potentiometers, can be interchanged between any **I-Series** compatible meter, without recalibration, because all of the analog scaling and reference circuitry is self-contained within the module. Where appropriate, all the standard ranges shown are designed to be header selectable by the user, and Texmate's unique SPAN ADJUST Header facilitates scaling to almost any required engineering unit. See Input Module Component Glossary and Calibration on pages 6 and 8.

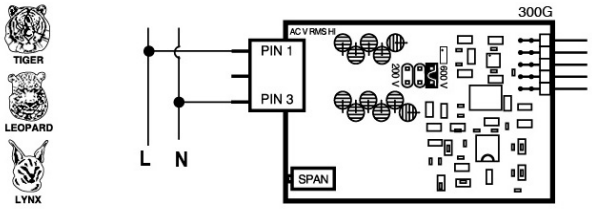
Unless otherwise specified Texmate will ship all modules precalibrated with factory preselected ranges and/or scalings as shown in **BOLD** type. Other precalibrated standard ranges or custom ranges may be ordered. Factory installed custom scaling and other custom options are also available (see Ordering Information, Special Options on last page).

Symbols Indicate Module Compatibility Within Meter Families		
TIGER Family LEOPARD Family LYNX Family	TIGER Family LEOPARD Family LYNX Family	TIGER Family LEOPARD Family LYNX Family
ALL MODELS	**SOME MODELS**	**MODEL SPECIFIC**

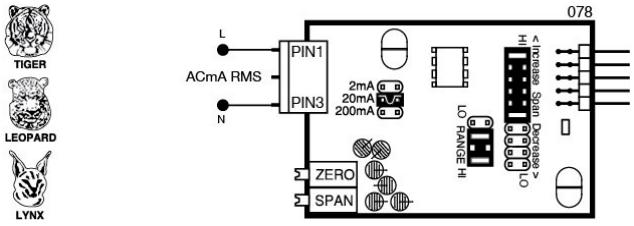
IA07: AC Volts True RMS, **2V**/20V AC



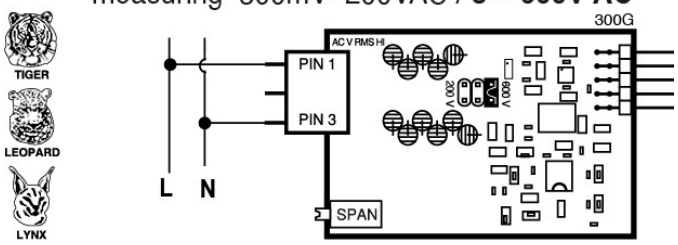
IA3V: AC Volts True RMS, measuring 30mV ~ **3VAC**



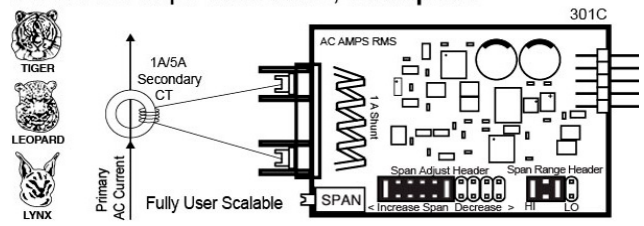
IA08: AC Milliamps True RMS, 2/**20**/200mA AC



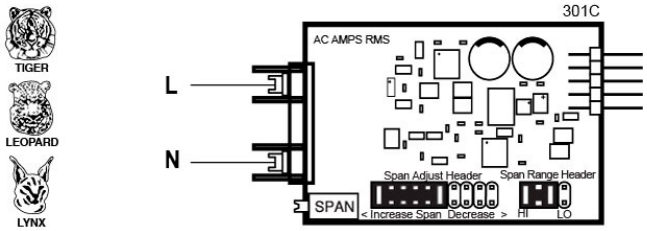
IA06: AC Volts True RMS
measuring 300mV~200VAC / **3 ~ 600V AC**



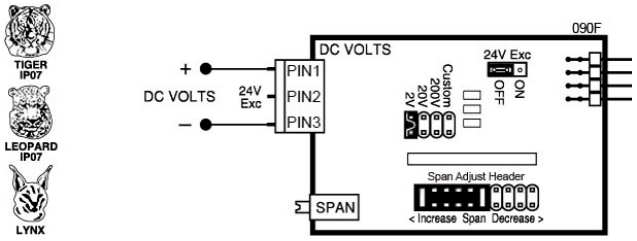
IA09: AC Amps True RMS, **1 Amp AC**
IA11: AC Amps True RMS, **5 Amp AC**



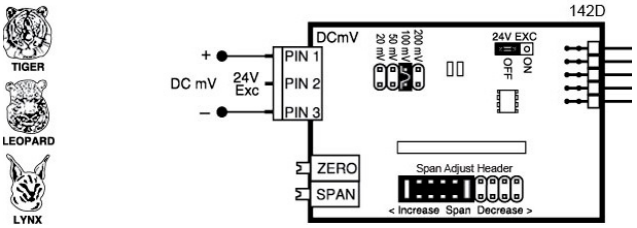
IA12: AC mV True RMS, Measuring 3 ~ **200mV**



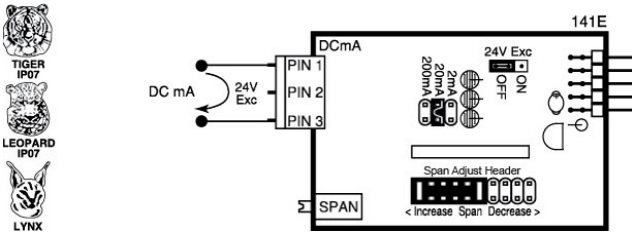
ID01: DC Volts, **2**/20/200V/Custom w/24V DC Exc



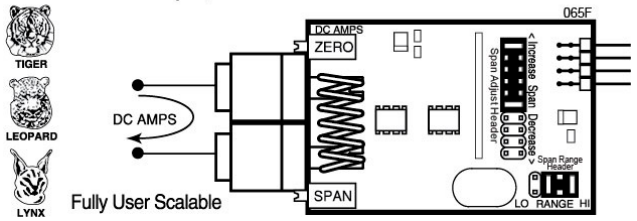
ID02: DC Millivolts, 20/50/**100**/200mV DC w/24V DC Exc



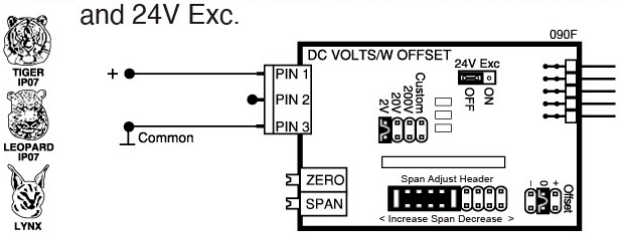
ID03: DC Milliamps, 2/**20**/200mA DC w/24V DC Exc



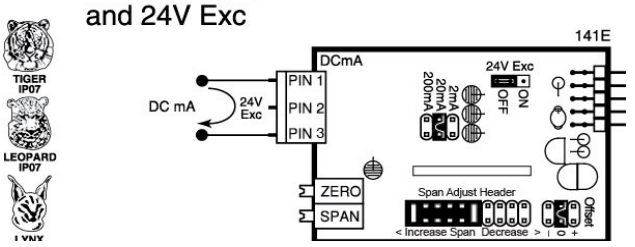
ID04: DC Amps, **5A DC**
ID09: DC Amps, **1A DC**



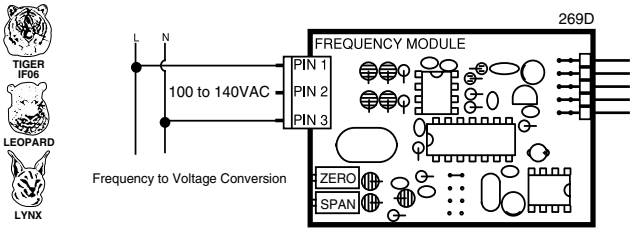
ID05: DC Volts **2**/20/200/Custom V DC With Offset and 24V Exc.



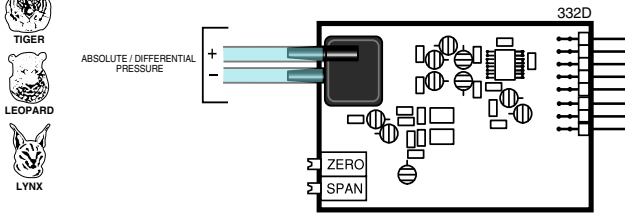
ID07: DC Milliamps, 2/**20**/200mA DC with Offset and 24V Exc



IF02: Line Frequency



IGYZ: Universal Direct Pressure (Absolute or Differential/Gage) See below for ordering code options



Direct Pressure (IGYX, IGYY & IGYZ) Ordering Code Options

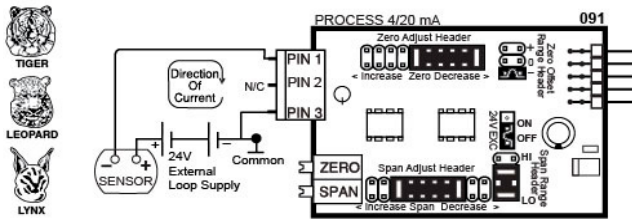
I	G		

→ **For Single Channel IGYX with two digital inputs, the last digit of order code is always X.**

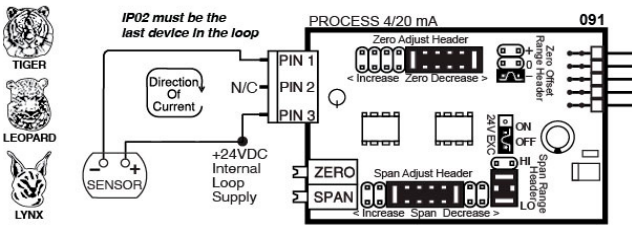
For Universal Direct Pressure IGYZ, the last digit of order code is always Z.

Sensor Range	CH1 Order Code	CH2 Order Code
1 psi Absolute	A	A
1 psi Differential	B	B
5 psi Absolute	C	C
5 psi Differential	D	D
15 psi Absolute	E	E
15 psi Differential	F	F
30 psi Absolute	G	G
30 psi Differential	H	H
100 psi Absolute	J	J
100 psi Differential	K	K

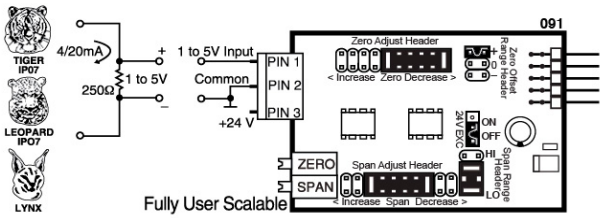
IP01: Process Loop, 4-20mA



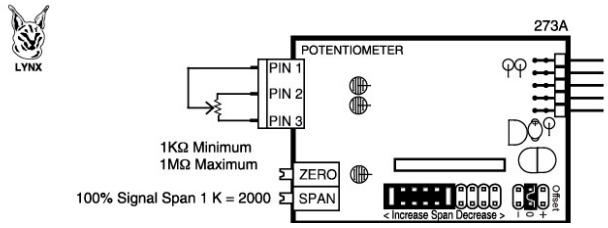
IP02: Process Loop, 4-20mA with 24VDC EXC



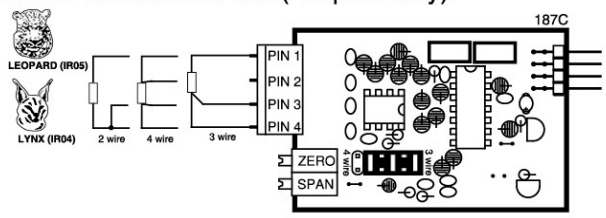
IP03: Process Input, 1-5V DC with Offset, 24V Exc



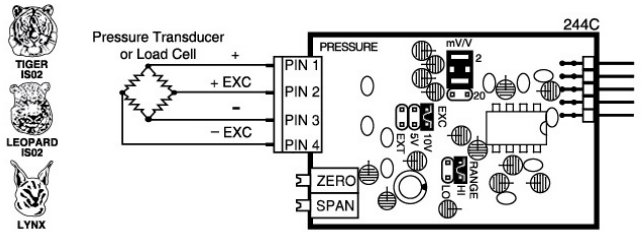
IR02: 3 wire Potentiometer 1KΩ min (0-F.S.)



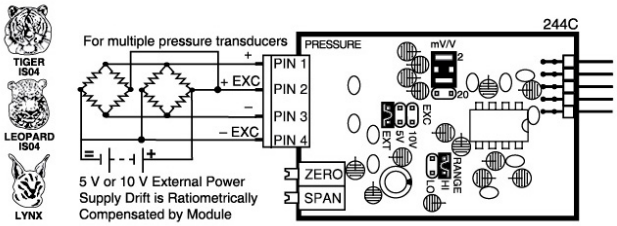
IR04: Resistance 2KΩ (Lynx only)
IR05: Resistance 2KΩ (Leopard only)



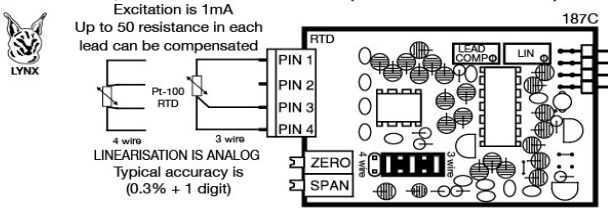
IS05: Pressure/Load Cell 20/**2mV/V**, 5/**10V** Exc 4-wire



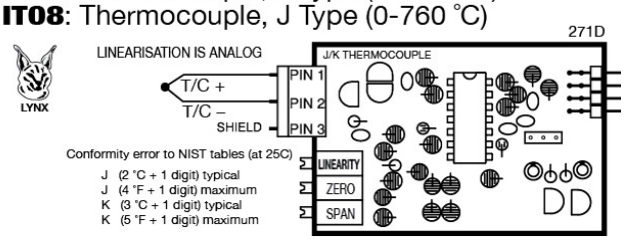
IS06: Pressure/Load Cell Ext Exc., 20/**2mV/V**, 4-wire



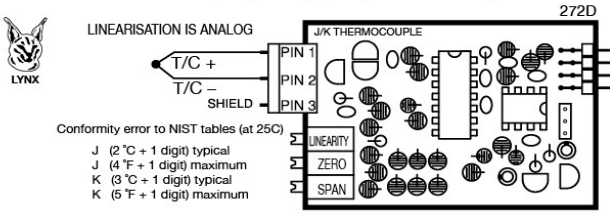
IT03: RTD, 100 Pt. 2/3/4-wire (-200 to 800C)
IT04: RTD, 100 Pt. 2/3/4-wire (-200 to 1470F)
IT05: RTD, 100 Pt. 2/3/4-wire (-199.9 to 199.9F)
IT14: RTD, 100 Pt. 2/3/4-wire (-199.9 to 199.9C)



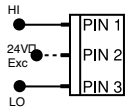
IT06: Thermocouple, J Type (0-1400 °F)
IT08: Thermocouple, J Type (0-760 °C)



IT07: Thermocouple, K Type (0-1999 °F)
IT09: Thermocouple, K Type (0-1260 °C)

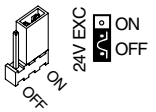


Input Module Component Glossary



Input and Output Pins

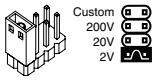
On most modules Pin 1 is the Signal High input and Pin 3 is the Signal Low input. Typically Pin 2 is used for Excitation Voltage output.



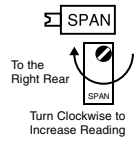
24V DC Output Header

On some modules this header enables a 24V DC 25mA (max) Excitation/Auxiliary output to be connected to Pin 2.

INPUT RANGE Header



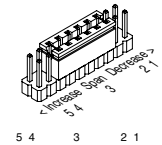
Range values are marked on the PCB. Typically two to four positions are provided, which are selected with either a single or multiple jumper clip. When provided, a custom range position is only functional when the option has been factory installed.



SPAN Potentiometer (Pot)

If provided, the 15 turn SPAN pot is always on the right side (as viewed from the rear of the meter). Typical adjustment is 20% of the input signal range.

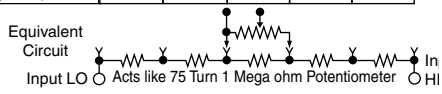
SPAN ADJUST Header



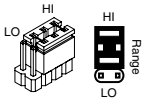
This unique five-position header expands the adjustment range of the SPAN pot into five equal 20% steps, across 100% of the input Signal Span. Any input Signal Span can then be precisely scaled down to provide any required Digital Display span from 19999 counts to 0001 (one count).



SPAN Adjust Header position	1	2	3	4	5
SPAN Pot %	20%	20%	20%	20%	20%
Signal Span %	20%	40%	60%	80%	100%



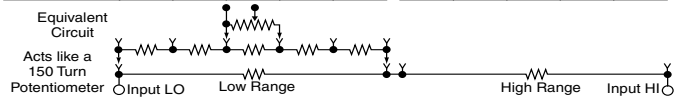
SPAN RANGE Header

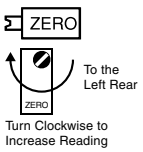


When this header is provided it works in conjunction with the SPAN ADJUST Header by splitting its adjustment range into a Hi and a Lo range. This has the effect of dividing the adjustment range of the SPAN pot into ten equal 10% steps across 100% of the input Signal Span.



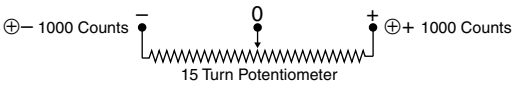
SPAN Adjust Header position	1	2	3	4	5	1	2	3	4	5
SPAN Pot %	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Signal Span %	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%



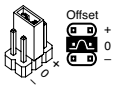


ZERO Potentiometer (Pot)

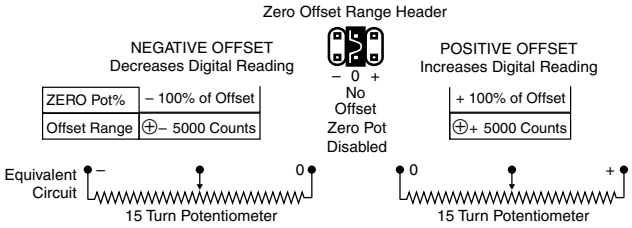
If provided, the ZERO pot is always to the left of the SPAN pot (as viewed from the rear of the meter). Typically it enables the input signal to be offset ±5% of full scale (-1000 to +1000 counts).



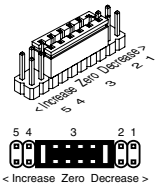
ZERO OFFSET RANGE Header



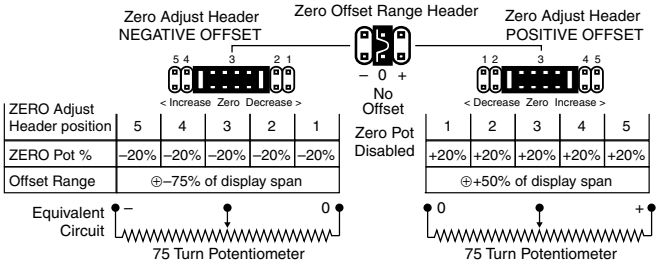
When provided, this three position header increases the ZERO pot's capability to offset the input signal, to ±25% of the digital display span. For example a Negative offset enables a 1 to 5V input to display 0 to full scale. The user can select negative offset, positive offset, or no offset (ZERO pot disabled for two step non-interactive span and offset calibration).



ZERO ADJUST Header



When this header is provided, it works in conjunction with the ZERO OFFSET RANGE Header, and expands the ZERO pot's offset capability into five equal negative steps or five equal positive steps. This enables virtually any degree of input signal offset required to display any desired engineering unit of measure.



Input Module Calibration



WARNING: AC and DC input signals and power supply voltages can be hazardous. Do Not insert, remove or handle modules with live wires connected to any terminal plugs.

Note: I-Series modules with analog calibration and scaling capability can be interchanged between any compatible meter without recalibration. However, meters that also have software scaling and calibration capabilities such as meters in the Leopard and Tiger families or Lynx

Q-Series (Quickset programming), must have their software scaling set to unity gain.

Basic standard range calibration of direct reading modules that utilize either Auto Zero or a ZERO pot, an INPUT RANGE Header and or a SPAN pot.

1 If the module has an INPUT RANGE Header, reposition the jumper clip to select the desired input signal range.

2. Apply a zero input or short the input pins. The display will auto zero, or if the module has a ZERO pot, it should be adjusted until the display reads zero.

3 Apply a known input signal that is at least 20% of the full scale input range and adjust the SPAN pot until the display reads the exact input value. The Lynx family of Q meters can accept negative signals also, and may be scaled for inputs from -50% to +100% of the range selected on the input signal conditioning module.

Wide range scaling, in engineering units not requiring offsets, with modules that utilize auto-zero or a ZERO pot, a SPAN RANGE Header and or a SPAN ADJUST Header.

Texmate's unique SPAN ADJUST and SPAN RANGE Headers provide

Input Module Calibration Procedures Continued

the circuit equivalent of an ultra-precision one megohm 75 or 150 turn potentiometer that can infinitely scale down any Input Signal SPAN to provide any Display Span from full scale to the smallest viewable unit.

If the module has an INPUT RANGE Header, and the required full scale Display Span (digital counts or bargraph segments) is to be larger than the directly measured value of the input Signal Span, then the next lower range on the INPUT RANGE Header should be selected. The resulting over range Signal Span is then scaled down, by selecting the position of the SPAN RANGE Header and or the SPAN ADJUST Header, which will reduce the input Signal Span to a percentage, that the required Display Span can be reached by calibration with the SPAN pot.

Example A: Using a BX-B31 bargraph meter

Input signal 0 to 10 V to read zero to full scale.

Signal Span = 10 V, Display Span = 30 segments

1 Select the 2 V INPUT RANGE Header position. The standard direct scaling will provide a display of 30 segments with an input of only 2 V which is (2÷10) =20% of the examples 10 V Signal Span.

2 To scale down the Signal Span to 20% select the 20% Signal Span position on the SPAN ADJUST Header (position 1) or if the module has a SPAN RANGE Header, select (LO Range) and 20% Signal Span position on the SPAN ADJUST Header (position 2).

3 Apply a zero input or short the input pins. The display will auto zero, or if the module has a ZERO pot, it should be adjusted until the display reads zero.

4 Apply 10 V and adjust the SPAN pot until the display reads full scale.

Large offset scaling and calibration of process signal inputs with modules that utilize ZERO ADJUST Headers and or ZERO OFFSET RANGE Headers.

Texmate's unique ZERO OFFSET RANGE Header enables the use of a simple two step scaling and calibration procedure for those process signals that require large offsets. This eliminates the back and forth interaction, between zero and span settings, that is often required to calibrate less finely engineered products.

The first step is to set the ZERO OFFSET RANGE Header to the center position (No Offset) and scale down the Input Signal Span to a percentage that will enable calibration with the SPAN pot to reach the required Display Span.

The second step is to set the ZERO ADJUST and or ZERO OFFSET RANGE Header to provide a positive or negative offset so that calibration with the ZERO pot will offset the Display Span to produce the required display reading.

Example B: Using a BX-B31 Bargraph meter.

Input signal 1 to 5 V to read zero to full scale.

Signal Span = 4 V, Display Span = 30 segments

1 If the module has an INPUT RANGE Header the 2 V position should be selected. This will provide a display of 30 segments for an input of 2 V which is (2 ÷ 4) = 50% of the examples 4 V signal span. To scale down the Signal Span to 50% select the next higher 60% Signal Span position on the SPAN ADJUST Header (position 3).

2 If the module is a Process Input 1-5 V DC type, select the (Hi Range) position on the SPAN RANGE Header and the 100% Signal Span position on the SPAN ADJUST Header (position 5, max increase). This will provide a display of 30 segments for an input of 4 V which is 100% of the examples 4 V Signal Span.

3 Set the ZERO OFFSET RANGE Header to the center position (no offset). Apply 1 V and adjust the SPAN pot until the display reads 8.5 segments . A 4 V input would then read 30 segments.

4 Set the ZERO OFFSET RANGE Header to the negative offset position. If the module has a ZERO ADJUST Header select the position that will provide a negative offset of ≈ 25 segments. Apply 1 V and adjust the ZERO pot until the display reads zero. Apply 5 V and check that the display reads full scale.

Example C: Using a BX-B31 Bargraph meter

Input signal 4 to 20 mA to read zero to full scale

Signal Span = 16 mA, Display Span = 30 segments

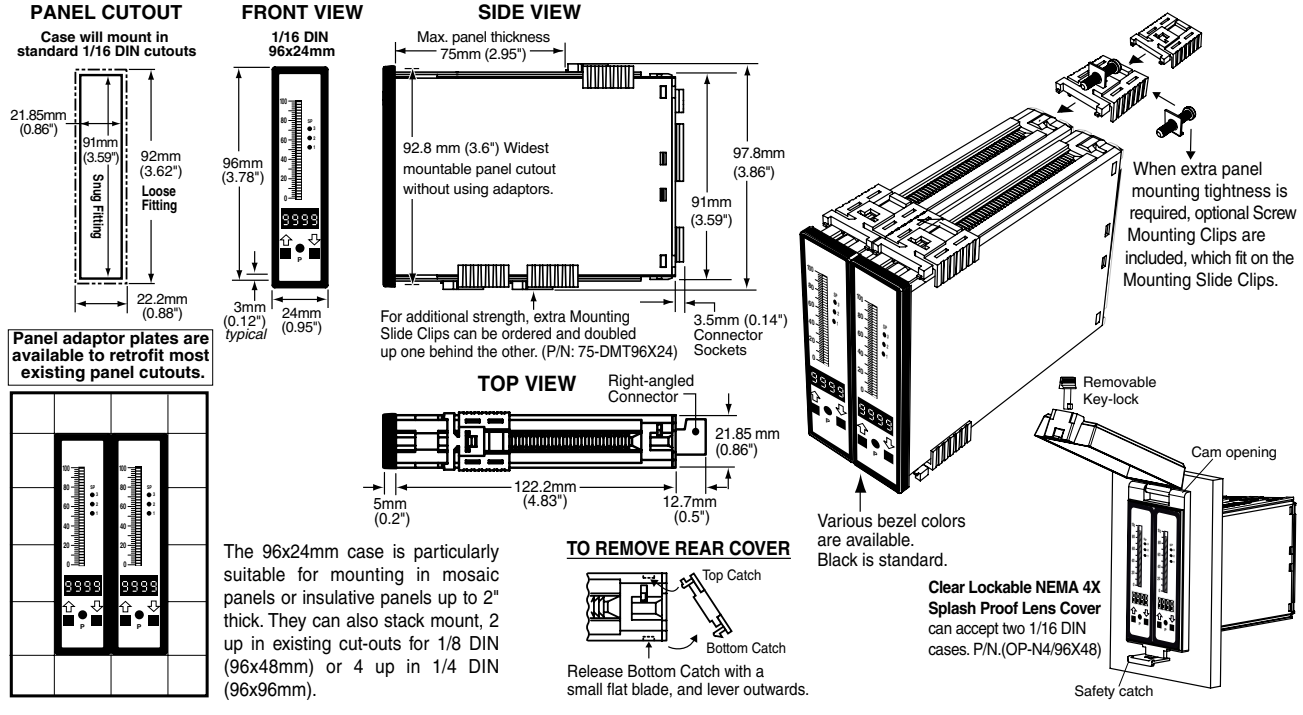
1 The full scale Signal Span of the Process Input 4-20 mA modules is 0 to 20 mA for a full scale Display Span of 0 to 30 segments.

2 Select the (Lo Range) Position on the Span Range Header and the 70% Signal Span position on the SPAN ADJUST Header (position 2).

3 Set the ZERO OFFSET RANGE Header to the center position (no offset). Apply 4 mA and adjust the SPAN pot until the display reads 8.5 segments. A 16 mA input would then read 30 segments.

4 Set the ZERO OFFSET RANGE Header to the positive offset position. If the module has a ZERO ADJUST Header select the position that will provide a negative offset of ≈ –8.5 segments. Apply 4 mA and adjust the ZERO pot until the display reads zero. Apply 20 mA and check that the display reads full scale.

Case Dimensions



The 96x24mm case is particularly suitable for mounting in mosaic panels or insulative panels up to 2" thick. They can also stack mount, 2 up in existing cut-outs for 1/8 DIN (96x48mm) or 4 up in 1/4 DIN (96x96mm).

Ordering Information

BASIC MODEL #		DISPLAY		POWER SUPPLY		INPUT MODULES		RELAY OUTPUT		OPTIONS / ACCESSORIES
BX-B31	–		–		–		–		–	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.

Ordering Example: BX-B31-VR-PS1-IA01-OA2, the 2 OA's are, ZR and a 75-DMT96X24

▶BASIC MODEL NUMBER

BX-B31 . . 96x24mm, Lynx, 31 Segment Bargraph . . . . .

Standard Options for this Model Number

Order Code Suffix *Description*

▶DISPLAY

HB . . .31 Segment Blue LED Bargraph, Horizontal
HG. . .31 Segment Green LED Bargraph, Horizontal . . . . . .
HR . . .31 Segment Red LED Bargraph, Horizontal . . . . . .
VB . . .31 Segment Blue LED Bargraph, Vertical . . . . . .
VG . . .31 Segment Green LED Bargraph, Vertical . . . . . .
VR . . .31 Segment Red LED Bargraph, Vertical . . . . . .

▶POWER SUPPLY

PS1 . . 85-265VAC/95-300VDC . . . . . .
PS2 . . 15-48VAC/10-72VDC . . . . . .

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

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

IA3V . . .AC-Volts True RMS **30mV-3V AC**. . . . . .
IA05 . . .AC-Amps Scales RMS, **0-5 Amp AC (0-100.00)** . . . . . .
IA06 . . .AC-Volts True RMS, 300mV~200V AC/**3~600V AC** . . . . . .
IA07 . . .AC-Volts True RMS, **2V**/20V AC. . . . . .
IA08 . . .AC-mA True RMS, 2/**20**/200mA AC . . . . . .
IA09 . . .AC-Amps True RMS, **0-1 Amp AC (0-100.00)** . . . . . .
IA11 . . .AC-Amps True RMS, **0-5 Amp AC (0-100.00)** . . . . . .
IA12 . . .AC-Millivolt, True RMS, **3~200mV 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 5 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 . . . . . .

IR02 . . .3-Wire Potentiometer 1KΩ min (0-F.S.). . . . . .
IR04 . . .Resistance 2KΩ . . . . . .

IS05 . . .Pressure/Load Cell 20/2mV/V, 5/10V Exc. 4-wire. . . . . .
IS06 . . .Pressure/Load Cell 20/2mV/V, External Exc.,4-wire . . . . . .

IT03. . .RTD, 100Ω Pt. 2/**3**/4-wire **(-200 to 800°C)**. . . . . .
IT04. . .RTD, 100Ω Pt. 2/**3**/4-wire **(-200 to 1470°F)**. . . . . .
IT05. . .RTD, 100Ω 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, 100Ω Pt. 2/**3/**4-wire **(-199.0 to 199.0°C)** . . . . . .

Special Options and Accessories (OA's)

Part Number *Description*

▶SPECIAL OPTIONS (Specify Input & Req. Reading)

ZR . . . . . .Rnage Change from Standard Range shown in BOLD Type
ZS . . . . . .Custom display scaling within std.ranges . . . . . .

▶ACCESSORIES

75-DBBZ96X24. Black Bezel for 96x24mm Case. . . . . .
75-DMTC96X24 Side Slide Brackets (2 pc) - extra set, extra strength .
DN.CAS96X24L 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 . .
OP-PMA/SWB-2 Switch Board Panel Mounting Adapter 2 Meters . . .
OP-PMA/SWB-3 Switch Board Panel Mounting Adapter 3 Meters . . .
75-PMMSET . . . Mounting Screw Set . . . . . .
OP-MTL96X24 . .Metal Surround Case . . . . . .

75-DESCRIPTR. .Clear adhesive descriptors label for face plate. . . .
Z-DESCRIPTOR .Custom Meter Descriptor . . . . . .
OP-LABEL. . . . . .Add a customer's product code to the meter label

ART-NRC-DEC . .NRC for artwork & set-up Faceplate/Desc . . . . . .
ART-FS-001 . . . .Install Custom Faceplate per meter - 1 color. . . . .
ART-FS-002 . . . .Install Custom Faceplate per meter - 2 color. . . . .

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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