

# Short Form Catalog With Prices

**Modular Families**



In DIN Cases



Traditional NEMA STYLE USA CASE



Mini Case



**Products with Modular Input Signal Conditioning** page

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# An Overview of the Awesome Power of the Tiger 320 Series

The Tiger 320 Series of 32-bit Programmable Meter Controllers incorporates, in one instrument, all the different functions required by today's automation and process control applications.

## 1 Tiger 320 32-Bit Operating System

A virtual toolbox of selectable and programmable application software functions are embedded in the Tiger 320 Operating System. They integrate seamlessly with a truly vast array of modular input and output hardware options.

*Embedded Application Software Includes:*

- Multi-channel Inputs In Many Combinations
- Full Floating-point Maths
- Cross Channel Math (A+B, A-B, AxB, A/B)
- Square Root, Inverse and Log of Input
- 4 x 32 Point Or 1 x 125 Point Linearization Table
- Smart Auto Zero with Programmable Capture Band, Rate of Change and Aperture Window for Weighing Applications
- Set Tare Reset Tare for Batching
- Smart Quick Response Averaging
- Smart Timer and Time Integration Functions
- Time and Event-based Sequencing
- Polynomial Calculations
- Remote Reset of Any Function
- Dual Totalizers
- Dual PID

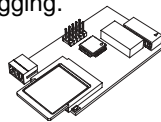
## 2 Data Logging and Memory Options

Up to 1MB of non-volatile on-board memory can be installed for (Black Box) endless loop recording. Up to 4000 data records can be continuously stored to provide before and after analysis of any process fault condition.

- Data log from 4 channels.
- Data log from 2 channels with date & time stamp.
- Log / print from setpoint or timer.

A Plug-in I/O Module is available with removable Flash Card Memory for high-capacity or long-term data logging.

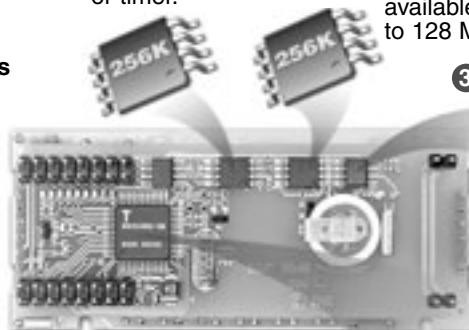
Flash Cards are available from 4 to 128 Meg.



## 3 Real-time Clock



Optional Real-time clock with date and time stamp.  
15 year lithium battery.



## 4 Powerful Custom Macro Programming Capability

Texmate's BASIC to Tiger 320 Macro-language Compiler can quickly Convert your special metering, control and automation ideas into reality.

This powerful easy to use development system enables programs to be written in BASIC utilizing any combination of the hundreds of functions and thousands of registers embedded in the Tiger 320 Operating System. When your BASIC program is compiled into the Tiger 320 Macro-language it is error checked and optimized. There are also numerous off-the-shelf application specific programs available. Many only need the blanks to be filled in to use them and this does not require any knowledge of BASIC.



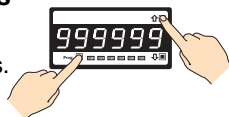
Scrolling annunciator messages can be programmed to appear with any setpoint activation, selected events or logic inputs.



## 5 Programmable Front Panel Controls

**Programmable Front Panel Controls**

The front panel buttons can be used to control or program any standard functions.

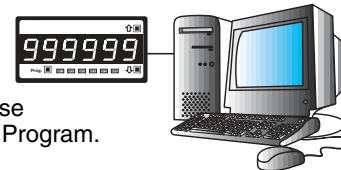


They can also be programmed to only access and display specifically designated functions, such as Tare, Auto-Cal or Print on Demand.

## 6 Configuration & Programming from a PC

**PC Programming**

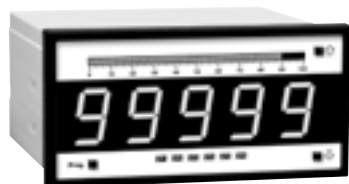
Program the meter from a PC with Texmate's easy to use Tiger 320 Configuration Utility Program.



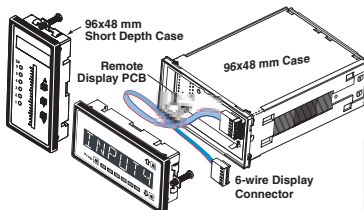
## 7 A Wide Selection of Display Formats & 8 Case Sizes to Suit any Application

Single or multiple LED or LCD displays  
Numeric, Alpha Numeric and Bargraph

144x72mm 9/32 DIN



96x48mm 1/8 DIN



48x96mm 1/8 DIN



36x144mm 9/64 DIN



648x144mm 4" LED Remote Display  
5 or 6 digit  
Driven by RS485 from any Tiger 320

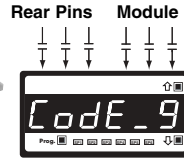


### 8 22 Opto-Isolated I/Os on Plug-in Module & 6 Onboard Programmable I/O Logic Ports

- 6 Inputs & 16 Outputs or 6 Inputs & 6 Outputs
- Fully Programmable

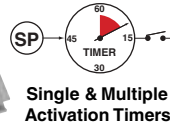
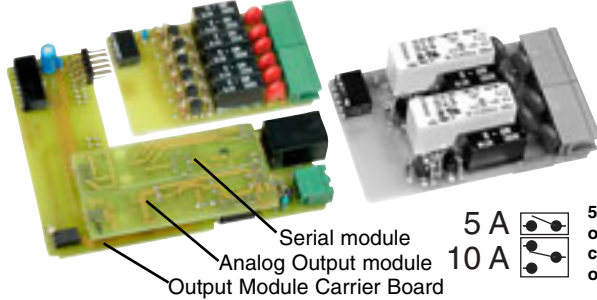


Connects to DIN Rail terminal block module with 3M IDC cable



Three logic level inputs are provided on the module input header and three rear input pins are provided that can be programmed to STOP/START/RESET almost any function including: set tare, reset tare, relays, totalizers, print output, data logging, peak, valley, or any register from an external contact closure.

### 9 6 Super Smart Setpoints - 8 Selectable Functions - 7 Programmable Timer Modes



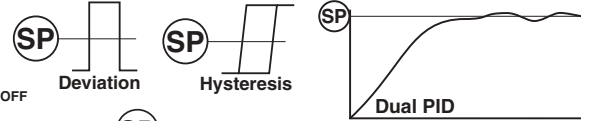
Single & Multiple Activation Timers



5 Amp and 10 Amp Relays or optional SSR Outputs can be energized above or below setpoints

#### 7 Multi Function Interval Timers on all 6 setpoints

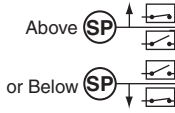
- Normal .....Adjustable Delay On Make / Adjustable Delay On Break
- 1-Shot ON .....Adjustable Delay On Make / Adjustable Min ON-Time
- 1-Shot OFF.....Adjustable Delay On Break / Adjustable Min OFF-Time
- Pulse ON .....Adjustable Delay On Make / Adjustable Max ON-Time
- Pulse OFF .....Adjustable Delay On Break / Adjustable Max OFF-Time
- Repeat ON .....Adjustable ON-Time / Adjustable OFF-Time
- Repeat OFF .....Adjustable OFF-Time / Adjustable ON-Time



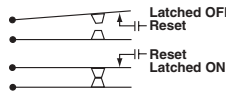
Dual PID

### 10 Scrolling Annunciator

Scrolling Annunciator up to 99 Characters long is available on all 6 setpoints for Alphanumeric Displays with Fill-in-the-blanks Macro.



Activation



Relay Latching



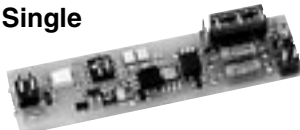
SETPOINT TRACKING

\*99 CHARACTER SCROLLING DISPLAY ON ALL SETPOINTS



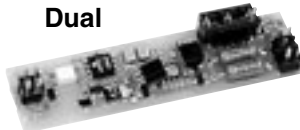
### 12 16-bit Isolated Analog Outputs

Single



0 ~ 4-20mA or 0-10V

Dual

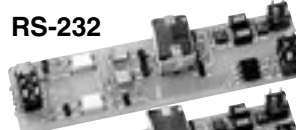


0-10V & 0-10V

Programmable 0~4 to 20 mA or 0 to 10 V for retransmission, 4-20 mA loops, drive valve actuators, remote controllers & displays, multi-loop feedback and PID output.

### 11 Serial Communications & Printer Output

RS-232



RS-485



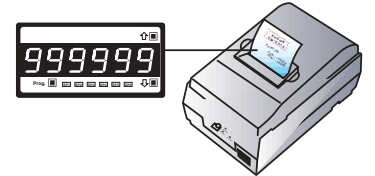
Selectable Communication Modes include:

- ASCII
- Modbus
- Ethernet (TCP/IP)
- DeviceNet (with optional carrier board installed)

Interface directly with PCs (using Window's terminal program), PLCs, or any Epson compatible serial printer.

Serial Printer Output

Smart printer driver makes simple serial printers look intelligent.



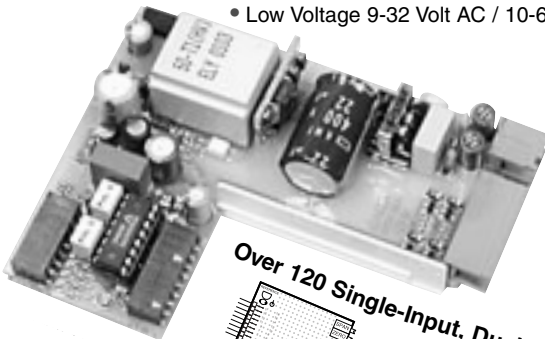
Meter to Meter Communication.

Direct meter to meter communication enables two meters to share data and resources.



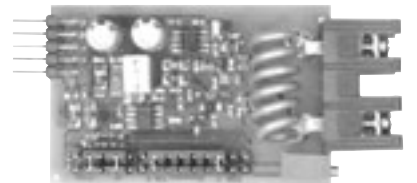
### 13 Auto-sensing AC/DC Power Supply

- High Efficiency CE tested Auto Sensing AC/DC power supplies
  - Standard 85-265 Volt AC / 95-370 Volt DC
  - Low Voltage 9-32 Volt AC / 10-60 Volt DC



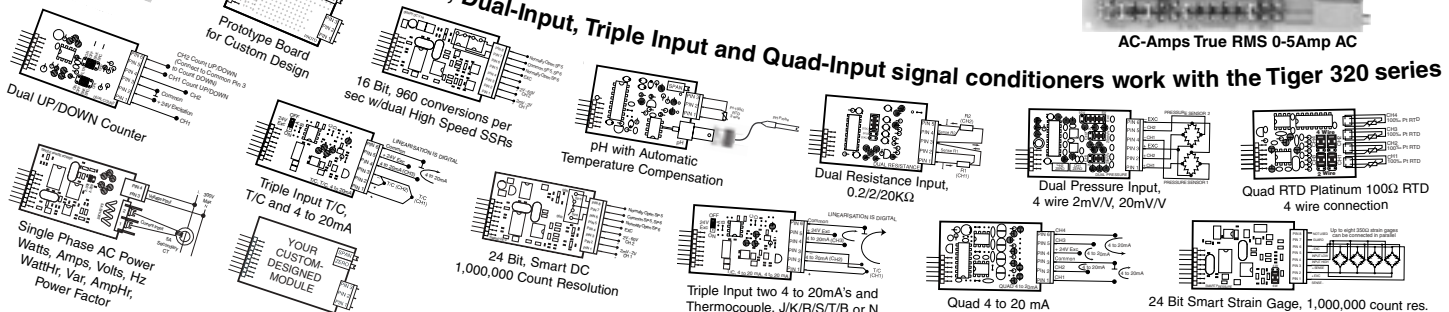
### 14 Over 120 Different Input Signal Conditioning Modules

- Choose from over 120 different single, dual, triple and quad input signal conditioners.
- Mixed function and smart modules with their own A/Ds, co-processors, SSRs and I<sup>2</sup>C Bus outputs are available to suit almost any application.



AC-Amps True RMS 0-5Amp AC

Over 120 Single-Input, Dual-Input, Triple Input and Quad-Input signal conditioners work with the Tiger 320 series



# Harnessing the Power of the Tiger 320

A combination of modular hardware and software resources enable Tiger 320 Series Programmable Meter Controllers (PMCs) to be easily configured as a cost effective solution for the most simple or the most complex of applications.

A review of your Project's objectives, its physical layout, the proposed sensors and control outputs will enable you to select the optimum configuration of the Tiger 320 PMC's unique hardware and software capabilities.

## Input Signals & Sensors

### 4-20 mA or Sensor Direct

Unless sensors are located at a far distance, the greatest accuracy and best performance is usually obtained by connecting sensors directly to the Tiger 320, which will then function as the primary measurement device.

There are more than 120 Tiger compatible input signal conditioning modules, with the appropriate excitation outputs, to suit almost any type of sensor or combinations of up to 4 sensors.

In most cases, sensors with a 4-20 mA output are more costly, and when a separate 4-20 mA transmitter is used, signal conversion, drift, and calibration inaccuracies are introduced.

Some Tiger input modules combine direct sensor inputs with 4-20 mA inputs, enabling both local and far distant sensor inputs to be combined.

### Sensor Linearization or Compensation

The performance of many sensors can be greatly enhanced or expanded with linearization and/or compensation. Sensors may be compensated for temperature, frequency, altitude, humidity and mechanical position, to name just a few parameters.

Tiger PMCs with 32 kilobits or more of memory provide up to four 32-point user defined linearization tables or one combined 125-point table.

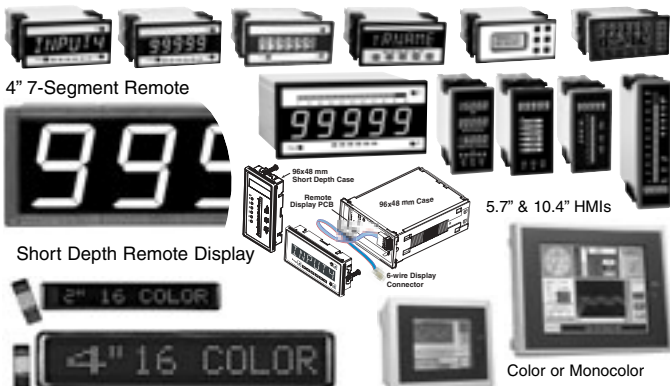
Many compensation methods can be implemented with the standard cross channel math capabilities of the Tiger's 32-bit operating system. Complex three-dimensional compensation can also be implemented using the powerful macro programming capability.

The serial number and calibration date of a sensor can be loaded into the meter. The serial number, linearization tables, and compensation factors of a newly calibrated sensor can then be saved for future reloading, either serially through a PC or directly through the web via an Ethernet port.

Although there are numerous input modules with combinations of various input signals, some inputs such as watts or pH are provided on input modules dedicated to a single function. Combining these inputs with each other signals two or more Tiger meters can serially communicate, and be configured to share their data and processing resources.

## Display Options

Tiger PMCs have a large range of display options, including digital and alphanumeric LCDs, LEDs and Touch Panel HMIs.



### LED or LCD Displays

LED displays are a lower cost and popular display option. They operate over the largest temperature range, have better viewing angles and viewing distances, and have the longest operational life. However, red LEDs are difficult to read in direct sunlight without a shade hood and consume more power. Green LEDs and backlit LCD displays can be more easily read in direct sunlight.

The Tiger range can be ordered with red or green LEDs. LCD displays are also available, with or without back-lighting.

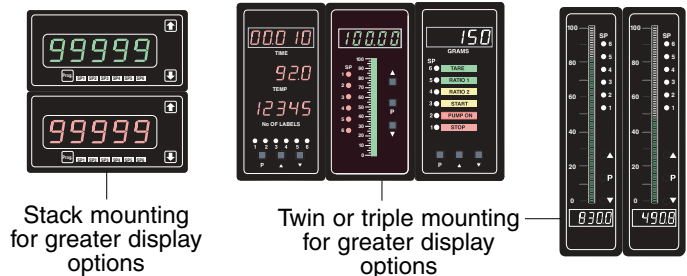
### Numeric or Alphanumeric Displays

Generally, numeric displays are a lower cost option than alphanumeric displays. The Tiger range supports a full 7-segment numeric and 14-segment alphanumeric alphabet of English letters and Arabic numerals. Where complex text messaging or alarm annunciation is required, we recommend using the 14-segment alphanumeric option.

### Single or Multiple Display

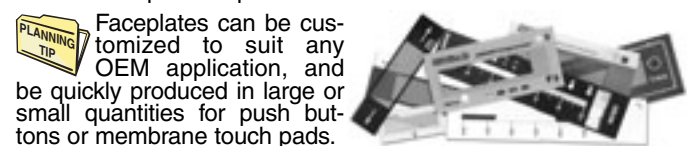
The Tiger meter has four input channels and can be configured to display many different inputs or results. These can be viewed constantly on the operational display, or on demand in one of the view modes by pressing a button. Some applications require multiple values to be displayed simultaneously. With single, dual, or triple displays, and single displays with 51 or 101-segment bargraph combinations, we have a large range of display options to choose from.

Tiger meters can communicate with each other to share their data and processing resources and be stack or twin mounted to provide a wider range of display options.



### Push Button or Membrane Touch Pads

Tiger PMCs are shipped as standard with high usage hard plastic push buttons. An optional clear lens cover that opens on a cam hinge with a key lock can provide full NEMA 4 or IP65 dust and water proofing. Alternatively, an optional membrane touch pad faceplate can be ordered.



## Control Outputs & I/O Logic

### Electromechanical Relays or Solid State Control Outputs

Tiger PMCs have a wide selection of control outputs to choose from. The decision on which control output to choose depends on the current and the switching frequency.

Electromechanical relays are a popular choice for most control outputs. Tiger output modules are available with combinations of two 10 amp form C and two to six 5 amp form A relays that can be used to directly drive fractional HP motors or actuators.

The limitation of electromechanical relays is switching speed. If a relay needs to operate in less than 30 ms, or be cycled faster than .5 cpm, it is advisable to select an output module with solid state relays (SSR) or open collector outputs (OC), that can drive external high current SSRs.

# Harnessing the Power of the Tiger 320

## DECISION **PID or On/Off Control**

Depending on the process to be controlled, either PID or on/off control should be selected. If the process variables are reasonably consistent, then the on/off control is generally more than adequate and easier to implement. Super smart setpoint control software supports many selectable functions, such as Hi or Lo activation, Latching, Hysteresis, Tracking, Register Resetting and 7 Multi-function internal Timers on all setpoints.

**PLANNING TIP** Control systems with large lag and lead times are not suitable for on/off control and tend to overshoot and undershoot. PID is needed to stabilize and control these systems. One of the many powerful setpoint functions provided by the Tiger 320 Operating System is single or dual PID.

## DECISION **Retransmission 0-10V or 4-20mA**

Tiger PMCs can have an optional single (0-10 V or 0/4-20 mA) or dual (0-10 V) analog output module installed. The isolated 16-bit output is fully scalable and highly accurate. With a compliance of up to 500Ω at 20mA, the 4-20 mA output can be used over very long distances and still drive more than one output device, such as a PID controlled valve positioner.

**PLANNING TIP** The analog outputs can be reversed to output 20mA to 4/0 or 10 to 0VDC. They can be scaled across any portion of the digital range, up to full scale. The output can be programmed to swing 0 to 20mA or 0 to 10V in one digital count to drive external logic or SSRs as additional setpoints. Under Macro Program Control, the analog outputs can be programmed to produce pulses or even sinewaves.

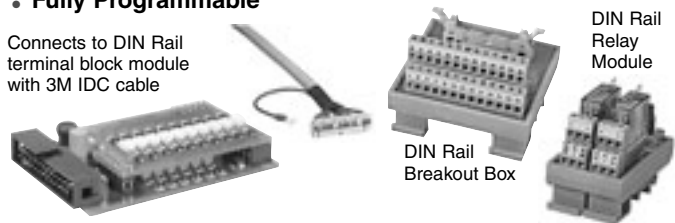
## DECISION **I/O Logic, Rear Panel or Breakout Box**

The Tiger Operating System has many built-in logic functions that can be used to develop sophisticated control systems. The Tiger PMC has three logic inputs/outputs available via the LOCK, HOLD, and CAPTURE pins, and three logic I/Os are available for input module use via pins D1, D2 and D3.

**PLANNING TIP** More complex I/O intensive applications require an opto-isolated I/O plug-in module, which supports six inputs and up to 16 outputs. This module can connect to an external Breakout Box that is DIN Rail mountable with screw terminal blocks. There are also compatible DIN Rail mounting electromechanical relays and SSR modules.

- 6 Inputs & 16 Outputs or 6 Inputs & 6 Outputs
- Fully Programmable

Connects to DIN Rail terminal block module with 3M IDC cable



## Serial Communication

The easiest way to configure or program a Tiger PMC is with the free user-friendly Configuration or Macro Development Software. Serial I/O is provided via an optional Plug-in output carrier board, which supports RS-232 or RS-485 output modules. If serial I/O is not required by the application, the serial carrier board can be removed for reuse. The Tiger 320 Operating System supports several serial protocols, including ASCII, Modbus RTU and Print Mode (which includes a printer driver and support for direct meter to meter communications). Also supported is DeviceNet, which requires a special dedicated carrier board, and Ethernet (TCP/IP), which requires an external converter box.

## DECISION **RS-232 or RS-485**

Except for DeviceNet, all serial communication modes supported by the Tiger can function with either RS-232 or RS-485. The limitations of RS-232 are that only one meter at a time can be connected to the serial port of a computer, and the distance from the computer to the meter is limited in practical terms to around 30 meters (100 feet).

**PLANNING TIP** Up to 32 meters can be connected on an RS-485 bus. The differential current drive of the RS-485 bus ensures signal integrity in the most harsh environments to distances up to 1230 meters (4000 feet). However, RS-485 generally requires a special RS-485 output card to be installed in the computer or an external RS-232 to RS-485 converter has to be used.

## DECISION **Select the Communication Mode Best Suited to Your Application:**

### Modbus (RTU)

Modbus is widely used in industry. It has a large base, and most SCADA and HMI software packages support it. See also Modbus Wrapped in Ethernet (Modbus/TCP) below.

**PLANNING TIP** There are 100s of HMI Touch Panel Screens that are compatible with the Tiger 320 Modbus interface.

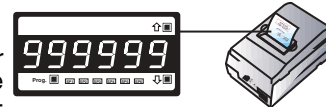


### ASCII

The meter configuration utility program and the development software use the ASCII protocol. The ASCII protocol allows you to write your own driver for your own application via the development software and should provide the quickest development time.

### Print Mode

This is an ASCII based printer driver output that enables the serial port to be directly connected to any serial printer with Epson compatibility. Printer output can be configured to occur from a setpoint or on demand, and can be date or time stamped.



**PLANNING TIP** The print mode can also be used for computer data logging applications. The meter can be connected directly to a computer, set up in Microsoft Hyperterminal mode, with the meter programmed to output directly into a Microsoft Excel spreadsheet format. (Also see Data Logging).

### Print Mode for Meter to Meter Communication

Two or more Tiger PMCs can be connected together allowing data to be transferred from the master meter (in print mode) to the slave meter (in ASCII mode). This enables the meters to share input data and control output functions.

### Master Mode

This mode is for use with macro programming to expand the meter to meter communication capability to multiples of Tiger PMCs. This is useful for building an entire system of Tiger PMCs, sharing information and control output resources.

## DECISION **Ethernet**

Ethernet has become a popular automation and control protocol. We supply an ethernet output option and several external ethernet converters that are compatible with the serial outputs of Tiger PMCs.



**PLANNING TIP** **Ethernet ASCII Wrap** - The ethernet output carrier board option wraps the ASCII output into the Ethernet protocol, and provides a T-base 10/100 Ethernet output socket. This allows the Configuration Utility Program or the Macro Development Software to run over a standard Ethernet network. This enables the Tiger meter to be configured or macro programmed from anywhere in the world via the web.

**PLANNING TIP** Up to 32 Tiger PMCs can be connected by RS-485 to a single Ethernet Converter, which will support up to 32 separate IP addresses.

**PLANNING TIP** **Ethernet Modbus Wrap** - This converter accepts the Tiger PMC's modbus protocol and outputs Modbus/TCP through an Ethernet T-base 10 port. This has become a standard for Ethernet on the factory floor. Many SCADA and HMI software packages connect directly to Modbus/TCP.

# Harnessing the Power of the Tiger 320

## DeviceNet

DeviceNet was originally developed by Allen Bradley to connect sensors from the factory floor to PLCs. It is a deterministic real-time system, typically used to connect to networks using Allen Bradley PLCs. An optional carrier board is required for DeviceNet which replaces the standard serial output with a dedicated DeviceNet output connector.

## Data Logging

The Tiger 320 Operating System has built-in, sophisticated data logging software. Data logging can be triggered from the PROGRAM button, digital inputs, time or alarm functions. Up to 1MB of optional extra on-board memory provides a powerful, multichannel data capture and acquisition system.

**PLANNING TIP** Tiger PMCs can be configured to log in an endless loop, overwriting the oldest data first and utilizing the maximum amount of memory available. Similar to the Black Box on an aircraft, the data can be downloaded for analysis after a problem event occurs.

**PLANNING TIP** Data logging can be combined with an Ethernet converter to provide an individual Web Page with data that can be accessed by a browser over the internet.

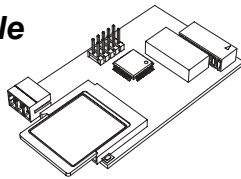
## Real-time Clock

The Tiger meter has an optional real-time clock with a 15 year lithium battery backup, ensuring that time information is not lost in the event of a power failure. It can be configured in 12 or 24-hour modes for printing and data logging applications.

**PLANNING TIP** Other applications of the real-time clock include activating a setpoint or control action at fixed times of the hour, day, week, month or year.

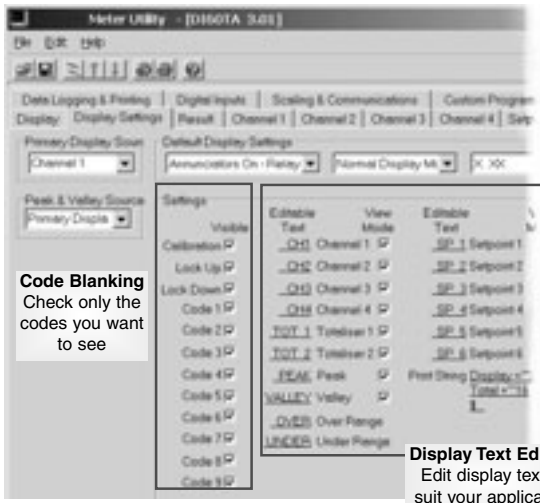
## Flash Card Memory Module

For long term data logging, a Flash Card Memory Module that plugs in to the carrier board output socket is available. Flash Cards are available from 4 to 128 meg. They can be removed and read by a standard card reader, or the data can be downloaded through the serial port or over the internet with an Ethernet converter. The module also has an SSR setpoint output to trigger an external event.



## Configuration and Programming with a PC

With a serial output module installed, Tiger 320 PMCs are most easily configured using the Tiger 320 Configuration Utility, which can be downloaded free from the web and run on any Windows-based PC. The utility also enables the user to access some special capabilities of the Tiger 320 which cannot be programmed manually by the front panel buttons.



**Code Blanking**  
Check only the codes you want to see

**Display Text Editing**  
Edit display text to suit your application

**PLANNING TIP** The Configuration Utility requires that an RS-232 interface board be installed in a Tiger 320 for programming. However, if the final application does not require a serial output, the RS-232 board can be easily removed, after programming is completed, and kept for future use.

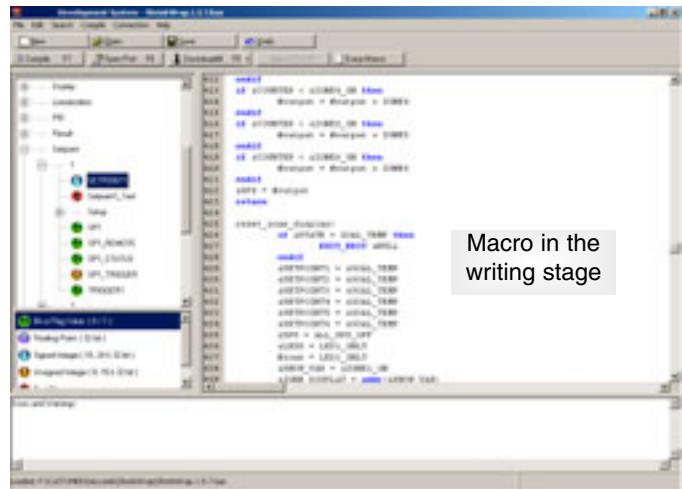
**PLANNING TIP** When a Tiger 320 is to be used in a custom application, the utility enables all or any of the front panel programming functions to be disabled (code blanking). Customized descriptive text can also be entered to appear with any setpoint action or event.

**PLANNING TIP** Different configurations can be stored in a PC for fast downloading into a meter by the user. Custom configurations can also be issued a serial number and pre-loaded at the factory.

## Development Software

### Custom Macro Programming

This powerful, easy to use development system enables programs to be written in BASIC, utilizing any combination of the hundreds of functions and thousands of registers embedded in the Tiger 320 Operating System. When your Basic program is compiled into the Tiger 320 Macro-language it is error checked and optimized. There are also numerous off-the-shelf application specific programs available. Many only need the blanks to be filled in to use them and do not require any knowledge of BASIC programming.



Macro in the writing stage

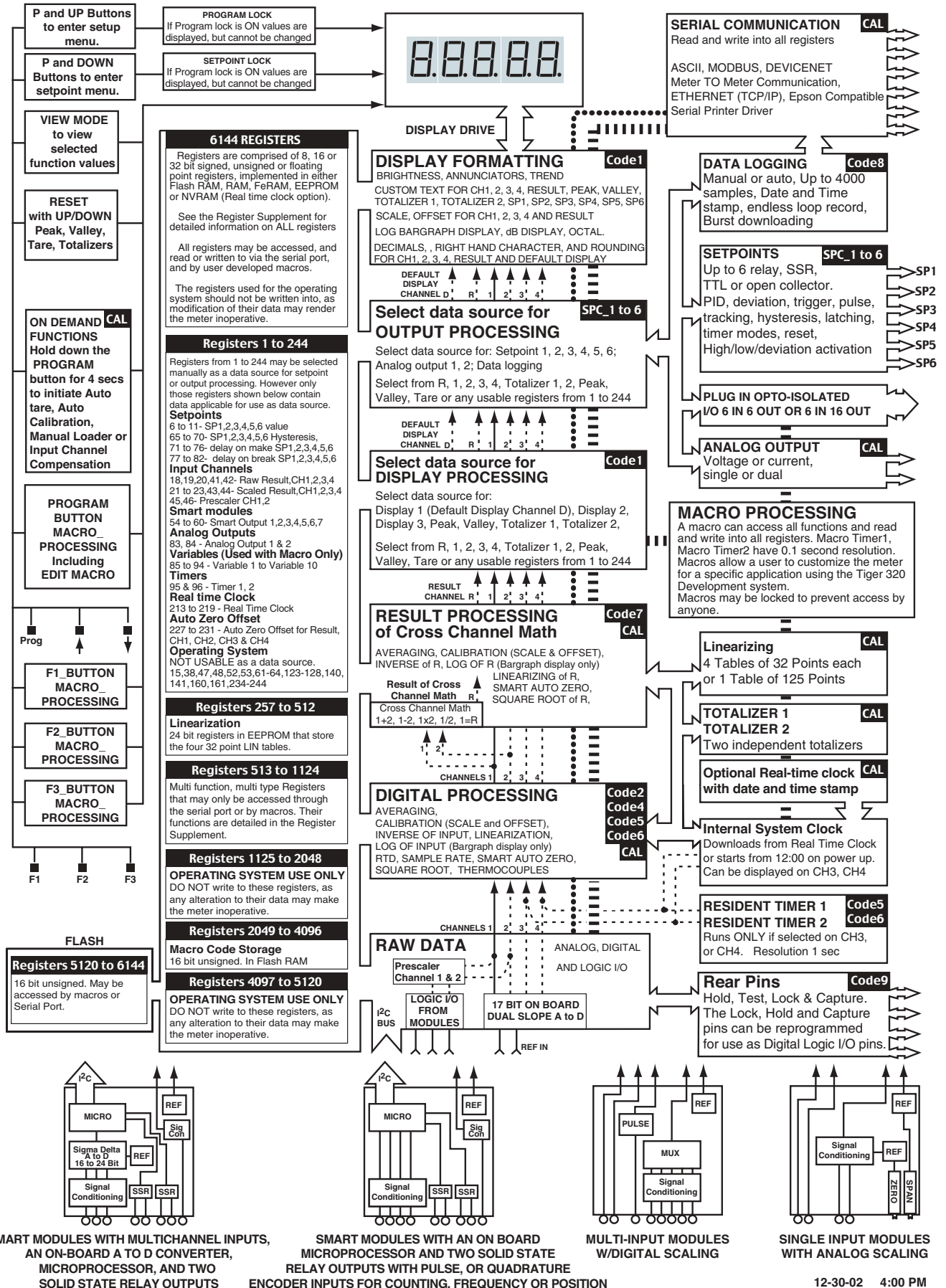
**PLANNING TIP** Macros are useful when implementing any specialized control system that cannot be achieved by the standard configuration capability of the Tiger 320 Operating System. Using the development software, functions can be altered or added in a standard meter to perform the required job. This may typically include logic sequencing functions and mathematical functions.

**PLANNING TIP** Developing a Macro is much easier and quicker than programming a PLC, because the basic code required to customize the Tiger meter is considerably less than the ladder logic programming required for PLCs. This is due to the hundreds of functions built into the Tiger meter that can be manipulated or invoked by a macro, to fulfill the requirements of almost any application.

**PLANNING TIP** Scrolling annunciator messages can be programmed to appear with any setpoint activation, selected events or logic inputs. Easy to read, plain text prompts can be programmed to replace the manual programming codes and provide a user-friendly interface for any custom application.



# Diagram of the Tiger 320 Software & Hardware Structure



# Configuration Utility Software

The Easiest and Fastest Way to Configure the Tiger 320 is to Use a PC with the Free Downloadable Configuration Utility Program.

The diagrams and instructions provided in this data sheet / user manual are intended to enable the Tiger meter to be configured and programmed manually using the front panel buttons. A system of Programming Codes is required to facilitate this type of manual programming and these are explained in detail with diagrams and examples.

However, when the Tiger meter is configured and programmed via the optional RS-232 serial port and a PC using the Configuration Utility, the system of Programming Codes is bypassed. The Configuration Utility enables all the programming options to be clearly identified by their functions for direct on-screen selection. The Configuration Utility requires that an RS-232 interface board be installed in a Tiger 320 for programming. However, if the final application does not require a serial output, the RS-232 board can be easily removed, after programming is completed, and kept for future use.

The Configuration Utility Program (which may be freely downloaded from the web) is designed to simplify and speed up the configuration and programming of any Tiger 320. Pull down menus facilitate the selection of different options and the assignment of values. A "Help" explanation is provided just by holding the cursor over any function box.

The configuration utility enables the user to access some special capabilities of the Tiger 320 which cannot be selected manually by the front panel buttons.

**Source For Display**  
 OFF  
 Primary Display  
 Result  
 Channel 1  
 Channel 2  
 Channel 3  
 Channel 4  
 Totalsator 1  
 Totalsator 2  
 Peak  
 Valley  
 Tare  
 Setpoint 1  
 Setpoint 2  
 Setpoint 3  
 Setpoint 4  
 Setpoint 5  
 PID 1  
 PID 2  
 Register

**Annunciators**  
 Annunciators On - Relay ON  
 Annunciators On - Relay OFF  
 Annunciators OFF  
 Annunciators show tendency

**Display Mode**  
 Normal Display Mode  
 Manual Display Mode  
 Fast Display Mode

**Decimals and Display Format**  
 No decimal point  
 X.X  
 X.XX  
 X.XXX  
 X.XXXX  
 X.XXXXX  
 External decimal point  
 12 Hour Clock  
 24 Hour Clock  
 Hrs : Mins : Secs  
 Days : Hrs : Mins  
 Octal

**Last Digit Rounding**  
 None  
 2 x  
 5 x  
 10 x

**Right Hand Side Character**

**Source For Peak and Valley**  
 OFF  
 Primary Display  
 Result  
 Channel 1  
 Channel 2  
 Channel 3  
 Channel 4  
 Totalsator 1  
 Totalsator 2  
 Peak  
 Valley  
 Tare  
 Setpoint 1  
 Setpoint 2  
 Setpoint 3  
 Setpoint 4  
 Setpoint 5  
 PID 1  
 PID 2  
 Register

**Code Blanking**  
 Check only the codes you want to see

**Display Text Editing**  
 Edit display text to suit your application

## Code Blanking

When a custom configuration is created for any specialized application, the Tiger 320 can be programmed to blank out and disable all or any manual programming codes that you do not wish the user to be able to view or access by de-selecting them in the appropriate check box.

## Display Text Editing

The meter can be programmed to display customized text to appear for any setpoint or event to suit any application requirements.

Linearization Tables

Table	Input	Output	Table	Input	Output	Table	Input	Output	Table	Input	Output
1	1	1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9	9	9
10	10	10	10	10	10	10	10	10	10	10	10
11	11	11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16	16	16

## Easy Installation of Linearization Tables

The configuration utility facilitates the storage and downloading of complex linearization tables. Tables can be created in any mathematical or spreadsheet program, and copied into the utility. Linearization tables can be created to precisely match a particular sensor so that they can be installed and downloaded as part of an annual calibration procedure.

**Source For Setpoints 1-6**  
 OFF  
 Primary Display  
 Result  
 Channel 1  
 Channel 2  
 Channel 3  
 Channel 4  
 Totalsator 1  
 Totalsator 2  
 Peak  
 Valley  
 Tare  
 Setpoint 1  
 Setpoint 2  
 Setpoint 3  
 Setpoint 4  
 Setpoint 5  
 Setpoint 6  
 PID 1  
 PID 2  
 Lock Pin  
 Hold Pin  
 Capture Pin  
 Digital Input 1  
 Digital Input 2  
 Digital Input 3  
 Register

**Destination**  
 OFF  
 Display  
 Result  
 Channel 1  
 Channel 2  
 Channel 3  
 Channel 4  
 Totalsator 1  
 Totalsator 2  
 Peak  
 Valley  
 Tare  
 Setpoint 1  
 Setpoint 2  
 Setpoint 3  
 Setpoint 4  
 Setpoint 5  
 Setpoint 6  
 PID 1  
 PID 2  
 Register

**Latching For Setpoints 1-6**  
 None  
 Latch ON  
 Latch OFF

**Activation For Setpoints 1-6**  
 Pulse  
 Below

**Mode For Setpoints 1-6**  
 OFF  
 Hysteresis  
 Deviation  
 PID

**Timer For Setpoints 1-6**  
 Normal  
 One Shot  
 Pulse  
 Repeat

**Reset Mode**  
 Reset Value  
 Const  
 Input-SP+Const.  
 Display  
 Result  
 Channel 1  
 Channel 2  
 Channel 3  
 Channel 4  
 Totalsator 1  
 Totalsator 2  
 Peak  
 Valley  
 Tare  
 Setpoint 1  
 Setpoint 2  
 Setpoint 3  
 Setpoint 4  
 Setpoint 5  
 Setpoint 6  
 PID 1  
 PID 2  
 Register

## Easy Setpoint Configuration

The Tiger 320 supports an incredible range of setpoint options and functions. The utility makes it quick and easy to select and download any combination you may require.

## Configuration Data Copying and Loading

The configuration utility program allows you to store a record of a meter's configuration for later referral, or for the restoration of a desired configuration. Macros can be combined with a configuration file so they can be downloaded together and locked at the same time. When a file is locked after downloading, it cannot be copied. It can only be erased and reloaded from a master file.

Also included is the ability for the user to make notes about the configuration that can be stored as part of the file.

# Custom Macro Programming

**Never Before has the Customization of such a Powerful Measurement, Control and Automation Product been Made so Fast, Free and Easy.**

The Tiger 320 Macro Development System is so power packed and feature rich that you can build a completely custom designed controller in 1/50th of the time it would take to program a microprocessor or a PC, and 1/20th of the time it can take to program a PLC.

Quickly convert any special metering or control and automation idea into your own proprietary product, CE approved and ready to ship in days, with custom multicolor faceplates, labels, shipping boxes and instruction manuals

This powerful, easy to use Development System enables programs to be written in BASIC which can utilize any combination of the hundreds of functions and thousands of registers embedded in the Tiger 320 Operating System.

When your BASIC program is compiled into the Tiger 320 Macro-language it is error checked and optimized. When your Macro is downloaded into a Tiger 320 and locked, it is locked forever. It cannot be read or duplicated, it can only be erased. There is no back-door access. A Tiger 320 running your Macro will remain your exclusive proprietary product.

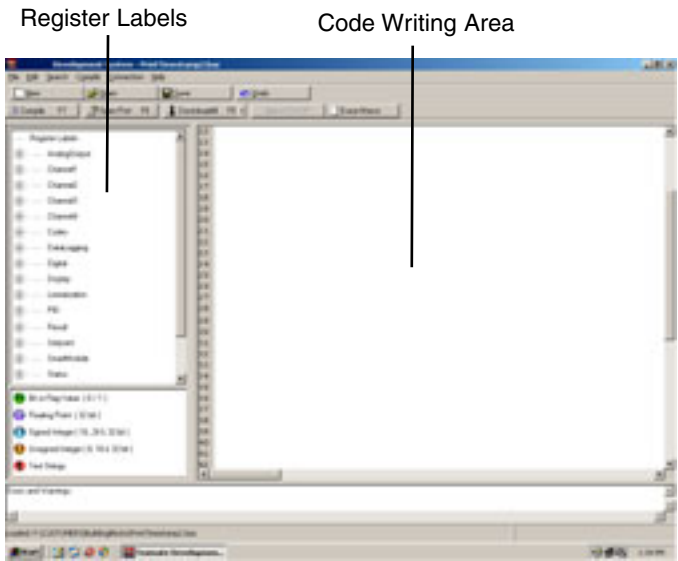
There is also a growing library of off-the-shelf application specific macro programs available. Many only need the blanks to be filled in to use them and this does not require any knowledge of BASIC. The source code is provided with these programs so they can easily be customized and/or integrated into any proprietary application-specific Macro.

On request, any custom Macro can be issued a serial number and pre-installed at the factory to operate on power-up.

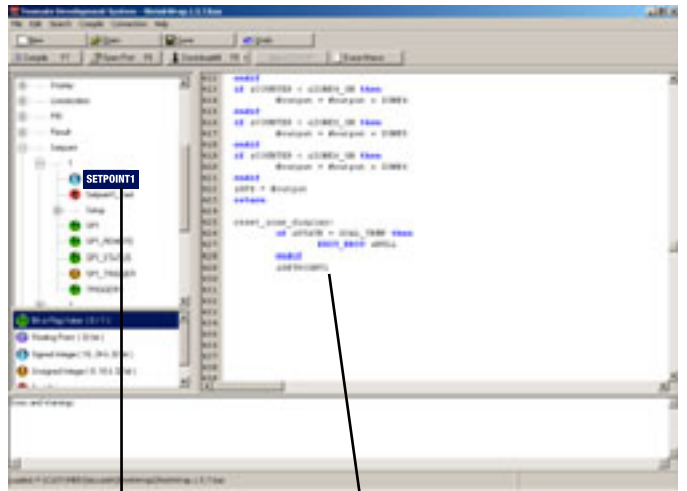


Scrolling annunciator messages can be programmed to appear with any setpoint activation, selected events or logic inputs. Easy to read, plain text prompts can be programmed to replace the manual programming codes and provide a user-friendly interface for any custom application.

**Tiger Development System - Code Writing Screen**



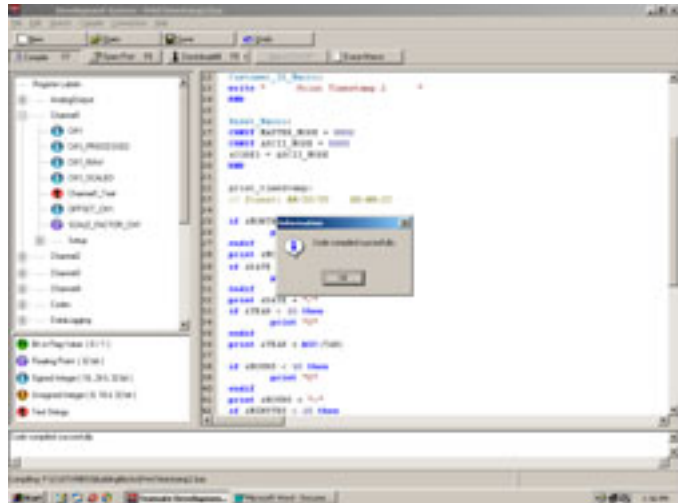
Tiger Development System screen showing Macro being written.



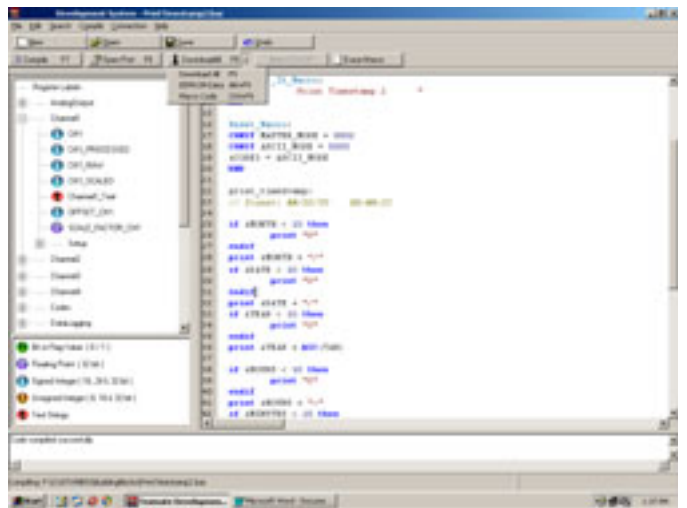
Double clicking on register label in the left hand side frame

automatically inserts the function in the code window at the cursor insertion point.

Tiger Development System screen showing the Macro code being compiled successfully.



Tiger Development System screen showing the compiled Macro being downloaded into a Tiger 320 Series PMC.





# Tiger 320 Programmable Bargraph Controllers

INTERNATIONAL
DIN
CASES
1/32
1/32
1/8

The Tiger 320 Series of 32-bit Programmable Meter Controllers easily integrates, in one instrument, all the different functions required by today's automation and process control applications.

A virtual toolbox of selectable and programmable application software functions are embedded in the Tiger 320 Operating System. They integrate seamlessly with a truly vast array of modular input and output hardware options.



▲ FI-B101D50E ▲ FI-B101D50T  
9/64 DIN 36x144 mm (1.42"x5.69")



DI-50EB51 ▶

▲ DI-50TB51  
1/8 DIN  
48x96 mm  
(1.89"x3.78")



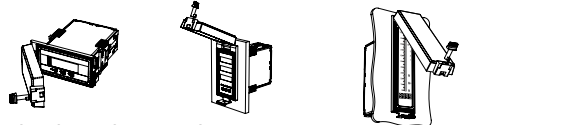
▲ GI-50EB101 ▲ GI-50TB101

9/32 DIN  
144x72 mm  
(5.69"x2.84")

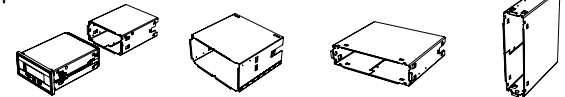
## TEXMATE TIGER 320 SERIES OF PMCs AND PBCs FEATURE

- Powerful intelligent modular digital meters and bargraphs configurable to any input or output
- T versions include all the features of the economical E versions, plus the ability to store and execute user defined macro programs, a feature that provides the ultimate in customized operation
- Over 100 signal conditioners, with single, dual, triple and quad inputs, including many with mixed function inputs to suit almost any conceivable application. (See I-Series Input Module Brochure)
- Built-in sensor excitation voltage, 5 V / 10 V / 24 V DC
- Front-panel digital calibration and function selection
- Built-in linearization function, 32 to 125 flexible points
- Built-in memory for maximum and minimum readings
- Digital "smart" filtering
- Built-in timer and totalizer can derive totals from rate inputs
- Optional real time clock with 15 year battery back up
- High resolution, fully programmable 16-bit analog output
- Six 5 A relays or combinations of 10 A relays and 5 A relays
- Data logging up to 7000 samples
- Choice of serial communications: RS-232, RS-485, ASCII, Modbus,

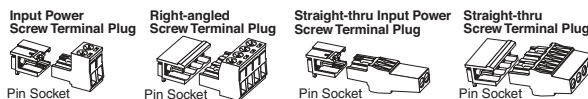
- DeviceNet™ and direct printer driver output
- Auto-sensing AC/DC, wide range power supplies, 85-265 V AC / 95-370 V DC or 18-36 V AC / 9-60 V DC
- Custom face plates for any applications
- Optional NEMA 4X membrane touch screen face plates
- Optional NEMA 4X, IP65 clear polycarbonate lens covers



- Optional metal surround cases



- Standard plug-in screw terminal connectors are provided





# Tiger 320 Programmable Meter Controllers

INTERNATIONAL
DIN
CASES
1/3: 1/8

- Quick, easy mounting into any panel thickness
- Direct flush mount into mosaic panels

▲ DI-50EAN6 or  
▲ DI-50TAN6

▲ DI-503E or  
▲ DI-503T

▼ DI-802XAE or DI-802XAT  
Back Lit Dual Line Alphanumeric LCD

▲ DI-60AE or ▲ DI-60AT

▼ DI-602AT5C

▲ DI-60AT5C Large Button Option

▲ DI-60E or ▲ DI-60T

All DI Series Meters are 1/8 DIN 96x48 mm (3.78"x1.89")

9/32 DIN 144x72 mm (5.69"x2.84")

▲ DI-60XE or ▲ DI-60XT

▲ GI-50E or ▲ GI-50T

Membrane Touch-pad or Buttons Display Option

DI-60AM ▶

User Friendly, Menu Driven, 6 Digit Meter with LED Display and 6 Setpoints

◀ DI-60XM

User Friendly, Menu Driven, 6 Digit Meter with LCD Display and 6 Setpoints

## INPUT SIGNAL CONDITIONING MODULES

Texmate features more than 120 different Plug-In I-Series Input Signal Conditioners approved for the Tiger Family of products.

<p><b>ITP1:</b> Triple 4 to 20mA</p>	<p><b>IDP3:</b> Dual Input: Thermocouple (J/K/R/S/T/B/N) and 4 to 20mA</p>	<p><b>IDR1:</b> Dual Resistance Input, 0.2/2/20KΩ</p>	<p><b>IDS2:</b> Dual Pressure Input, 4 wire 2mV/V, 20mV/V</p>	<p><b>IP07:</b> Universal Process Input 2V/5V/10V/20V/200V/2mA/20mA/Custom Pressure Output Calibration</p>	<p><b>ITT8:</b> Triple Input: T/C (J/K/R/S/T/B/N), 4 to 20mA and 4 to 20mA</p>
<p><b>IRO2:</b> 3 wire Potentiometer 1KΩ min (0-F.S.)</p>	<p><b>ISO3:</b> Pressure/Load Cell with AutoCal 5/10VDC Exc., 20/2mV/V, 4-wire</p>	<p><b>ITT1:</b> Triple Thermocouple (J/K/R/S/T/B/N)</p>	<p><b>ITTC:</b> Triple RTD Platinum 100Ω RTD 4-Wire Connection</p>	<p><b>YOUR CUSTOM-DESIGNED MODULE</b></p>	
					<p><b>IW03:</b> DC-Watts, 10V/50mV DC</p>


All Resistor RTDs must be connected for the correct module.




INTERNATIONAL
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# Tiger 320 Large LED Remote Displays


The Tiger 320 Series of 32-bit Programmable Meter Controllers easily integrates with a wide range of Remote Displays that feature colorful, scrollable messages for alarm and status indication.




**2" (50.8mm) 24 Digits Large LED Remote Display**  
1016x108mm (40"x4.25")  
Part Number: OP-W2/RD24AT




**1" (25.4mm) 24 Digits Large LED Remote Display**  
625x82.6mm (24.6"x3.25")  
Part Number: OP-W1/RD24AT  
driven by RS232 from any Tiger 320




**2" (50.8mm) 16 Digits Large LED Remote Display**  
711x108mm (28"x4.25")  
Part Number: OP-W2/RD16AT



**1" (25.4mm) 16 Digits Large LED Remote Display**  
450x82.6mm (17.7"x3.25")  
Part Number: OP-W1/RD16AT



**2" (50.8mm) 12 Digits Large LED Remote Display**  
559x108mm (22"x4.25")  
Part Number: OP-W2/RD12AT



**1" (25.4mm) 12 Digits Large LED Remote Display**  
363x82.6mm (14.3"x3.25")  
Part Number: OP-W1/RD12AT





**4" (101.6mm) 12 Digits Large LED Remote Display**  
1133x221mm (44.6"x8.7")  
Part Number: OP-W4/RD16AT  
driven by RS232 from any Tiger 320



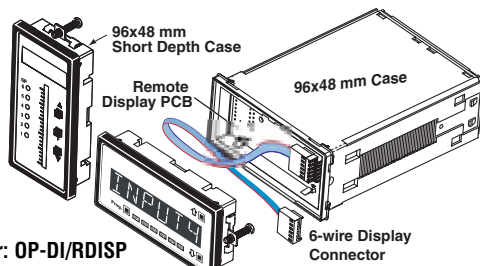

**4" (101.6mm) 5 Digits Large LED Remote Display**  
540x144mm (21.3"x5.7")  
Part Number: OP-W4/RD5R  
driven by RS485 from any Tiger 320



**4" (101.6mm) 6 Digits Large LED Remote Display**  
648x144mm (25.6"x5.7")  
Part Number: OP-W4/RD6R  
driven by RS485 from any Tiger 320

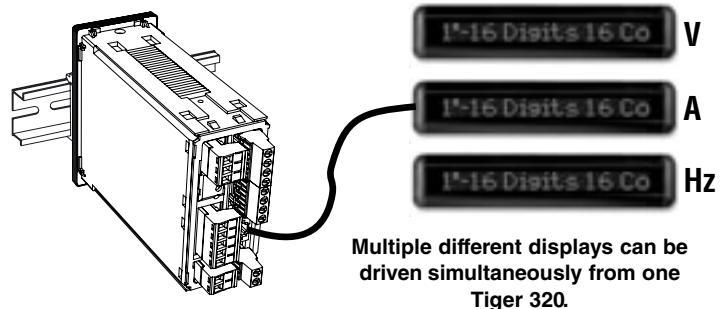
## TEXMATE TIGER 320 PMCs SUPPORT MANY DIFFERENT REMOTE DISPLAYS

Optional Short Depth Separated Display Available for Most 1/8 DIN Tiger Meters



Part Number: OP-DI/RDISP  
see page 25 for ordering information

DIN Rail Mounting





INTERNATIONAL	
<b>DIN</b>	
CASES	
1/32	1/8
1/32	

# LCD Touch Screen HMIs

**Multifunction HMI Touch Screen Control Panels interface with Tiger 320 PMCs for Stand-alone Applications or in combination with more than 100 popular PLCs**

10.4" Color or Mono color



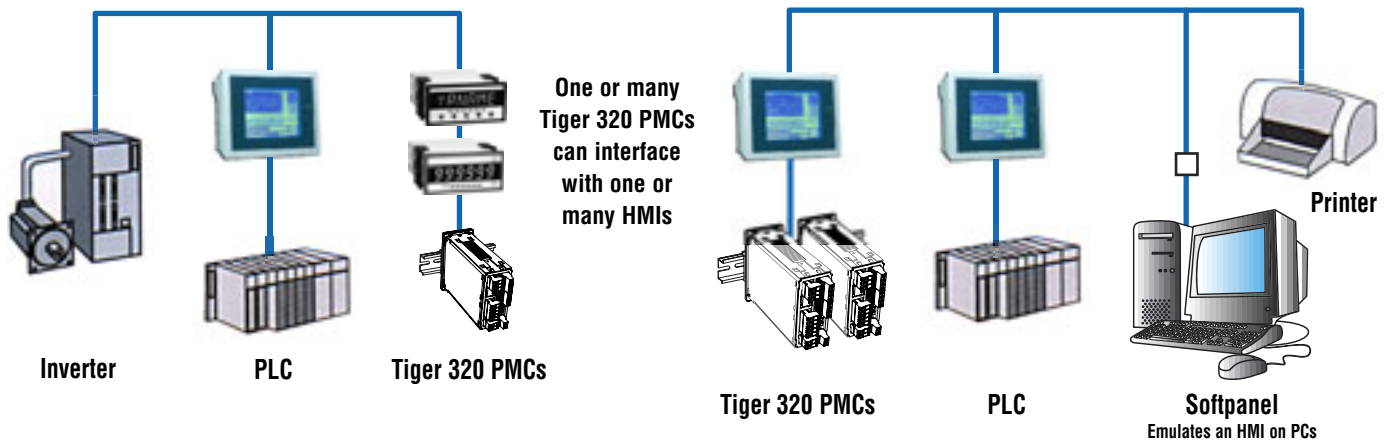
**NEW!**

5.7" Color or Mono color



**NEW!**

**A cost effective Tiger 320 and an HMI Display can outperform most dedicated Paperless Recorders.**

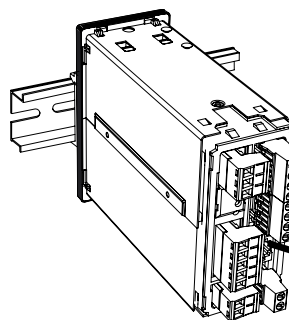


**Use powerful, easy-to-program Tiger 320 PMCs, with our Hitech HMIs, to add 100s of functions, such as Temperature, Flow, pH, Rate, Position or Weight Checking, to your existing PLC-based Machine**

## OEM LCD MONO COLOR TOUCH SCREEN INTEGRATED WITH A TIGER 320 PMC

Tiger 320 PMC

Blue/White on Black or Black on Blue/White Display



**Din Rail Mounting**

Live Action Moving Elements Are Supported



**NEW!**



Multi-page selection with dozens of active elements per page. Graphic elements are easily created in a popular HTML program, compiled in our development system and downloaded into the HMI.

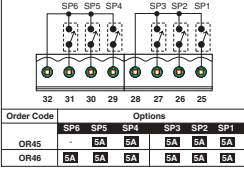


# Tiger 320 Series Modular Construction

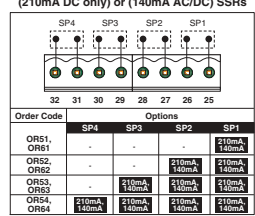
INTERNATIONAL
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## Relay & Logic I/O Modules for DI & GI

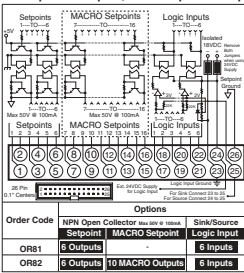
Relay Modules with five or six 5A Form A Relays



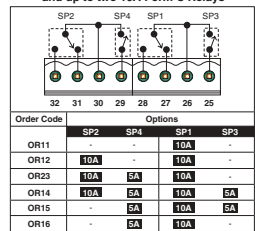
Relay Modules with up to 4 Independent 400V (210mA DC only) or (140mA AC/DC) SSRs



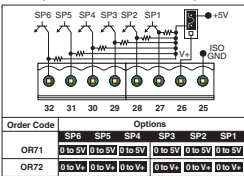
Opto Isolated I/O Module for External Breakout Box with 6 Outputs & 6 Inputs, or 16 Outputs & 6 Inputs



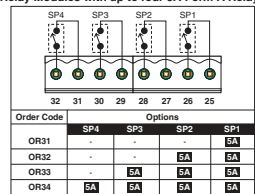
Relay Modules with up to two 5A Form A Relays, and up to two 10A Form C Relays



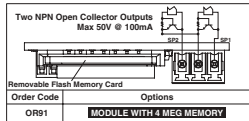
Open Collector / TTL / 5V Output



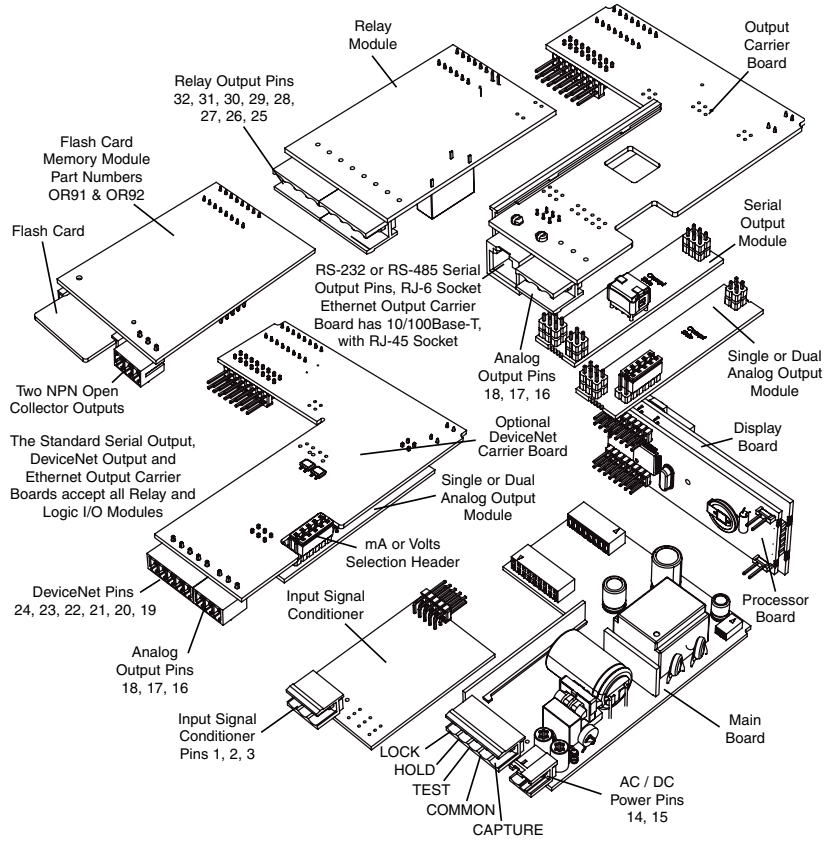
Relay Modules with up to four 5A Form A Relays



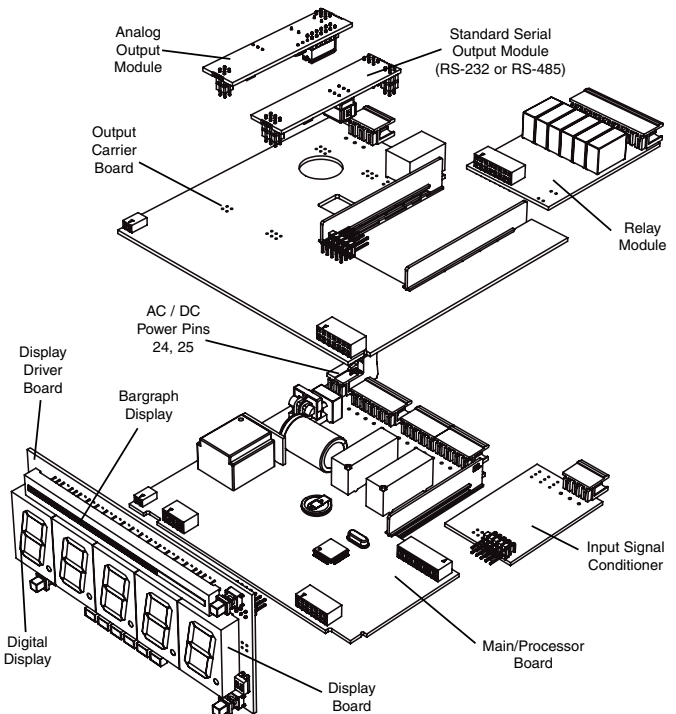
Flash Card Memory Module



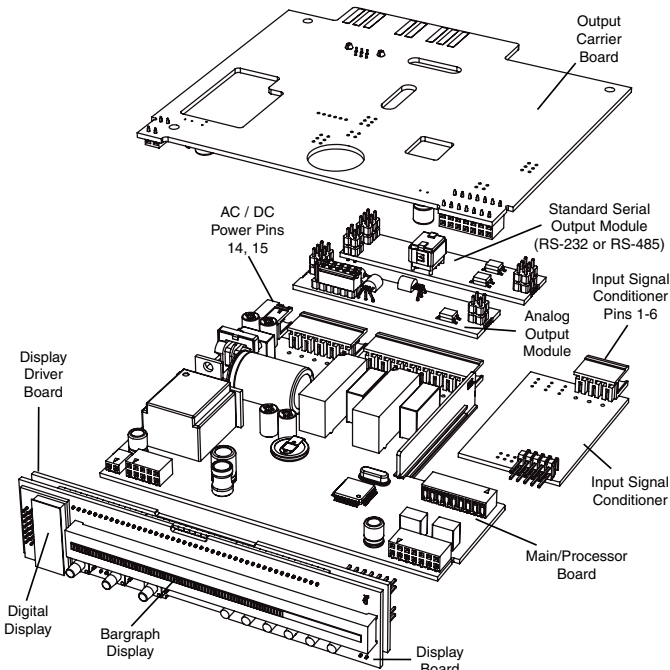
## DI - Case Format



## GI - Case Format



## FI - Case Format



# I-Series Input Signal Conditioning Modules

Over 120 plug-in signal conditioning modules are available to suit almost any input signal, control, or data output. Modules can be easily inserted through the rear of the meter without disassembly of the case or removal from the panel. Many modules are exclusively designed for the Tiger 320 Series, and some can also be used with the Leopard and Lynx Family panel meters and bargraphs. For a more comprehensive list, please see the *I-Series Input Module Guide (Z87)* or our website at [www.texmate.com](http://www.texmate.com).










Function	Module Page	Function	Module Page	Function	Module Page
<b>AC</b>		• Process Loop, 4 to 20mA	IP01 .. 18	• Smart Dual RTD (60Hz)	IST6** .. 20
• AC Amps Scaled RMS	IA04 .. 16	• Process Loop, 4 to 20mA (0-100.00) w/ Ext. Lin Table	IP09 .. 18	• Smart 6 Input - 3 RTD, 2 Process, 1 Digital Input	IST1* .. 20
• AC Amps Scaled RMS	IA05 .. 16	• Process Loop, 4 to 20mA w/24V DC Exc. and AutoCal	IP06 .. 18	• Smart 6 Input - 3 RTD, 2 Process, 1 Digital Input	IST2** .. 20
• AC Amps True RMS	IA09 .. 16	• Process Loop, 4 to 20mA with 24V DC Exc.	IP02 .. 18	• Triple RTD Platinum 100Ω RTD 4-wire connection	ITTC .. 20
• AC Amps True RMS	IA11 .. 16	• Quad 4 to 20mA	IQP1 .. 18	• Triple RTD Platinum 100Ω RTD 2-wire connection	ITTE .. 20
• AC Milliamps Scaled RMS	IA03 .. 16	• Smart Dual Input, Load Cell and Process (4-20mA)	ISS9 .. 19	• Triple - RTD / RTD / Frequency	ITTE .. 20
• AC Milliamps True RMS	IA08 .. 16	• Triple 4 to 20mA	ITP1 .. 20		
• AC Millivolts Scaled RMS	IA10 .. 16	• Triple - T/C, 4 to 20mA and 4 to 20mA	ITR8 .. 20	<b>SINGLE PHASE POWER</b>	
• AC Millivolts True RMS	IA12 .. 16	• Triple - T/C, 4 to 20mA and Counter	ITTF .. 20	• Single Phase Power, 300V/1A	IW01 .. 20
• AC Volts Scaled RMS	IA01 .. 16	• Triple - T/C, 4 to 20mA and DC mV	ITTA .. 20	• Single Phase Power, 300V/5A	IW02 .. 20
• AC Volts Scaled RMS	IA02 .. 16	• Triple - T/C, 4 to 20mA and DC Volts	ITTB .. 20	• Single Phase Power, 600V/1A	IW04 .. 20
• AC Volts True RMS	IA06 .. 16	• Triple - T/C, 4-20mA and Frequency	ITTF .. 20	• Single Phase Power, 600V/5A	IW05 .. 20
• AC Volts True RMS	IA07 .. 16	• Triple - T/C, T/C and 4 to 20mA	ITTA .. 20		
<b>COUNTER</b>		<b>FREQUENCY / RPM</b>		<b>SMART MODULES</b>	
• Dual - UP/DOWN Counter	IDC1 .. 17	• Dual - Strain Gauge and Frequency	IDS3 .. 17	• Dual Smart Pressure/Load Cell, 16 bit	ISS5** .. 19
• Quadrature Counter	IC02 .. 16	• Dual Frequency	IDF2 .. 17	• Dual Smart Pressure/Load Cell, 16 bit	ISS6** .. 19
• Quadrature Counter w/dual SSRs	IC03 .. 16	• Line Frequency (Leopard only)	IF08 .. 18	• Smart DC Volts, 16 bit, 1 to 800 Hz update rates	ISD1* .. 19
• Smart Triple Input, Pressure Direct & Dual Counter	ISP1 .. 19	• Line Frequency (Lynx only)	IF06 .. 18	• Smart DC Volts, 16 bit, 1 to 960 Hz update rates	ISD2** .. 19
• Triple - T/C, 4-20mA and Counter	ITTF .. 20	• Triple RTD / RTD / Frequency	ITTE .. 20	• Smart DC Volts, 16 bit, 1 to 800 Hz w/dual SSRs	ISD3** .. 19
• Universal Freq./RPM / Up Down Counter	IF10 .. 17	• Triple - T/C, 4-20mA and Frequency	ITTF .. 20	• Smart DC Volts, 16 bit, 1 to 960 Hz w/dual SSRs	ISD4** .. 19
		• Triple - T/C, Volts and Frequency	ITTG .. 20	• Smart DC Volts, High Res & Acc, 24 bit 1-400Hz	ISD5** .. 19
		• Universal Freq./RPM / Up Down Counter	IF10 .. 17	• Smart DC Volts, High Res & Acc, 24 bit 1-480Hz	ISD6** .. 19
		• Universal Frequency / RPM	IF05 .. 17	• Smart DC V, High Res & Acc, 1-480Hz w/dual SSRs	ISD7** .. 19
<b>DC</b>		<b>LVDT</b>		• Smart DC V, High Res & Acc, 1-480Hz w/dual SSRs	ISD8** .. 19
• DC Amps	ID04 .. 16	• Smart Dual LVDT (50 Hz)	ISL1* .. 19	• Smart Dual 3-wire Potentiometer (60 Hz)	ISR3** .. 19
• DC Amps	ID09 .. 16	• Smart Dual LVDT (60 Hz)	ISL2** .. 19	• Smart Dual 3-wire Potentiometer (50 Hz)	ISR4** .. 19
• DC Milliamps	ID03 .. 16			• Smart Single 3-wire Potentiometer (50 Hz)	ISR1** .. 19
• DC Milliamps with Offset and 24V Exc.	ID07 .. 16	<b>OXIDATION REDUCTION POTENTIAL</b>		• Smart Dual Input, Load Cell and Process (4-20mA)	ISS9 .. 19
• DC Millivolts	ID02 .. 16	• Oxidation Reduction Potential (ORP)	IOR1 .. 18	• Smart Dual Input, Load Cell and RTD	ISSB .. 19
• DC Volts	ID01 .. 16			• Smart Dual Input DC Volts, 16 bit, 1-20Hz update	ISDA** .. 19
• DC Volts with External Decimal Select	ID06 .. 16	<b>pH</b>		• Smart Dual Input DC Volts, 16 bit, 1-20Hz update	ISDB** .. 19
• DC Volts with External LIN Table Select	ID08 .. 16	• pH	IHO1 .. 18	• Smart Dual LVDT (50 Hz)	ISL1* .. 19
• DC Volts with Offset and 24V Exc.	ID05 .. 16	• pH with Automatic Temperature Compensation	IHO2 .. 18	• Smart Dual LVDT (60 Hz)	ISL2** .. 19
• DC-Watts, 10V/50mV DC	IW03 .. 20	<b>POTENTIOMETER</b>		• Smart Dual Photo Diode Input	ISSE .. 20
• Dual - 3-wire RTD and DC V	IDT3 .. 17	• 3-wire Potentiometer 1KΩ min (0-F.S.)	IR02 .. 19	• Smart Dual RTD (50Hz)	IST5** .. 20
• Dual DC Milliamps	IDD3 .. 17	• Linear Potentiometer 1KΩ min	IR03 .. 19	• Smart Dual RTD (60Hz)	IST6** .. 20
• Dual DC Millivolts	IDD2 .. 17	• Smart Dual 3-wire Potentiometer (50 Hz)	ISR3** .. 19	• Smart Magnetostriuctive Input	ISM1 .. 19
• Dual - DC mV and 4 to 20mA	IDD6 .. 17	• Smart Dual 3-wire Potentiometer (60 Hz)	ISR4** .. 19	• Smart Pressure/Load Cell, Standard Res 16 bit	ISS1* .. 19
• Dual - DC V and 4 to 20mA	IDD5 .. 17	• Smart Quad Potentiometer/Resistance	ISSA .. 19	• Smart Pressure/Load Cell, Standard Res 16 bit	ISS2** .. 19
• Dual - DC V and DC mV	IDD4 .. 17	• Smart Single 3-wire Potentiometer (50 Hz)	ISR1** .. 19	• Smart Pressure/Load Cell, High Res & Acc 24 bit	ISS3** .. 19
• Dual DC Volts	IDD1 .. 17	• Smart Single 3-wire Potentiometer (60 Hz)	ISR2** .. 19	• Smart Pressure/Load Cell, High Res & Acc 24 bit	ISS4** .. 19
• Dual - Thermocouple and DC mV	IDT5 .. 17	<b>PRESSURE</b>		• Smart Quad Potentiometer/Resistance	ISSA .. 19
• Dual - Thermocouple and DC V	IDT4 .. 17	• Direct Pressure with 2 Digital Inputs	IGYX .. 18	• Smart Quad Pressure/Load Cell (50 Hz)	ISS7** .. 19
• Process Input with Offset and 24V Exc (1-5VDC)	IP03 .. 18	• Dual Direct Pressure (Abs. or Differential/Gage)	IGYX .. 18	• Smart Quad Pressure/Load Cell (60 Hz)	ISS8** .. 19
• Process + 3 Digital Inputs	IP10 .. 18	• Dual Pressure Input	IDS2 .. 17	• Smart Quad Thermocouple (50 Hz)	IST3** .. 20
• Quad DC mV	IDQ2 .. 18	• Dual Smart Pressure/Load Cell, 16 bit	ISS5** .. 19	• Smart Quad Thermocouple (60 Hz)	IST4** .. 20
• Quad DC Volts	IDQ1 .. 18	• Dual Smart Pressure/Load Cell, 16 bit	ISS6** .. 19	• Smart 6 Input - 3 RTD, 2 Process, 1 Digital Input	IST1* .. 20
• Quad - Thermocouple / DC V / DC V / Frequency	IQT5 .. 18	• Pressure/Load Cell 20/2mV/V, 5/10V Exc 4-wire	IS05 .. 19	• Smart 6 Input - 3 RTD, 2 Process, 1 Digital Input	IST2** .. 20
• Smart DC Volts, 16 bit, 1 to 800 Hz update rates	ISD1* .. 19	• Pressure/Load Cell Ext Exc, 20/2mV/V, 4-wire	IS06 .. 19	• Smart Triple Input, Load Cell and Two Digital Inputs	ISSC** .. 19
• Smart DC Volts, 16 bit, 1 to 960 Hz update rates	ISD2** .. 19	• Pressure/Load Cell Ext Exc, High Impedance	IS07 .. 19	• Smart Triple Input, Load Cell and Two Digital Inputs	ISSD** .. 19
• Smart DC Volts, 16 bit, 1 to 960 Hz w/dual SSRs	ISD3** .. 19	• Pressure/Load Cell Ext Exc, 4/6-wire	IS04 .. 19	• Smart Triple Input, Pressure Direct & Dual Counter	ISP1 .. 19
• Smart DC Volts, High Res & Acc, 24 bit 1-400Hz	ISD6** .. 19	• Pressure/Load Cell with AutoCal, 4-wire	IS03 .. 19	• Smart Voltage and Resistance Input	ISD9 .. 19
• Smart DC V, High Res & Acc, 1-400Hz w/dual SSRs	ISD7** .. 19	• Pressure/Load Cell, 4/6-wire	IS02 .. 19		
• Smart DC V, High Res & Acc, 1-480Hz w/dual SSRs	ISD8** .. 19	• Smart Pressure/Load Cell, Standard Res 16 bit	ISS1** .. 19	<b>STRAIN GAGE</b>	
• Smart Dual 3-wire Potentiometer (50 Hz)	ISR3** .. 19	• Smart Pressure/Load Cell, Standard Res 16 bit	ISS2** .. 19	• Dual - Strain Gauge and Frequency	IDS3 .. 17
• Smart Dual 3-wire Potentiometer (60 Hz)	ISR4** .. 19	• Smart Pressure/Load Cell, High Res & Acc 24 bit	ISS3** .. 19	• Dual Strain Gauge Input	IDS1 .. 17
• Smart Dual Input DC Volts, 16 bit, 1-20Hz update	ISDA** .. 19	• Smart Pressure/Load Cell, High Res & Acc 24 bit	ISS4** .. 19	• Strain Gauge	IS01 .. 19
• Smart Dual Input DC Volts, 16 bit, 1-20Hz update	ISDB** .. 19	• Smart Quad Pressure/Load Cell (50 Hz)	ISS7** .. 19	<b>THERMOCOUPLE</b>	
• Smart Dual Input, Load Cell and RTD	ISSB .. 19	• Smart Quad Pressure/Load Cell (60 Hz)	ISS8** .. 19	• Dual Thermocouple	IDT1 .. 17
• Triple DC mV, 50mV DC	ITD2 .. 20	• Smart Triple Input, Pressure Direct & Dual Counter	ISP1 .. 19	• Dual - Thermocouple and 4 to 20mA	IDP3 .. 17
• Triple DC Volts, 2V DC	ITD1 .. 20	• Universal Direct Pressure	IGYZ .. 18	• Dual - Thermocouple and DC mV	IDT5 .. 17
• Triple - T/C, DC mV and DC mV	ITTE .. 20	<b>PROCESS LOOP</b>		• Dual - Thermocouple and DC V	IDT4 .. 17
• Triple - T/C, DC Volts and DC mV	ITTA .. 20	• Dual Process Loop	IDP1 .. 17	• Dual - Thermocouple and Load Cell	IDT6 .. 17
• Triple - T/C, DC Volts and DC Volts	ITTB .. 20	• Process Loop, 4 to 20mA	IP01 .. 18	• Quad - Thermocouple / DC V / DC V / Frequency	IQT5 .. 18
• Triple - T/C, T/C and DC mV	ITTF .. 20	• Process Loop, 4 to 20mA (0-100.00) w/ Ext. Lin Table	IP09 .. 18	• Smart Quad Thermocouple (50 Hz)	IST3** .. 20
• Triple - T/C, T/C and DC V	ITTT .. 20	• Process Loop, 4 to 20mA w/24V DC Exc. and AutoCal	IP06 .. 18	• Smart Quad Thermocouple (60 Hz)	IST4** .. 20
• Universal Process Input	IP07 .. 18	• Process Loop, 4 to 20mA with 24V DC Exc.	IP02 .. 18	• Thermocouple	IT01 .. 20
• Universal Process Input with AutoCal	IP08 .. 18			• Thermocouple, J/K/R/T, Selectable °C/F, 1"/0.1"	IT10 .. 20
<b>DUAL INPUTS</b>		<b>QUAD INPUTS</b>		• Triple - T/C, 4 to 20mA and 4 to 20mA	ITR8 .. 20
• Dual - 3-wire RTD and DC V	IDT3 .. 17	• Quad 4 to 20mA	IQP1 .. 18	• Triple - T/C, 4-20mA and Counter	ITTF .. 20
• Dual - 3-Wire RTD and 4 to 20mA	IDP2 .. 17	• Quad DC mV	IDQ2 .. 18	• Triple - T/C, 4 to 20mA and DC mV	ITTA .. 20
• Dual DC Milliamps	IDD3 .. 17	• Quad DC Volts	IDQ1 .. 18	• Triple - T/C, 4 to 20mA and DC Volts	ITTB .. 20
• Dual DC Millivolts	IDD2 .. 17	• Quad RTD Platinum 2 wire connection	IQT2 .. 18	• Triple - T/C, 4-20mA and Frequency	ITTF .. 20
• Dual - DC mV and 4 to 20mA	IDD6 .. 17	• Quad RTD Platinum 4 wire connection	IQT4 .. 18	• Triple - T/C, DC mV and DC mV	ITTE .. 20
• Dual - DC V and 4 to 20mA	IDD5 .. 17	• Quad - Thermocouple / DC V / DC V / Frequency	IQT5 .. 18	• Triple - T/C, DC Volts and DC Volts	ITTT .. 20
• Dual - DC V and DC mV	IDD4 .. 17	• Smart Quad Potentiometer/Resistance	ISSA .. 19	• Triple - T/C, T/C and 4 to 20mA	ITTA .. 20
• Dual - Strain Gauge and Frequency	IDS3 .. 17	• Smart Quad Pressure/Load Cell (50 Hz)	ISS7** .. 19	• Triple - T/C, T/C and DC mV	ITTE .. 20
• Dual DC Volts	IDD1 .. 17	• Smart Quad Pressure/Load Cell (60 Hz)	ISS8** .. 19	• Triple - T/C, T/C and DC V	ITTB .. 20
• Dual Direct Pressure (Absolute or Differential/Gage)	IGYX .. 18	• Smart Quad Thermocouple (50 Hz)	IST3** .. 20	• Triple - T/C, T/C and DC V	ITTT .. 20
• Dual Frequency	IDF2 .. 17	• Smart Quad Thermocouple (60 Hz)	IST4** .. 20	• Triple - T/C, Volts and Frequency	ITTG .. 20
• Dual Pressure Input	IDS2 .. 17			• Triple Thermocouple	ITTI .. 20
• Dual Process Loop	IDP1 .. 17	<b>RESISTANCE</b>		<b>TRIPLE INPUTS</b>	
• Dual Resistance Input	IDR1 .. 17	• Dual Resistance Input	IDR1 .. 17	• Smart Triple Input, Load Cell and Two Digital Inputs	ISSC** .. 19
• Dual RTD Input	IDT2 .. 17	• Resistance, 2/3/4-Wire	IR01 .. 18	• Smart Triple Input, Load Cell and Two Digital Inputs	ISSD** .. 19
• Dual Smart Pressure/Load Cell, 16 bit	ISS5** .. 19	• Resistance 2KΩ (Leopard only)	IR04 .. 19	• Smart Triple Input, Pressure Direct & Dual Counter	ISP1 .. 19
• Dual Smart Pressure/Load Cell, 16 bit	ISS6** .. 19	• Resistance 2KΩ (Lynx only)	IR05 .. 19	• Triple 4 to 20mA	ITP1 .. 20
• Dual Strain Gauge Input	IDS1 .. 17	• Smart Quad Potentiometer/Resistance	ISSA .. 19	• Triple - DC mV, 2V DC	ITD2 .. 20
• Dual Thermocouple	IDT1 .. 17	• Smart Voltage and Resistance Input	ISD9 .. 19	• Triple - DC Volts, 2V DC	IDT1 .. 20
• Dual - Thermocouple and 4 to 20mA	IDP3 .. 17	<b>RTD</b>		• Triple RTD Platinum 100Ω RTD 4-wire connection	ITTC .. 20
• Dual - Thermocouple and DC mV	IDT5 .. 17	• Dual - 3-wire RTD and DC V	IDT3 .. 17	• Triple RTD Platinum 100Ω RTD 2-wire connection	ITTE .. 20
• Dual - Thermocouple and DC V	IDT4 .. 17	• Dual - 3-Wire RTD and 4 to 20mA	IDP2 .. 17	• Triple - RTD / RTD / Frequency	ITTE .. 20
• Dual - Thermocouple and Load Cell	IDT6 .. 17	• Dual RTD Input	IDT2 .. 17	• Triple - T/C, 4 to 20mA and 4 to 20mA	ITR8 .. 20
• Dual UP/DOWN Counter	IDC1 .. 17	• Quad RTD Platinum 2 wire connection	IQT2 .. 18	• Triple - T/C, 4-20mA and Counter	ITTF .. 20
• Smart Dual 3-wire Potentiometer	ISR3 .. 19	• Quad RTD Platinum 4 wire connection	IQT4 .. 18	• Triple - T/C, 4 to 20mA and DC mV	ITTA .. 20
• Smart Dual Input, Load Cell and Process (4-20mA)	ISS9 .. 19	• RTD, 100Ω Copper 2/3/4-wire	IT13 .. 20	• Triple - T/C, 4 to 20mA and DC Volts	ITTB .. 20
• Smart Dual Input DC Volts, 16 bit, 1-20Hz update	ISDA** .. 19	• RTD, 100Ω Pt. 2/3/4-wire	IT02 .. 20	• Triple - T/C, 4-20mA and Frequency	ITTF .. 20
• Smart Dual Input DC Volts, 16 bit, 1-20Hz update	ISDB** .. 19	• RTD, 100Ω Pt. 2/3/4-wire (-199.9 to 199.9°C)	IT14 .. 20	• Triple - T/C, DC mV and DC mV	ITTE .. 20
• Smart Dual Photo Diode Input	ISSE .. 20	• RTD, 100Ω Pt. 2/3/4-wire (-199.9 to 199.9°F)	IT05 .. 20	• Triple - T/C, DC Volts and DC mV	ITTT .. 20
• Smart Dual RTD (50Hz)	IST5 .. 20	• RTD, 100Ω Pt. 2/3/4-wire (-200 to 800°C)	IT03 .. 20	• Triple - T/C, DC Volts and DC Volts	ITTT .. 20
• Smart Dual RTD (60Hz)	IST6** .. 20	• RTD, 100Ω Pt. 2/3/4-wire (-200 to 1470°F)	IT04 .. 20	• Triple - T/C, T/C and 4 to 20mA	ITTA .. 20
		• RTD, 100Ω Pt. Select 3/4-wire, °C/F, 1"/0.1"	IT11 .. 20	• Triple - T/C, T/C and DC mV	ITTE .. 20
		• RTD, 120Ω Nickel 2/3/4-wire	IT12 .. 20	• Triple - T/C, DC Volts and DC Volts	ITTT .. 20
		• RTD, 1000Ω Pt. Select 3/4-wire, °C/F, 1"/0.1"	IT15 .. 20	• Triple - T/C, T/C and 4 to 20mA	ITTA .. 20
		• Smart Dual Input, Load Cell and RTD	ISSB .. 19	• Triple - T/C, T/C and DC V	ITTB .. 20
		• Smart Dual RTD (50Hz)	IST5** .. 20	• Triple - T/C, Volts and Frequency	ITTG .. 20
				• Triple Thermocouple	ITTI .. 20




\*Optimized for 50 Hz rejection. \*\*Optimized for 60 Hz rejection.

Many additional input modules are available and others are constantly being developed. Check with your local distributor or see Texmate's web site at: [www.texmate.com](http://www.texmate.com) for updated information. Pre calibrated **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 are designed to be header selectable by the user, and our unique **SPAN ADJUST** Header facilitates **scaling to almost any required engineering unit**. See Input Module Component Glossary for more information.

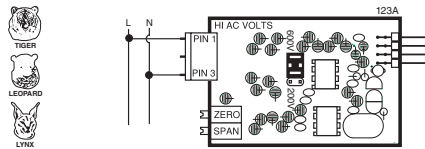
Unless otherwise specified, we will ship all modules pre calibrated with factory preselected ranges and/or scaling as shown in **BOLD** type. Other pre calibrated standard ranges or custom ranges may be ordered. Factory installed custom scaling and other custom options are also available.

**Symbols Indicate Module Compatibility Within Meter Families**

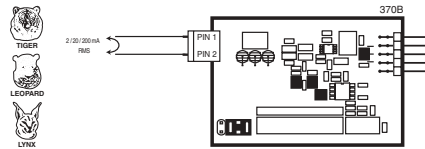
 TIGER Family	 LEOPARD Family	 LYNX Family
 TIGER Family	 LEOPARD Family	 LYNX Family
 TIGER Family	 LEOPARD Family	 LYNX Family
<b>ALL MODELS</b>	<b>SOME MODELS</b>	<b>MODEL SPECIFIC</b>

- \*  TIGER IT03  
\*A module code shown below a compatibility symbol indicates another module is available, similar in function, which may be more suited for use with that family.
- \*\*  LYNX FX-B101Q  
\*\*Modules which are compatible are listed below the Model Specific Symbol.
-  Indicates a SMART MODULE. Smart Modules incorporate their own microprocessor and A/D converter. They communicate digitally with the Tiger 320 Operating System. Some also have their own SSR outputs.

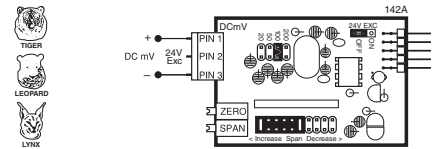
**IA01:** AC Volts Scaled RMS, 200/600V AC



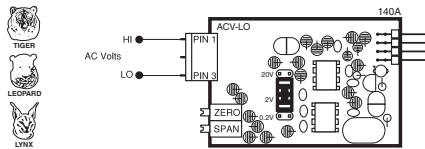
**IA08:** AC Milliamps True RMS, 2/20/200mA AC



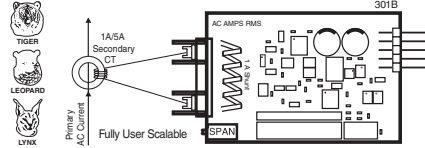
**ID02:** DC Millivolts, 20/50/100/200mV DC w/24V DC Exc



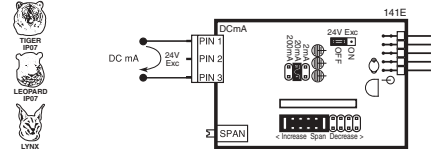
**IA02:** AC Volts Scaled RMS, 200mV/2V/20V AC



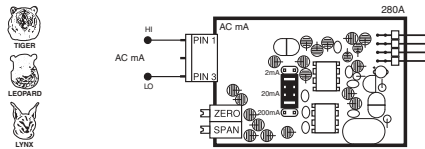
**IA09:** AC Amps True RMS, 1 Amp AC  
**IA11:** AC Amps True RMS, 5 Amp AC



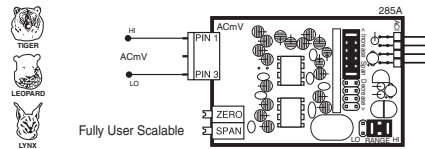
**ID03:** DC Milliamps, 2/20/200mA DC w/24V DC Exc



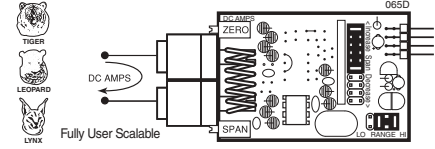
**IA03:** AC Milliamps Scaled RMS, 2/20/200mA AC



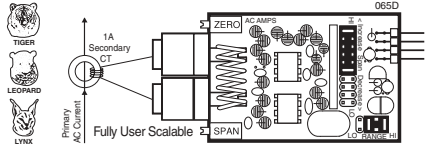
**IA10:** AC Millivolts, Scaled RMS, 100mV AC



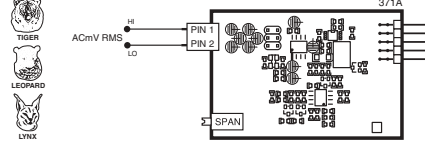
**ID04:** DC Amps, 5A DC  
**ID09:** DC Amps, 1A DC



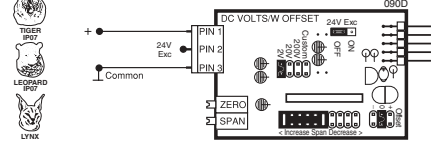
**IA04:** AC Amps Scaled RMS, 1 Amp AC  
**IA05:** AC Amps Scaled RMS, 5 Amp AC



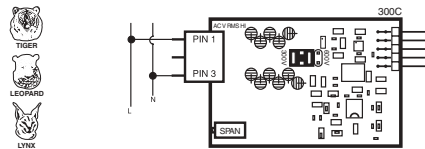
**IA12:** AC Millivolt RMS Sigma Delta



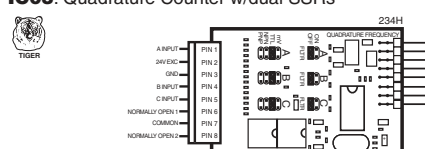
**ID05:** DC Volts 2/20/200/Custom V DC with Offset and 24V Exc.



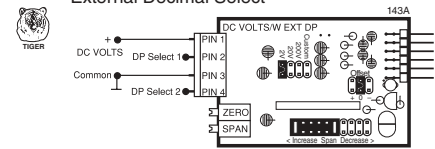
**IA06:** AC Volts True RMS, 300/600V AC



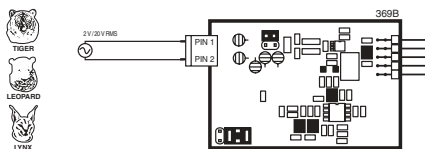
**IC02:** Quadrature Counter  
**IC03:** Quadrature Counter w/dual SSRs



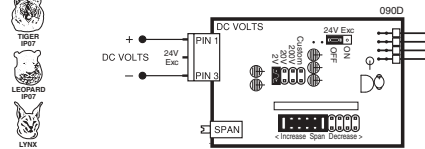
**ID06:** DC Volts 2/20/200/Custom V DC with External Decimal Select



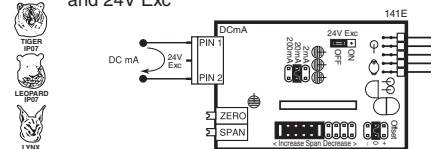
**IA07:** AC Volts True RMS, 200mV/2V/20V AC



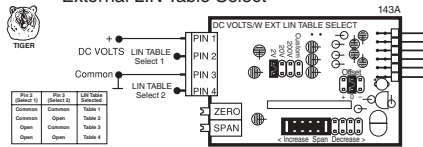
**ID01:** DC Volts, 2/20/200V/Custom w/24V DC Exc



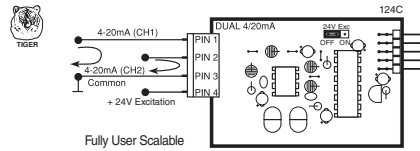
**ID07:** DC Milliamps, 2/20/200mA DC with Offset and 24V Exc



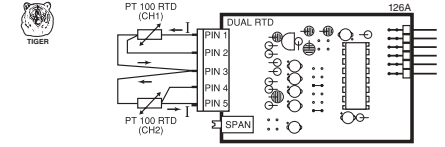
**ID08:** DC Volts, 2/20/200/Custom V DC with External LIN Table Select



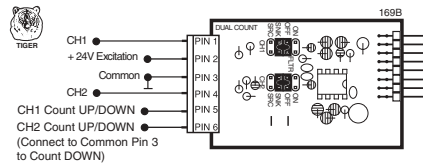
**IDP1:** Dual Process Loop, 4-20mA



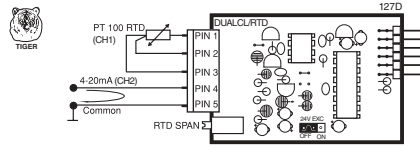
**IDT2:** Dual RTD Input, 2/3-wire, 100Ω Pt



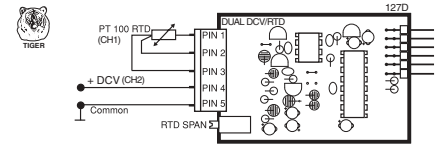
**IDC1:** Dual UP/DOWN Counter



**IDP2:** Dual Input, 3-wire RTD and 4-20mA

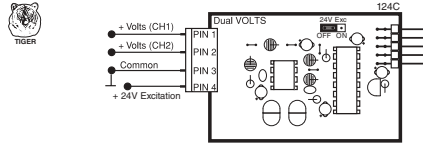


**IDT3:** Dual Input, 3-wire RTD and DCV

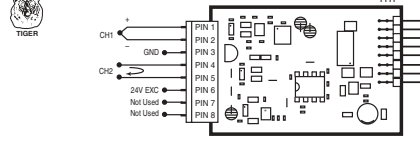


**IDD1:** Dual DC Volts, 2V DC

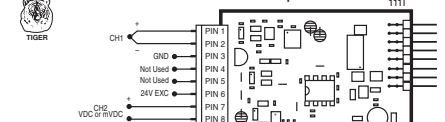
**IDD2:** Dual DC Millivolts, 50mV DC



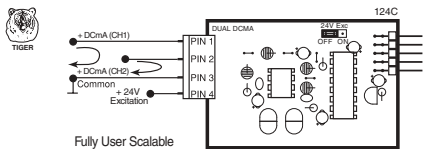
**IDP3:** Dual Input - Thermocouple (J/K/R/S/T/B/N) and 4 to 20mA



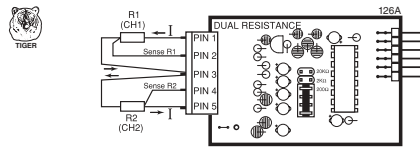
**IDT4:** Dual Input - Thermocouple (J/K/R/S/T/B/N) and 2VDC Input  
**IDT5:** Dual Input - Thermocouple (J/K/R/S/T/B/N) and 50mV Input



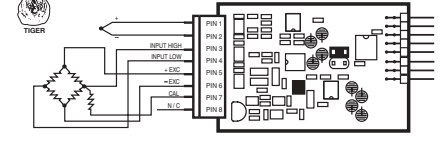
**IDD3:** Dual DC Milliamps, 2mA DC



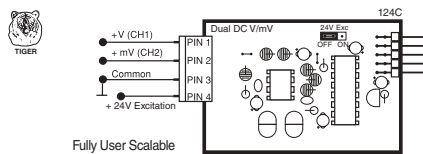
**IDR1:** Dual Resistance Input, 0.2/2/20KΩ



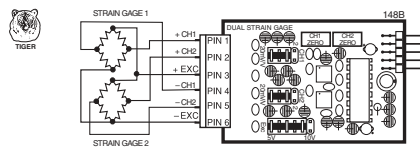
**IDT6:** Dual Input - Thermocouple and Load Cell



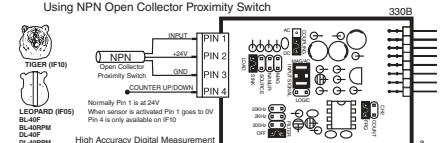
**IDD4:** Dual Input, DCV and DCmV 2V/50mV DC



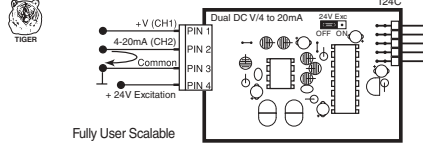
**IDS1:** Dual Strain Gage Input, 4 wire 2mV/V, 20mV/V



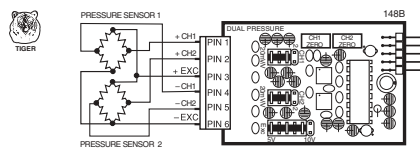
**IF05:** Universal Frequency / RPM  
**IF10:** Univ. Freq. / RPM / UP DOWN Counter



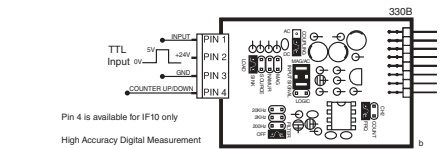
**IDD5:** Dual Input, DCV and 4 to 20mA 2V/4 to 20mA DC



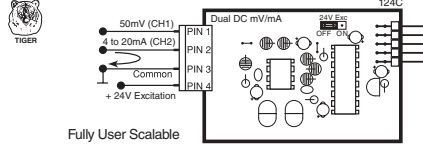
**IDS2:** Dual Pressure Input, 4 wire 2mV/V, 20mV/V



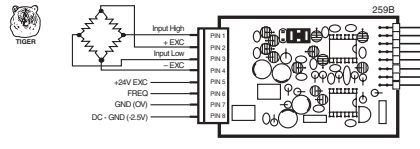
TTL Input Connected to **IF05** and **IF10**



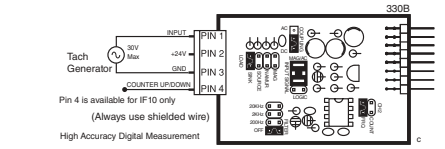
**IDD6:** Dual Input, DC mV and 4 to 20mA 50mV/4 to 20mA DC



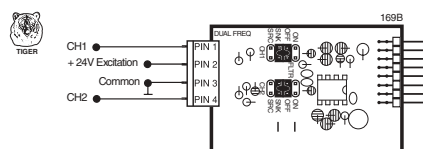
**IDS3:** Dual Input, Strain Gage and Frequency



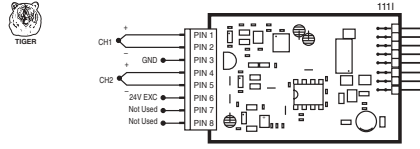
Tach Generator Connected to **IF05** and **IF10**



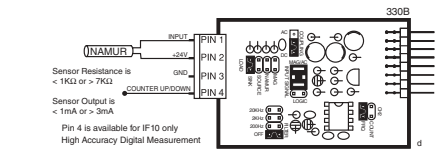
**IDF2:** Dual Frequency



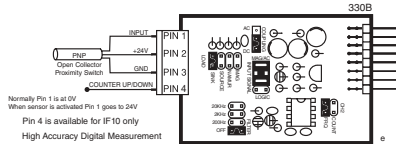
**IDT1:** Dual Thermocouple (J/K/R/S/T/B/N)



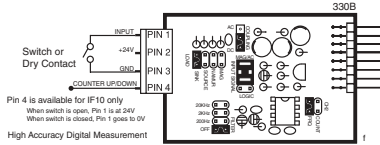
NAMUR Sensor Connected to **IF05** and **IF10**



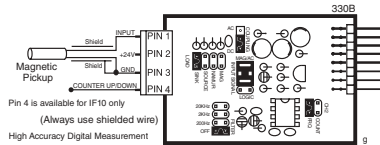
**PNP Open Coll. Prox. Switch Conn. to IF05 and IF10**



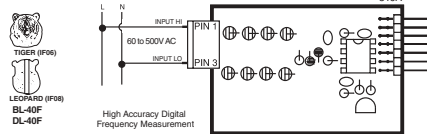
**Switch or Dry Contact Connected to IF05 and IF10**



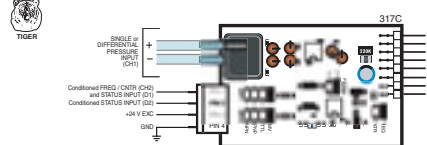
**Magnetic Pickup Connected to IF05 and IF10**



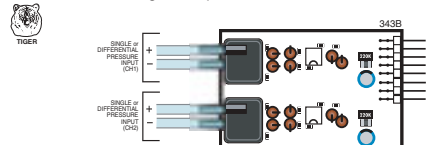
**IF06: Line Frequency (Tiger only)**  
**IF08: Line Frequency (Leopard only)**



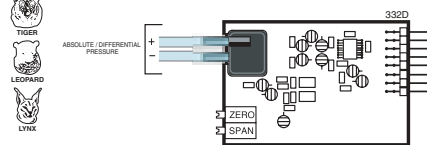
**IGYX: Direct Pressure (Absolute or Differential/Gage) with 2 Digital Inputs.** See below for ordering code options



**IGYY: Dual Direct Pressure (Absolute or Differential/Gage)** see below for ordering code options



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



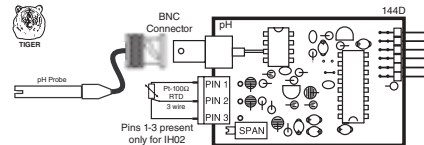
**Ordering Code Options for Direct Pressure (IGYX, IGYY & IGYZ)**

Sensor Range	CH1 Order Code	CH2 Order Code
1 psi Absolute	A	A
1 psi Differential	B	B
3 psi Absolute	C	C
3 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

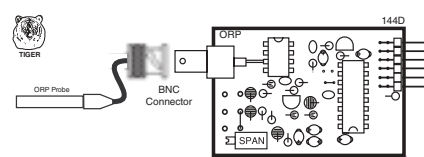
For Single Channel IGYX with two digital inputs, the last digit of order code is always X.

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

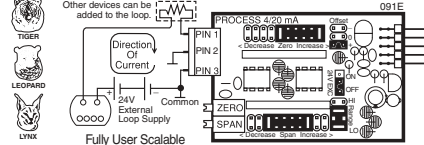
**IHO1: pH**  
**IHO2: pH with Automatic Temperature Compensation**



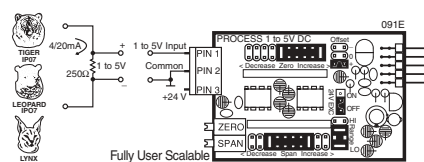
**IOR1: ORP (Oxidation Reduction Potential)**



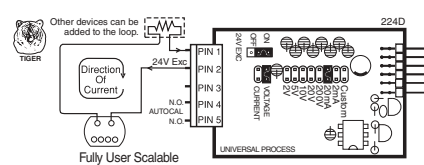
**IPO1: Process Loop, 4-20mA**  
**IPO2: Process Loop, 4-20mA with 24VDC Exc**



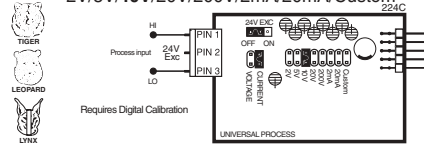
**IPO3: Process Input, 1-5V DC with Offset, 24V Exc**



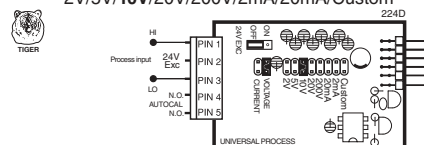
**IPO6: Process Loop, 4-20mA w/24VDC Exc and Autocal**



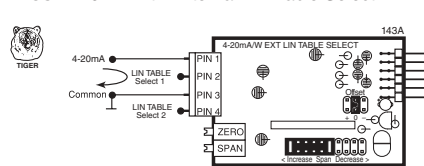
**IPO7: Universal Process Input**  
2V/5V/10V/20V/200V/2mA/20mA/Custom



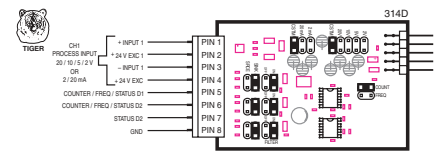
**IPO8: Universal Process Input with Autocal**  
2V/5V/10V/20V/200V/2mA/20mA/Custom



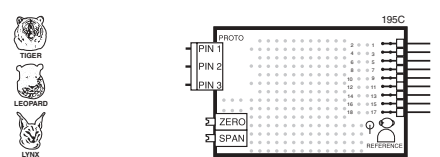
**IPO9: 4-20mA with External LIN Table Select**



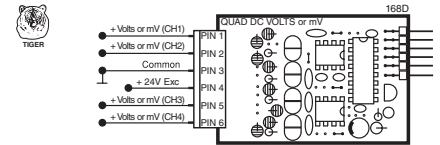
**IP10: Process + 3 Digital Inputs**



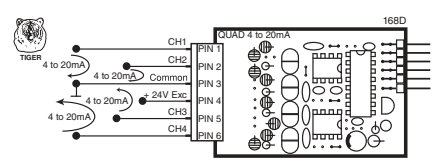
**IPT1: Prototype Board for Custom Design**



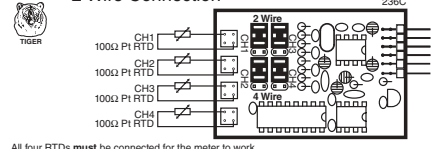
**IQD1: Quad DC Volts, 2V DC**  
**IQD2: Quad DC mV, 50mV DC**



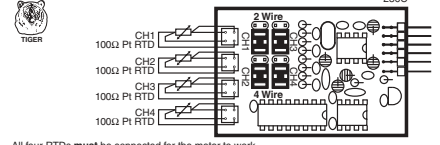
**IQP1: Quad 4 to 20mA**



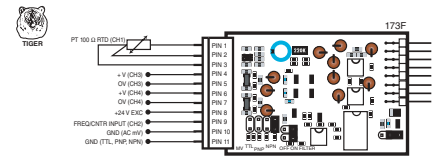
**IQT2: Quad RTD Platinum 100Ω RTD**  
2 Wire Connection



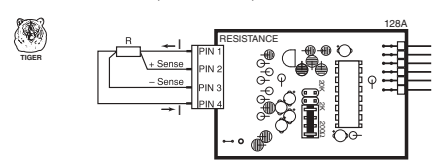
**IQT4: Quad RTD Platinum 100Ω RTD**  
4 Wire Connection



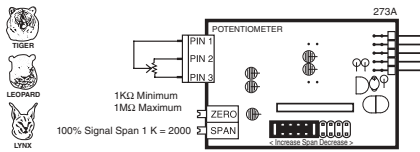
**IQT5: Quad RTD / V / V / FREQ**



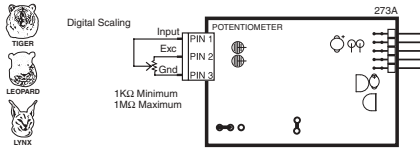
**IRO1: Resistance, 2/3/4-Wire, 200Ω/2KΩ/20KΩ**



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

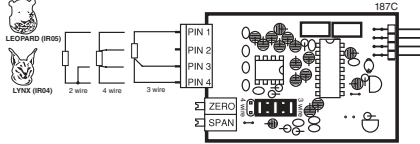


**IR03:** Linear Potentiometer 1KΩ min



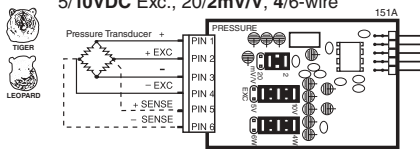
**IR04:** Resistance 2KΩ (Lynx only)

**IR05:** Resistance 2KΩ (Leopard only)

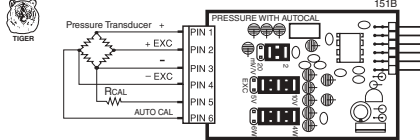


**IS01:** Strain Gage 5/10VDC Exc., 20/2mV/V, 4/6-wire

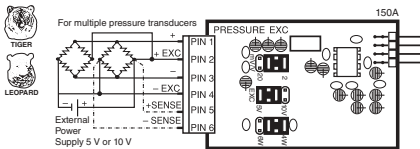
**IS02:** Pressure/Load Cell 5/10VDC Exc., 20/2mV/V, 4/6-wire



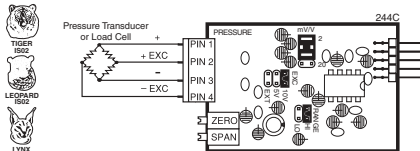
**IS03:** Pressure/Load Cell with AutoCal 5/10VDC Exc., 20/2mV/V, 4-wire



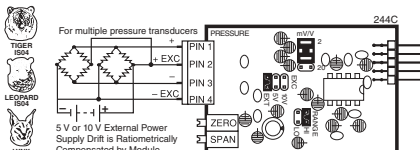
**IS04:** Pressure/Load Cell Ext Exc., 20/2mV/V, 4/6-wire



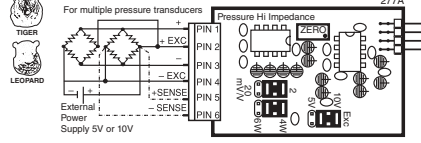
**IS05:** Pressure/Load Cell 20/2mV/V, 5/10V Exc 4-wire



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



**IS07:** Pressure/Load Cell Ext Exc. High Impedance, 20/2mV/V, 4/6-wire

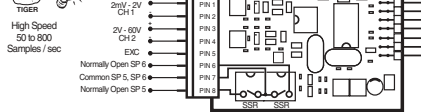


**ISD1:** Smart DC Volts. 16 bit. Optimized for 50 Hz rejection.

**ISD2:** Smart DC Volts. 16 bit. Optimized for 60 Hz rejection.

**ISD3:** Smart DC Volts. 16 bit. 50 Hz rejection w/dual SSRs.

**ISD4:** Smart DC Volts. 16 bit. 60 Hz rejection w/dual SSRs.

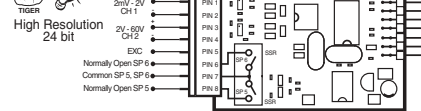


**ISD5:** Smart DC Volts. 24 Bit. 50 Hz rejection.

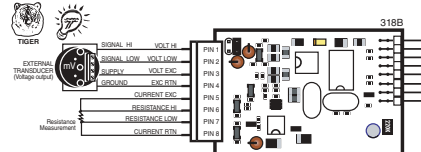
**ISD6:** Smart DC Volts. 24 Bit. 60 Hz rejection.

**ISD7:** Smart DC Volts. 24 Bit. 50 Hz w/dual SSRs.

**ISD8:** Smart DC Volts. 24 Bit. 60 Hz w/dual SSRs.

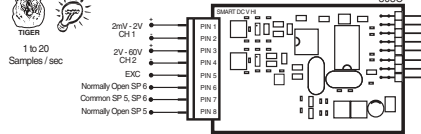


**ISD9:** Smart Voltage and Resistance Input



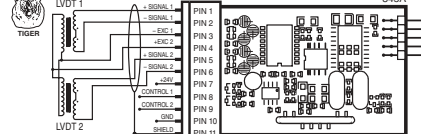
**ISDA:** Smart Dual DC Volts. 16 bit. 50 Hz rejection.

**ISDB:** Smart Dual DC Volts. 16 bit. 60 Hz rejection.

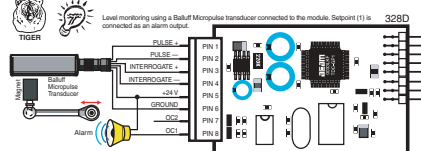


**ISL1:** Smart Dual LVDT. 50 Hz

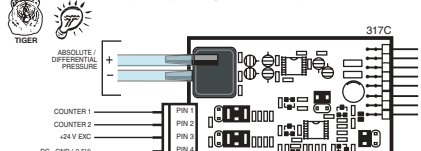
**ISL2:** Smart Dual LVDT. 60 Hz



**ISM1:** Smart Magnetostrictive Input



**ISP1:** Smart Triple Input, Pressure Direct and Dual Counter (Frequency/Counter)

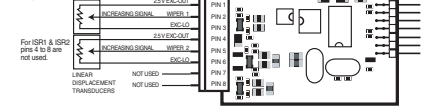


**ISR1:** Smart Single 3-Wire Potentiometer. 50 Hz

**ISR2:** Smart Single 3-Wire Potentiometer. 60 Hz

**ISR3:** Smart Dual 3-Wire Potentiometer. 50 Hz

**ISRA:** Smart Dual 3-Wire Potentiometer. 60 Hz

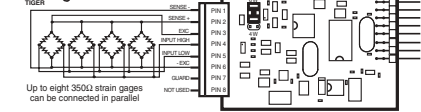


**ISS1:** Smart Pressure/Load Cell. 16 bit (50 Hz rejection)

**ISS2:** Smart Pressure/Load Cell. 16 bit (60 Hz rejection)

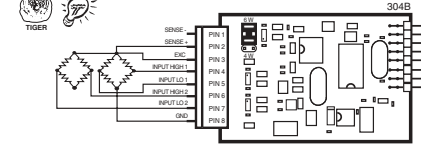
**ISS3:** Smart Pressure/Load Cell. 24 bit (50 Hz rejection)

**ISS4:** Smart Pressure/Load Cell. 24 bit (60 Hz rejection)



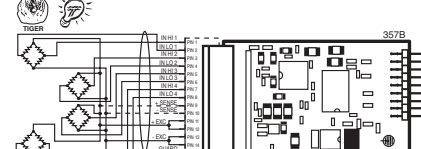
**ISS5:** Dual Smart Pressure. 16 bit. Optimized for 50 Hz rejection.

**ISS6:** Dual Smart Pressure. 16 bit. Optimized for 60 Hz rejection.

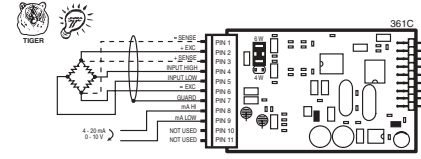


**ISS7:** Smart Quad Pressure/Load Cell. 16 bit. 50 Hz

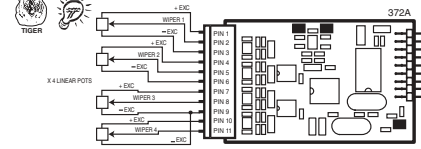
**ISS8:** Smart Quad Pressure/Load Cell. 16 bit. 60 Hz



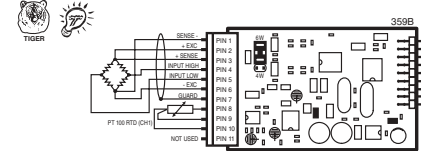
**ISS9:** Smart Dual Input, LC and Process (4-20mA)



**ISSA:** Smart Quad Potentiometer/Resistance

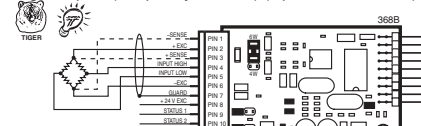


**ISSB:** Smart Dual Input, Load Cell and RTD

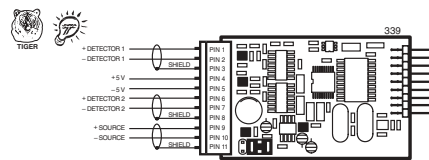


**ISSC:** Smart Triple Input, 16 bit, Load Cell and two Digital Inputs (Frequency/Counter) (Optimized for 50 Hz)

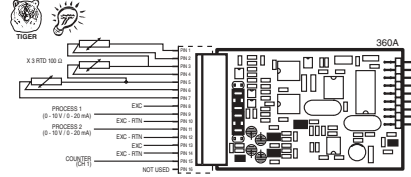
**ISSD:** Smart Triple Input, 16 bit, Load Cell and two Digital Inputs (Frequency/Counter) (Optimized for 60 Hz)



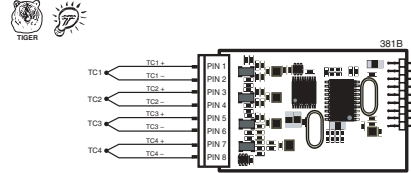
**ISSE:** Smart Dual Photo Diode Input



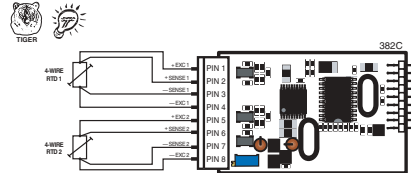
**IST1:** Smart 6 Inputs- 3 RTDs, 2 Proc. & 1 Dig. Input. 50 Hz  
**IST2:** Smart 6 Inputs- 3 RTDs, 2 Proc. & 1 Dig. Input. 60 Hz



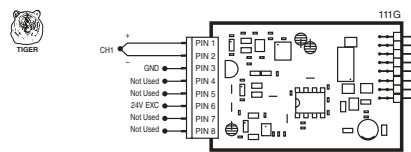
**IST3:** Smart Quad Thermocouple. 50 Hz  
**IST4:** Smart Quad Thermocouple. 60 Hz



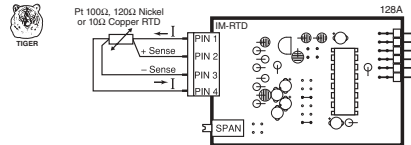
**IST5:** Smart Dual RTD with 0.01° Res. 50 Hz  
**IST6:** Smart Dual RTD with 0.01° Res. 60 Hz



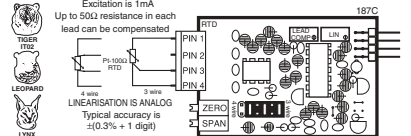
**IT01:** Thermocouple (J/K/R/S/T/B/N)



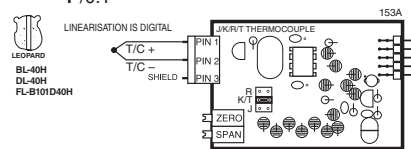
**IT02:** RTD, 100Ω Pt. 2.3.4-wire  
**IT12:** RTD, 120Ω Nickel 2/3/4-wire  
**IT13:** RTD, 10Ω Copper 2/3/4-wire



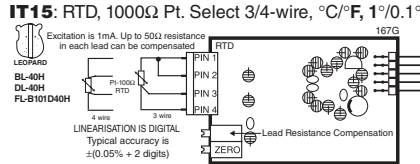
**IT03:** RTD, 100Ω Pt. 2/3/4-wire (-200 to 800°C)  
**IT04:** RTD, 100Ω Pt. 2/3/4-wire (-200 to 1470°F)  
**IT05:** RTD, 100Ω Pt. 2/3/4-wire (-199.9 to 199.9°F)  
**IT14:** RTD, 100Ω Pt. 2/3/4-wire (-199.9 to 199.9°C)



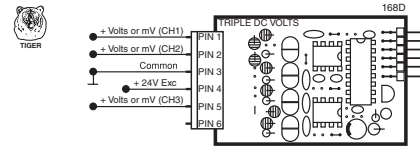
**IT10:** Thermocouple, J/K/R/T, Selectable °C/°F, 1°/0.1°



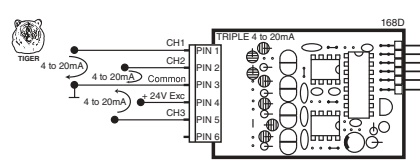
**IT11:** RTD, 100Ω Pt. Select 3/4-wire, °C/°F, 1°/0.1°



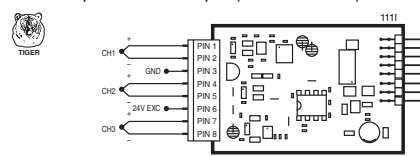
**ITD1:** Triple DC Volts, 2V DC  
**ITD2:** Triple DC mV, 50mV DC



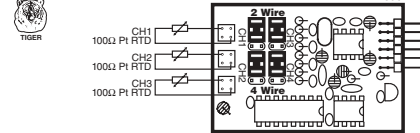
**ITP1:** Triple 4 to 20mA



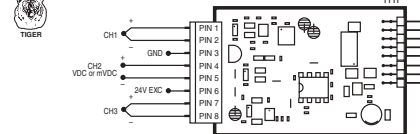
**ITT1:** Triple Thermocouple (J/K/R/S/T/B/N)



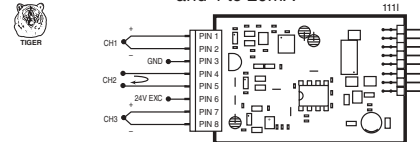
**ITT2:** Triple RTD Platinum 100Ω RTD 2 Wire Connection



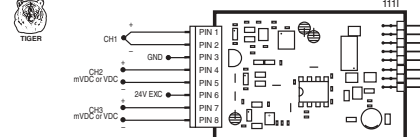
**ITT3:** Triple Input- T/C, T/C (J/K/R/S/T/B/N) and 2VDC Input  
**ITT5:** Triple Input- T/C, T/C (J/K/R/S/T/B/N) and 50mV DC



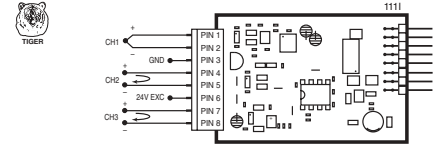
**ITT4:** Triple Input- T/C, T/C (J/K/R/S/T/B/N) and 4 to 20mA



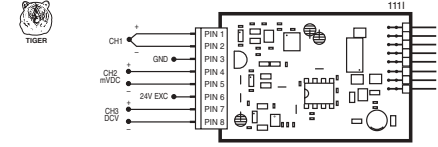
**ITT6:** Triple Input- T/C (J/K/R/S/T/B/N), 50mV DC and 50mV DC  
**ITT7:** Triple Input- T/C (J/K/R/S/T/B/N), 2VDC and 2VDC



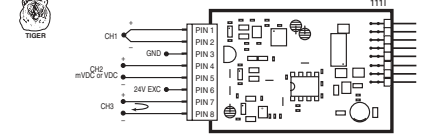
**ITT8:** Triple Input- T/C (J/K/R/S/T/B/N), 4 to 20mA and 4 to 20mA



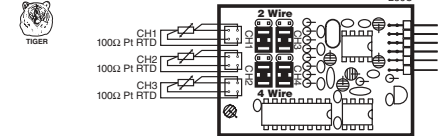
**ITT9:** Triple Input- T/C (J/K/R/S/T/B/N), DCV and 50mV DC



**ITTA:** Triple Input- T/C (J/K/R/S/T/B/N), 4 to 20mA and 50mV DC  
**ITTB:** Triple Input- T/C (J/K/R/S/T/B/N), 4 to 20mA and 2VDC

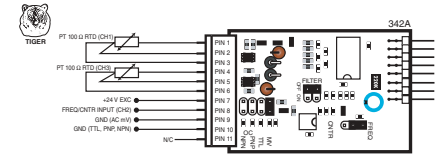


**ITTC:** Triple RTD Platinum 100Ω RTD 4 Wire Connection

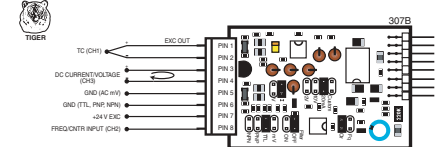


All three RTDs must be connected for the meter to work.

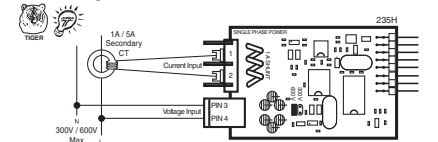
**ITTE:** Triple Input- RTD / RTD / FREQ



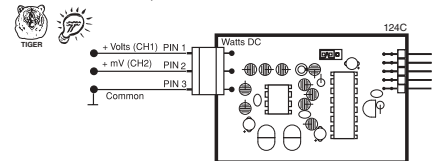
**ITTF:** Triple Input - Thermocouple / 4-20mA / Frequency  
**ITTG:** Triple Input - Thermocouple / V / Frequency



**IWO1:** Single Phase Power, 300V/1A  
**IWO2:** Single Phase Power, 300V/5A  
**IWO4:** Single Phase Power, 600V/1A  
**IWO5:** Single Phase Power, 600V/5A



**IWO3:** DC-Watts, 10V/50mV DC





# Tiger 320 Series Ordering Info

INTERNATIONAL
DIN
CASES
1/32
2/32
1/8

BASIC MODEL #	DISPLAY	POWER SUPPLY	INPUT MODULE	ANALOG OUTPUT*	SERIAL OUTPUT*	RELAY OUTPUT*	OPTIONS / ACCESSORIES
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OA <input type="text"/>

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 the DeviceNet™ serial output option is selected, a meter ordered with any of these outputs 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: DI-50E-DR-PS1-IA01-AIC-OR12-OA2 plus SA-DI/OM-CB and an OP-N4X/96X48, \$180 + N/C + N/C + 35 + 50 + 60 + 7 + 20 = \$352**

Basic Model Number	Description	US\$ List
<b>► Economical Tiger 320 E version with 4K EEPROM as standard.</b>		
Memory upgrades are available to 32K (enables 3 additional linearizing tables), and to 1MB for data logging. See Special Options on page 23 for prices.		
DI-50E . . . . .	.96x48mm, 5 Digit, E Version . . . . .	\$180
DI-60E . . . . .	.96x48mm, 6 Digit, E Version . . . . .	\$225
DI-60AE . . . . .	.96x48mm, 6 Digit, Alphanumeric, E Version . . . . .	\$275
DI-60XE . . . . .	.96x48mm, 6 Digit, LCD, E Version . . . . .	\$300
DI-602AE . . . . .	.96x48mm, 6 Digit x 2 Display, LED, E Version . . . . .	\$350
DI-50EAN6 . . . . .	.96x48mm, 5 Digit, 6 Annunciators, E Version . . . . .	\$250
DI-503E . . . . .	.96x48mm, 5 Digit x 3 displays, E Version . . . . .	\$260
DI-50EB51 . . . . .	.96x48mm, 5 Digit, 51 Segment bar, E Version . . . . .	\$250
DI-802XAE . . . . .	.96x48mm, 8 Digit x 2 Display LCD Alphanumeric, E Vers. . . . .	\$375
FI-B101D50E . . . . .	.144x36mm, 101 Segment Bargraph, 5 Digit, E Version . . . . .	\$280
GI-50E . . . . .	.144x72mm, 5 Digit, E Version . . . . .	\$395
GI-50EB101 . . . . .	.144x72mm, 5 Digit, 101 Segment Bar, E Version . . . . .	\$495

<b>► Top of the line, Tiger 320 T version with macro programming capability with 32K EEPROM as standard.</b>		
A Memory upgrade is available to 1MB for data logging. See Special Options on page 23 for prices.		
DI-50T . . . . .	.96x48mm, 5 Digit, T Version . . . . .	\$280
DI-60T . . . . .	.96x48mm, 6 Digit, T Version . . . . .	\$325
DI-60AT . . . . .	.96x48mm, 6 Digit, Alphanumeric, T Version . . . . .	\$375
DI-60XT . . . . .	.96x48mm, 6 Digit, LCD, T Version . . . . .	\$400
DI-60AT5C . . . . .	.96x48mm, 6 Digit, Alphanumeric, 5 Control Buttons, T Version . . . . .	\$425
DI-602AT5C . . . . .	.96x48mm, 6 Digit x 2 Display, LED, T Version . . . . .	\$450
DI-50TAN6 . . . . .	.96x48mm, 5 Digit, 6 Annunciators, T Version . . . . .	\$350
DI-503T . . . . .	.96x48mm, 5 Digit x 3 displays, T Version . . . . .	\$360
DI-50TB51 . . . . .	.96x48mm, 5 Digit, 51 Segment bar, T Version . . . . .	\$350
DI-802XAT . . . . .	.96x48mm, 8 Digit x 2 Display LCD Alphanumeric, T Vers. . . . .	\$475
FI-B101D50T . . . . .	.144x36mm, 101 Segment Bargraph, 5 Digit, T Version . . . . .	\$380
GI-50T . . . . .	.144x72mm, 5 Digit, T Version . . . . .	\$495
GI-50TB101 . . . . .	.144x72mm, 5 Digit, 101 Segment Bar, T Version . . . . .	\$595

<b>► Text Based Tiger Meters</b>		
Tigers with a simplified "text based" menu, specially designed for AC or DC voltage and current measurement and control applications. Please note that these Tigers will accept only LYNX signal conditioning modules (see list, page 34). They will, however, accept all the Tiger output modules (page 23).		
DI-60AM . . . . .	.96x48mm, 6 Digit Alphanumeric LED . . . . .	Call
DI-60XM . . . . .	.96x48mm, 6 Digit numeric LCD . . . . .	Call

<b>► Older Generation Tiger Meters</b>		
DI-45S . . . . .	Replaced by DI-50E (see above) . . . . .	-----
DI-45U . . . . .	Replaced by DL-40PSF Leopard Family (pg. 27) . . . . .	-----
DI-50S . . . . .	Replaced by DI-50T (see above) . . . . .	-----
DI-50D . . . . .	Now being replaced by DI-50DR and DI-50DI . . . . .	\$180
*DI-50DR . . . . .	Accepts relay output modules (see pg. 23) . . . . .	\$180
Note: Both the DI-50D and DI-50DR use the older type IM input modules not shown here.		
*DI-50DI . . . . .	Accepts relay output modules (see pg. 23) and I-Series Input Modules (see pg. 22), but only single input modules IA01 to IA09 . . . . .	\$180
*DI-50DR & DI-50DI....Are superseded by the DI-50E Tiger 320 (see above) . . . . .		

Order Code Suffix	Description	US\$ List
<b>Standard Options for Models listed Above</b>		

Order Code Suffix	Description	US\$ List
<b>► DISPLAY</b>		

<b>For DI-50E &amp; T, DI-60E &amp; T, DI-60AE &amp; AT, DI-60AM, GI-50E &amp; T Only</b>		
DR . . . . .	Red LED . . . . .	\$0
DG . . . . .	Green LED . . . . .	\$10
DB . . . . .	Super-bright Red LED . . . . .	\$25
ND . . . . .	No Display - For use when ordering a meter with the Remote Display Option with cable & no display, part numbers OP-DI/RDND or OP-DI/RDND-D must be added to the order, see Accessories, page 25. (Available for DI-series only) . . . . .	\$0

<b>For DI-602AE and DI-602AT5C Dual Display Meters Only</b>		
RR . . . . .	2 x Red LED, 0.39 inch high . . . . .	\$0
GG . . . . .	2 x Green LED, 0.39 inch high . . . . .	\$20
RRL . . . . .	Red Display, Large Buttons . . . . .	\$10
GGL . . . . .	Green Display, Large Buttons . . . . .	\$30
Custom . . . . .	2 x LED, 0.39 inch high, custom color combination . . . . .	Call

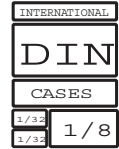
<b>For DI-503E and DI-503T Triple Display Meters Only</b>		
RRR . . . . .	3 x Red LED, 0.31 inch high . . . . .	\$0
BBB . . . . .	3 x Bright Red LED, 0.31 inch high . . . . .	\$75
GGG . . . . .	3 x Green LED, 0.31 inch high . . . . .	\$30
Custom . . . . .	3 x LED, 0.31 inch high, custom color combination . . . . .	Call

<b>For DI-50EAN6 and DI-50TAN6 Digital Meter Annunciators Only</b>		
DRR . . . . .	Red LED, 0.31 inch high, Red Annunciators . . . . .	\$0
DRG . . . . .	Red LED, 0.31 inch high, Green Annunciators . . . . .	\$10
DRC . . . . .	Red LED, 0.31 inch high, Custom Color Combination Annunciators . . . . .	Call
DGR . . . . .	Green LED, 0.31 inch high, Red Annunciators . . . . .	\$10
DGG . . . . .	Green LED, 0.31 inch high, Green Annunciators . . . . .	\$20
DGC . . . . .	Green LED, 0.31 inch high, Custom Color Combination Annunciators . . . . .	Call
DBR . . . . .	Super-bright Red LED, 0.31 inch high, Red Annunciators . . . . .	\$25
DBG . . . . .	Super-bright Red LED, 0.31 inch high, Green Annunciators . . . . .	\$35
DBC . . . . .	Super-bright Red LED, 0.31 inch high, Custom Color Comb. Annunci. . . . .	Call

<b>For DI-50EB51 and DI-50TB51, 5 Digit 51 Segment Bar Meter Only</b>		
VRR . . . . .	Red 5 Digit DPM w/Red LED Vertical Bargraph . . . . .	\$0
VRG . . . . .	Red 5 Digit w/Green LED Vertical Bargraph . . . . .	\$15
VGR . . . . .	Green 5 Digit w/Red LED Vertical Bargraph . . . . .	\$10
VGG . . . . .	Green 5 Digit w/Green LED Vertical Bargraph . . . . .	\$25



# Tiger 320 Series Ordering Info Continued



**Order Code Suffix Description US\$ List**

**For DI-60AT5C Meter Only**



<b>DR</b> . . . . .	Red LED	\$.00
DG . . . . .	Green LED	\$.10
RLB . . . . .	Red Display, Large Buttons	\$.10
GLB . . . . .	Green Display, Large Buttons	\$.20

**For DI-60XE & T, DI-60XM, DI-802XAE and DI-802XAT Meters Only**



<b>DX</b> . . . . .	LCD Display	\$.00
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**For FI-B101D50E and FI-B101D50T Bargraphs Only**



<b>VRR</b> . . . . .	Red LED Vertical Bargraph w/five 0.31" Red Digits	\$.00
VGR . . . . .	Green LED Vertical Bargraph w/five 0.31" Red LED Digits	\$.15
VTR . . . . .	Tri-Color Vertical Bargraph w/five 0.31" Red LED Digits	\$.45
VRG . . . . .	Red LED Vertical Bargraph w/five 0.31" Green LED Digits	\$.10
VGG . . . . .	Green LED Vertical Bargraph w/five 0.31" Green LED Digits	\$.25
VTG . . . . .	Tri-Color Vertical Bargraph w/five 0.31" Green LED Digits	\$.55

**For GI-50EB101 & GI-50TB101**



**5 Digit 101 Segment Bar & 5 Digit Meters Only**

<b>HRR</b> . . . . .	Red 5 Digit DPM w/Red LED Horizontal Bargraph	\$.00
HRG . . . . .	Red 5 Digit 1.0" LED DPM w/Green LED Horizontal Bargraph	\$.15
HGR . . . . .	Green 5 Digit 1.0" LED DPM w/Red LED Horizontal Bargraph	\$.10
HGG . . . . .	Green 5 Digit 1.0" LED DPM w/Green LED Horizontal Bargraph	\$.25
HRT . . . . .	Red 5 Digit 1.0" LED DPM w/Tri-Color Horizontal Bargraph	\$.45
HGT . . . . .	Green 5 Digit 1.0" LED DPM w/Tri-Color Horizontal Bargraph	\$.55

**POWER SUPPLIES**

<b>PS1</b> . . . . .	.85-265VAC/95-370VDC	\$.00
<b>PS2</b> . . . . .	15-48VAC/10-72VDC	\$.35

**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/ <b>600V AC</b>	\$.35
IA02	AC-Volts Scaled RMS, 200mV/ <b>2V/20V AC</b>	\$.35
IA03	AC-mA Scaled RMS, 2/ <b>20/200mA AC</b>	\$.40
IA04	AC-Amps Scaled RMS, <b>0-1 Amp AC (0-100.00)</b>	\$.40
IA05	AC-Amps Scaled RMS, <b>0-5 Amp AC (0-100.00)</b>	\$.40
IA06	AC-Volts True RMS, 200/ <b>600V AC</b>	\$.55
IA07	AC-Volts True RMS, 200mV/ <b>2V/20V AC</b>	\$.55
IA08	AC-mA True RMS, 2/ <b>20/200mA AC</b>	\$.55
IA09	AC-Amps True RMS, <b>0-1 Amp AC (0-100.00)</b>	\$.55
IA10	AC-Millivolt, Scaled RMS, <b>100mV AC</b>	\$.55
IA11	AC-Amps True RMS, <b>0-5 Amp AC (0-100.00)</b>	\$.55
IA12	AC-Millivolt, True RMS, <b>100mV AC</b>	\$.55
IC02	Quadrature Counter	\$.65
IC03	Quadrature Counter with Dual SSRs	\$.105
ID01	DC-Volts, 2/ <b>20/200V/Custom w/24V DC Exc</b>	\$.25
ID02	DC-Millivolt, 20/50/ <b>100/200mV DC w/24V DC Exc</b>	\$.35
ID03	DC-Milliamp, 2/ <b>20/200mA DC w/24V DC Exc</b>	\$.25
ID04	DC-Amps, <b>5A DC</b>	\$.50
ID05	DC-Volts 2/ <b>20/200/Custom V DC w/Offset and 24V Exc.</b>	\$.45
ID06	DC-Volts 2/ <b>20/200/Custom V DC w/Ext.Decimal Select</b>	\$.40
ID07	DC-Milliamp, 2/ <b>20/200mA DC w/Offset and 24V Exc</b>	\$.35
ID08	DC-Volts, 2/ <b>20/200/Custom V DC w/Ext.LIN Table Select</b>	\$.40
ID09	DC-Amps, <b>1A DC</b>	\$.50
IDC1	Dual Input, Counter	\$.75
IDD1	Dual Input, Volts DC/Volts DC, <b>2V DC</b>	\$.65
IDD2	Dual Input DC-Millivolts, <b>50mV DC(100.00)</b>	\$.65
IDD3	Dual Input DC-Milliamps, <b>2mA DC</b>	\$.65
IDD4	Dual Input, Volts/millivolts <b>2V/50mV DC(100.00)</b>	\$.65
IDD5	Dual Input DC Volts and 4-20 mA	\$.65
IDD6	Dual Input DC mV and 4-20 mA	\$.65
IDF2	Dual Frequency	\$.85
IDP1	Dual Process Loop Input, <b>4-20mA (0-100.00)</b>	\$.65
IDP2	Dual Input, 3-wire RTD / <b>4-20mA (0-100.00)</b>	\$.65

**Order Code Suffix Description US\$ List**

IDP3	Dual Input, K/R/S/T/J Thermocouple / <b>4-20mA(0-100.00)</b>	\$.65
IDR1	Dual Resistance Input, 0.2/ <b>2/20KΩ</b>	\$.65
IDS1	Dual Strain Gage Input, <b>4 wire 2mV/V</b>	\$.125
IDS2	Dual Pressure Input, <b>4 wire 2mV/V</b>	\$.125
IDS3	Dual Input, Strain Gage and Frequency	\$.95
IDT1	Dual Thermocouple Input <b>J/K/R/T</b>	\$.75
IDT2	Dual RTD Input, 2- and 3-wire, <b>100Ω Pt</b>	\$.65
IDT3	Dual Input, 3-wire RTD / <b>Volts 2V DC</b>	\$.65
IDT4	Dual Input, Thermocouple / Volts 2V DC	\$.65
IDT5	Dual Input, K/R/S/T/J Thermocouple / DC-Millivolts, 50mV DC	\$.65
IDT6	Dual Input, Thermocouple and Load Cell	\$.95
IF06	Line Frequency, 50-500VAC	\$.55
IF10	Universal Frequency / RPM / UP DOWN Counter	\$.55
IGY*	Direct Pressure (Abs. or Differential/Gage) with 2 Digital Inputs	\$.125
IGY*	Dual Direct Pressure (Absolute or Differential/Gage)	\$.175
IGYZ*	Universal Direct Pressure	\$.100

**\*View the IG- Ordering Code on page 18 to determine the value for X, Y & Z (IGAA to IGKZ)**

IH01	pH Indication w/ Manual Temperature Compensation	\$.75
IH02	pH Indication w/ Automatic Temperature Compensation	\$.95
IOR1	Oxidation Reduction Potential (ORP)	\$.75
IP01	Process Loop, <b>4-20mA (0-100.00)</b>	\$.35
IP02	Process Loop, <b>4-20mA(0-100.00)</b> w/24VDC Exc	\$.45
IP03	Process Input, <b>1-5V DC(0-100.00)</b> w/Offset, 24V Exc	\$.45
IP06	Process Loop, <b>4-20mA(0-100.00)</b> w/24VDC Exc and Autocal	\$.45
IP07	Universal Process 2V/5V/ <b>10V/20V/200V/2mA/20mA/Custom</b>	\$.30
IP08	Universal Process 2V/5V/ <b>10V/20V/200V/2mA/20mA/Custom w/Autocal</b>	\$.55
IP09	Process Loop, <b>4-20mA (0-100.00)</b> w/ External Lin Table select	\$.40
IP10	Process + 3 Digital Inputs	\$.75
IPT1	Prototype Board for Custom Design	\$.15
IQD1	Quad DC Volts, 2V DC	\$.125
IQD2	Quad DC-Millivolts, 50mV DC(100.00)	\$.125
IQP1	Quad Process Loop, 4-20mA (0-100.00)	\$.125
IQT2	Quad RTD Input, 2-Wire, 100Ω Pt	\$.125
IQT4	Quad RTD Input, 4-wire, 100Ω Pt	\$.125
IQT5	Quad - Thermocouple / V / V / Frequency	\$.125
IR01	Resistance, 2-, <b>3-</b> , or 4-Wire, 200Ω/ <b>2KΩ/20KΩ</b>	\$.35
IR02	3-Wire Potentiometer 1KΩ min (0-F.S.)	\$.40
IR03	Linear Potentiometer, 3-wire, 1KΩ min	\$.40
ISD1*	Smart DC Volts, High Speed 16 bit, 1, 10, 50, 200, 400, 800 Hz update rates	\$.65
ISD2**	Smart DC Volts, High Speed 16 bit, 1, 10, 60, 240, 480, 960 Hz update rates	\$.65
ISD3*	Smart DC Volts, High Speed 16 bit, 1Hz to 800Hz w/dual isolated SSRs	\$.105
ISD4**	Smart DC Volts, High Speed 16 bit, 1Hz to 960Hz w/dual isolated SSRs	\$.105
ISD5*	Smart DC Volts, Hi Resolution & Accuracy 24 bit (1 million counts) 1-400Hz	\$.175
ISD6**	Smart DC Volts, Hi Resolution & Accuracy 24 bit (1 million counts) 1-480Hz	\$.175
ISD7*	Smart DC Volts, Hi Resolution & Accuracy 24 bit 1-400Hz w/dual isolated SSRs	\$.215
ISD8**	Smart DC Volts, Hi Resolution & Accuracy 24 bit 1-480Hz w/dual isolated SSRs	\$.215
ISD9	Smart Voltage Resistance	\$.125
ISDA*	Smart Dual Input DC Volts, 16 bit, 1Hz to 20Hz update (50 Hz rejection)	\$.100
ISDB**	Smart Dual Input DC Volts, 16 bit, 1Hz to 20Hz update (60 Hz rejection)	\$.100
ISL1*	Smart Dual LVDT (50 Hz rejection)	\$.195
ISL2**	Smart Dual LVDT (60 Hz rejection)	\$.195
ISM1	Smart Magnetostrictive (Recommended for T Version meters)	\$.125
IS01	Strain Gage 5/10VDC Exc., 20/ <b>2mV/V, 4/6-wire</b>	\$.55
IS02	Pressure 5/10VDC Exc., 20/ <b>2mV/V, 4- or 6-wire</b>	\$.55
IS03	Pressure 5/10VDC Exc., 20/ <b>2mV/V, 4/6-wire w/Autocal</b>	\$.65
IS04	Pressure Ext Exc., 20/2mV/V, <b>4- or 6-wire</b>	\$.45
IS05	Pressure/Load Cell 20/2mV/V, 5/10V Exc 4-wire	\$.55
IS06	Pressure/Load Cell Ext Exc., 20/2mV/V, 4-wire	\$.55
IS07	Pressure 20/2mV/V with High Impedance and External Excitation	\$.65
ISP1	Smart Triple Input, Pressure Direct and Dual Counter (Frequency/Counter)	\$.150
ISR1*	Smart Single 3-wire Potentiometer (50 Hz)	\$.105
ISR2**	Smart Single 3-wire Potentiometer (60 Hz)	\$.105
ISR3*	Smart Dual 3-wire Potentiometer (50 Hz)	\$.125
ISR4**	Smart Dual 3-wire Potentiometer (60 Hz)	\$.125
ISS1*	Smart Pressure/Load Cell. Standard Resolution 16 bit (50 Hz rejection)	\$.75
ISS2**	Smart Pressure/Load Cell. Standard Resolution 16 bit (60 Hz rejection)	\$.75
ISS3*	Smart Pressure/Load Cell. Hi Res & Accuracy 24 bit (50 Hz rejection)	\$.150
ISS4**	Smart Pressure/Load Cell. Hi Res & Accuracy 24 bit (60 Hz rejection)	\$.150
ISS5*	Dual Smart Pressure/Load Cell. Standard Resolution 16 bit (50 Hz rejection)	\$.125
ISS6**	Dual Smart Pressure/Load Cell. Standard Resolution 16 bit (60 Hz rejection)	\$.125
ISS7*	Smart Quad Pressure/Load Cell (50 Hz)	\$.150
ISS8**	Smart Quad Pressure/Load Cell (60 Hz)	\$.150
ISS9	Smart Dual Input, Load Cell and Process (4-20mA)	\$.95
ISSA	Smart Quad Potentiometer/Resistance	\$.150
ISSB	Smart Dual Input, Load Cell and RTD	\$.95
ISSC*	Smart Triple Input, Load Cell and two Digital Inputs (Frequency/Counter)	\$.125
ISSD**	Smart Triple Input, Load Cell and two Digital Inputs (Frequency/Counter)	\$.125
ISSE	Smart Dual Photo Diode Input	\$.125



# Tiger 320 Series Ordering Info Continued

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Part Number	Description	US\$ List
IST1*	Smart Six Inputs, 3 Pt 100 RTD, 2 Process and 1 Digital Input (50 Hz)	\$150
IST2**	Smart Six Inputs, 3 Pt 100 RTD, 2 Process and 1 Digital Input (60 Hz)	\$150
IST3*	Smart Quad Thermocouple (50 Hz)	\$150
IST4**	Smart Quad Thermocouple (60 Hz)	\$150
IST5*	Smart Dual RTD (50 Hz)	\$125
IST6**	Smart Dual RTD (60 Hz)	\$125
IT01	Thermocouple Input, J/K/R/S/T/B/N	\$30
IT02	RTD, 100Ω Pt. 2-, 3-, or 4-wire	\$35
IT03	RTD, 100Ω Pt. 2/3/4-wire (-200 to 800°C)	\$40
IT04	RTD, 100Ω Pt. 2/3/4-wire (-200 to 1470°F)	\$40
IT05	RTD, 100Ω Pt. 2/3/4-wire (-199.9 to 199.9°F)	\$40
IT12	RTD, 120Ω Nickel 2/3/4-wire	\$35
IT13	RTD, 10Ω Copper 2/3/4-wire	\$35
IT14	RTD, 100Ω Pt. 2/3/4-wire (-199.9 to 199.9°C)	\$40
ITD1	Triple DC Volts, 2V DC	\$95
ITD2	Triple DC-Millivolts, 50mV DC(100.00)	\$95
ITP1	Triple Process Loop, 4-20mA (0-100.00)	\$95
ITT1	Triple Thermocouple	\$95
ITT2	Triple RTD Input, 2-wire, 100Ω Pt	\$95
ITT3	Triple Input, Dual Thermocouple J/K/R/S/T/B/N and DCV 2V	\$95
ITT4	Triple Input, Dual Thermocouple J/K/R/S/T/B/N and 4 to 20mA	\$95
ITT5	Triple Input, Dual Thermocouple J/K/R/S/T/B/N and DC MV	\$95
ITT6	Triple Input, Thermocouple J/K/R/S/T/B/N and Dual DC MV	\$95
ITT7	Triple Input, Thermocouple J/K/R/S/T/B/N and Dual DC Volts	\$95
ITT8	Triple Input, Thermocouple J/K/R/S/T/B/N and Dual 4-20mA	\$95
ITT9	Triple Input, Thermocouple J/K/R/S/T/B/N and DC Volt and DC MV	\$95
ITTA	Triple Input, Thermocouple J/K/R/S/T/B/N and 4-20mA and DC MV	\$95
ITTB	Triple Input, Thermocouple J/K/R/S/T/B/N and 4-20mA and DC Volt	\$95
ITTC	Triple RTD Input, 4-Wire, 100Ω Pt	\$95
ITTE	Triple - RTD / RTD / Frequency	\$125
ITTF	Triple Input, Thermocouple / 4-20mA / Frequency	\$95
ITTG	Triple Input, Thermocouple / V / Frequency	\$95
IW01	Single Phase Power (Watts, V, A, Hz, PF, Whr) <b>300V/1A</b> , 600V/1A	\$75
IW02	Single Phase Power (Watts, V, A, Hz, PF, Whr) <b>300V/5A</b> , 600V/5A	\$75
IW03	DC-Watts, <b>200V DC/50mV DC</b> from Shunt ( <b>0-100.00</b> )	\$75
IW04	Single Phase Power, <b>600V/1A</b>	\$75
IW05	Single Phase Power, <b>600V/5A</b>	\$75

\*Optimized for 50 Hz rejection. \*\*Optimized for 60 Hz rejection.

### ANALOG OUTPUT

AIC	Isolated 16 Bit Current Output, 4-20mA	\$50
AIV	Isolated 16 Bit Voltage Output, 0-10VDC	\$50
ADV	Isolated 16 Bit Voltage Output, Dual 0-10VDC	\$90

► **SERIAL OUTPUT** PC Based configuration Utility software is available for free download from [www.texmate.com](http://www.texmate.com).

S2	Isolated ASCII Code RS-232 (Requires Cable, See Accessories)*	\$65
S4	Isolated ASCII Code RS-485 (Requires Cables, See Accessories)*	\$75
S5	Isolated ModBus Protocol RS232 (Requires Cables, See Accessories)*	\$85
S6	Isolated ModBus Protocol RS485 (Requires Cables, See Accessories)*	\$95

\*FI Series also requires CN-PUSH/FI or CN-L15.

### DeviceNet™

S7	Isolated DeviceNet™ Output for DI models only, includes a special Output Carrier Board that accepts analog outputs and I/O modules	\$150
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### Ethernet

S8	Ethernet Output for DI models only, includes a special Output Carrier Board that accepts analog outputs and I/O modules	\$150
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### RELAY OUTPUT for FI and GI MAIN BOARDS

These meters support up to six setpoints. Relay outputs for one to four setpoints can be ordered for factory installation on the main board in any required combination of up to two 10A form C and two 5A form A relays. The FI has two additional setpoints provided as single or dual opto isolated SSRs, which are ordered as Special Options, factory installed on the FI Output Module Carrier Board. The GI accepts Relay Output Modules that plug into the GI Output Module Carrier Board, however, setpoints 1,2,3 & 4 are common with any relays mounted on the main board.

R1	Single 5A Form A Relay	\$30
R2	Dual 5A Form A Relays	\$55
R11	Single 10A Form C Relay	\$35
R12	Dual 10A Form C Relays	\$65
R13	Dual 10A Form C & One 5A Form A Relays	\$90
R14	Dual 10A Form C & Dual 5A Form A Relays	\$110
R15	Single 10A Form C & Dual 5A Form A Relays	\$80
R16	Single 10A Form C & Single 5A Form A Relays	\$60

Part Number	Description	US\$ List
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### ► RELAY OUTPUT MODULES for DI & GI Models

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

OR11	One 10 Amp Form C Relay, Isolated	\$30
OR15	One 10 Amp Form C and Two 5 Amps Form A Relays	\$75
OR16	One 10 Amp Form C and One 5 Amp Form A Relays	\$55
OR12	Two 10 Amp Form C Relays, Isolated	\$60
OR14	Two 10 Amp Form C and Two 5 Amps Form A Relays	\$105
OR23	Two 10 Amp Form C and One 5 Amp Form A Relay, Isolated	\$85
OR25	One 10A Form C and Two 5A Form A Relays, Isolated	\$75
OR31	One 5 Amp Form A Relay, Isolated	\$25
OR32	Two 5 Amp Form A Relays, Isolated	\$50
OR33	Three 5 Amp Form A Relays, Isolated	\$70
OR34	Four 5 Amp Form A Relays, Isolated	\$90
OR45	Five 5 Amp Form A Relays, common in groups of three	\$110
OR46	Six 5 Amp Form A Relays, common in groups of three	\$130

### Solid State Relay (SSR) Output Modules DC Only

OR51	One 400V DC Solid State Relay (SSR) 210mA	\$25
OR52	Two 400V DC Solid State Relays (SSR) 210mA	\$50
OR53	Three 400V DC Solid State Relays (SSR) 210mA	\$70
OR54	Four 400V DC Solid State Relays (SSR) 210mA	\$90

### Solid State Relay (SSR) Output Modules AC/DC

OR61	One 400V AC/DC Solid State Relay (SSR) 140mA	\$25
OR62	Two 400V AC/DC Solid State Relays (SSR) 140mA	\$50
OR63	Three 400V AC/DC Solid State Relays (SSR) 140mA	\$70
OR64	Four 400V AC/DC Solid State Relays (SSR) 140mA	\$90

### Open Collector / TTL / 5V DC Outputs to Drive External SSRs or Logic Input Devices

OR71	Six 5V DC 50mA outputs	\$35
OR72	Six open collector outputs	\$35

### Opto Isolated I/O Modules for Connecting to External Breakout Box

OR81	Six Outputs & Six Inputs (T Version Only)	\$120
OR82	Sixteen Outputs & Six Inputs (T Version Only)	\$175

### Data Acquisition Module with Removable Flash Card Memory and Two SSR Outputs

OR91	Module with 4 Meg Memory	\$150
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### Special Options and Accessories

Part Number	Description	US\$ List
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### ► SPECIAL OPTIONS

#### Output Module Carrier Boards

\*One carrier board must be ordered with any meter that includes any one or more of the following options: Analog Output, Serial Output and/or Relay Output Modules. The exception is when the DeviceNet™ option is ordered, as it includes a special Output Carrier Board that accepts analog output options and relay output modules.

SA-DI/OM-CB	Output Module Carrier Board, DI series	\$7
SA-FI/OM-CB	Output Module Carrier Board, FI series (see SSR below)**	\$7
**SA-FI/OIS1	One 400V AC/DC SSR, Factory Installed on FI carrier board	\$25
**SA-FI/OIS2	Two 400V AC/DC SSRs, Factory Installed on FI carrier board	\$35
SA-GI/OM-CB	Output Module Carrier Board, GI series	\$7

#### Memory Upgrade and Real Time Clock Options for DI- Series E Version Meters

OP-P1MB/R-E	1MB EEPROM with Real Time Clock	\$95
OP-P1MB-E	1MB EEPROM	\$50
OP-P32K/R-E	32K EEPROM with Real Time Clock	\$65
OP-P32K-E	32K EEPROM	\$20
OP-P4K/R-E	4K EEPROM with Real Time Clock	\$45

#### Memory Upgrade and Real Time Clock Options for DI- Series T Version Meters

OP-P1MB/R-T	1MB EEPROM with Real Time Clock	\$95
OP-P1MB-T	1MB EEPROM	\$50
OP-P32K/R-T	32K EEPROM with Real Time Clock	\$65

#### Memory Upgrade and Real Time Clock Options for FI- Series E Version Meters

OP-F1MB/R-E	1MB EEPROM with Real Time Clock	\$95
OP-F1MB-E	1MB EEPROM	\$50
OP-F32K/R-E	32K EEPROM with Real Time Clock	\$65
OP-F32K-E	32K EEPROM	\$20
OP-F4K/R-E	4K EEPROM with Real Time Clock	\$45

#### Memory Upgrade and Real Time Clock Options for FI- Series T Version Meters

OP-F1MB/R-T	1MB EEPROM with Real Time Clock	\$95
OP-F1MB-T	1MB EEPROM	\$50



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Part Number	Description	US\$ List
<b>Memory Upgrade and Real Time Clock Options for GI- Series E Version Meters</b>		
OP-G1MB/R-E	.1MB EEPROM with Real Time Clock	\$95
OP-G1MB-E	.1MB EEPROM	\$50
OP-G32K/R-E	.32K EEPROM with Real Time Clock	\$65
OP-G32K-E	.32K EEPROM	\$20
OP-G4K/R-E	.4K EEPROM with Real Time Clock	\$45

<b>Memory Upgrade and Real Time Clock Options for GI- Series T Version Meters</b>		
OP-G1MB/R-T	.1MB EEPROM with Real Time Clock	\$95
OP-G1MB-T	.1MB EEPROM	\$50

**Range Change and Custom Scaling**  
Customer must specify the input signal range or digital span and the desired display range, or output signal range. Multiple inputs, outputs or multiple displays require a separate range change or custom scaling part number and a specified channel for each input, output or display.

**Range Change** and calibration to another header selectable standard range.  
CR-CHANGE . . . . .Range Change from Standard Range shown in **BOLD** type . . . \$7

**Display Custom Scaling** within any header selectable input range of module or a combination of module and the software scaling capability of the meter.  
CS-4.5/5/6 . . . . .Custom display scaling within standard ranges . . . . . \$18  
CS-BAR . . . . .Custom bargraph display scaling within std ranges . . . . . \$12

**Output Custom Scaling** within standard ranges of analog output.  
COA-4.5/5/6 . . . . .Custom scaling of analog output for digital meters & bargraphs . . \$18

**Custom Selectable Range Installation or Modification**  
CSR-SETUP . . . . .NRC to set-up custom selectable range . . . . . \$30  
CSR-INSTL . . . . .Factory installation - custom configuration, specify serial # CSR- . . \$10

**Custom Special Scaling Beyond the Standard Range**  
CSS-SETUP . . . . .NRC to set-up custom special scaling . . . . . \$30  
CSS-56/INSTL . . . . .Installation - for 4.5, 5.0 and 6.0 meters, specify serial # CSS- . . \$30  
CSS-BR/INSTL . . . . .Installation - for Bargraph, specify serial # CSS- . . . . . \$20

**Custom Output - Relays Installed in Non-Standard Locations**  
COR-SETUP . . . . .NRC to set-up Relays in non-standard locations . . . . . \$15  
COR-INSTL . . . . .Installation - Relays in non-standard locations , specify serial # COR- . \$10

**Custom Configuration** of programmable functions, codes, settings, linearization tables and macro programs.  
CCI-SETUP . . . . .NRC to set-up custom configuration file and issue serial # . . \$40  
CCI-INSTL . . . . .Factory installation - custom configuration, specify serial # CCI- . . \$10  
CLT-SETUP . . . . .NRC to set-up linearization tables (per 32 points) . . . . . \$40  
CLT-INSTL . . . . .Factory installation - linearization tables, specify serial # CLT- . . \$10  
CMP-SETUP . . . . .NRC to set-up ordering of a macro programming  
(does not include programming of macro code) . . . . . \$40  
CMP-INSTL . . . . .Factory installation - macro program, specify serial # CMP- . \$40

**Configuration Utility Software and Tiger 320 Macro-Language Compiler and development software.** CD and Manuals. (Free download and updates from web)  
OP-SW/IPRGR . . . . .Configuration Utility Software for Tiger 320 . . . . . \$10  
OP-SW/CMPLR . . . . .Macro-language Compiler and development software for Tiger 320 . \$15  
OP-SW/COMBO . . . . .Configuration Utility and Macro-language Compiler for Tiger 320 . . \$20

**ACCESSORIES**

**Cables/Serial Communications**



CN-PUSH/FI . . . . .Push-on Connector for FI Bargraphs Serial Output . . . . . \$28  
CN-L15 . . . . .Dual Row 15 Pin Edge Connector . . . . . \$3.75  
OM-CABLE232 . . . . .RS232: DB9 female to RJ6 phone plug adapter plus 6 ft RJ6 cable . . \$10  
OM-CABLE485 . . . . .RS485: DB9 female to RJ6 phone plug adapter plus 6 ft RJ6 cable . . \$10



**RS485 to RS232 Bi-directional Converter**  
CV-485/232 . . . . .RS485 to RS232 Converter w/ CN-DB9F/25M & CN-DB9M/25F . . \$75

**USB to RS232 Converter**  
CV-USB/232 . . . . .USB to DB9 RS232 Converter . . . . . \$60



**Ethernet Converters**  
CV-MOD/TB10 . . . . .Modbus / Ethernet to Serial Tbase 10 Converter . . . . . \$280

Part Number	Description	US\$ List
CV-RS/TB10	. . . . .Serial to Tbase 10 Converter . . . . .	\$280
CV-RS/TB100	. . . . .Serial to Tbase 10 / 100mg Converter . . . . .	\$335
OM-RS232ETH	. . . . .Ethernet Converter for RS232, includes OM-CABLE232 cable . . . . .	Call
OM-RS485ETH	. . . . .Ethernet Converter for RS485, includes OM-CABLE485 cable . . . . .	Call

**80-9F/25M-6 CN-DB/9 80-MOD/PLG**

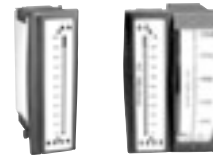
80-9F/25M-6	. . . . .6 ft Cable, DB9F to DB25M	\$8
CN-DB/9	. . . . .RJ6F to DB9F Converter	\$6
80-MOD/PLG	. . . . .6 ft Cable, 6 Pin to 6 Pin RJ6 Plug	\$4
CN-6P6C/T	. . . . .Dual 6 Pin RJ6 Adapter to Daisy Chain RS485	\$5
80-RJ/TERM	. . . . .6 Pin Terminator Plug for RS485	\$2
CN-DB9F/25M	. . . . .DB9F to DB25M Converter	\$6
CN-DB9M/25F	. . . . .DB9M to DB25F Converter	\$6

**External Power Supply**  
PS-2405 . . . . .24VDC Regulated Power Supply, 0.5A Output . . . . . \$25  
PS-520 . . . . .5VDC Regulated Power Supply, 2A Output . . . . . \$25

**Cases and Case Accessories**  
DN.CAS96X48B . . . . .96x48mm Complete Case with bezel . . . . . \$20  
DN.CAS144X36 . . . . .144x36mm Complete Case with bezel . . . . . \$20  
GN.CAS144X72 . . . . .144x72mm Complete Case with bezel . . . . . \$25  
75-DBBZ9648F . . . . .Black Bezel for 96x48mm Case . . . . . \$2  
75-DBZ144X36 . . . . .Black Bezel for 144x36mm Case . . . . . \$2  
75-GBBZ144X7 . . . . .Black Bezel for 144x72mm Case . . . . . \$2  
75-DMTCLIPF . . . . .Mounting Slide Clips, extra set (96x48mm case size) . . . . . \$2  
75-DMC14436B . . . . .Mounting Slide Clips-Wide opening (2 pc) 144x36mm case . . \$2  
75-DMC144X36 . . . . .Mounting Slide Clips-stand. (2 pc) extra set, 144x36mm case . . \$2

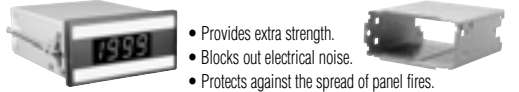
**Panel Adapter to fit 6" Edgewise**

**Mechanical Pointer Meters**  
see page 55 for details



OP-PA/144X36 . . . . .Panel Adapter for 144x36mm meter to fit 6" panel cutout . . . \$8

**Metal Surround Case**



OP-MTL96X48 . . . . .Metal Surround Case, includes screw mounting clips . . . . . \$16  
OP-MTL144X36 . . . . .Metal Surround Case, includes screw mounting clips . . . . . \$21  
OP-MTL144X72 . . . . .Metal Surround Case, includes screw mounting clips . . . . . \$25  
OP-MTLCLIP . . . . .Screw Mounting Clips (2 pc) to tighten slide brackets . . . . . \$6

**NEMA-4X Clear Lockable Water and Dust Proofing Cover**

- Stay-open snap latch for vertical mounting.
- Strong, impact-resistant polycarbonate with water tight capillary seal between window and frame.
- Plastic key lock can be removed and replaced with a standard industrial safety seal to prevent unauthorized openings.
- Shipped with O-ring for smooth panel to frame sealing and adhesive backed foam Neoprene gasket for textured panel to frame sealing.



OP-N4/144X36 . . . . .144x36mm clear lockable front cover-NEMA 4X, splash proof . . . \$25  
OP-N4X/96X48 . . . . .96x48mm clear lockable front cover-NEMA 4X, splash proof . . . \$20

**NEMA-4X Water and Dust Proof Membrane Touch-Pad Faceplate**



water tight and dust free seal to the meter.

76-D150EG-N4 . . . . .5 digit NEMA 4 "Touch" Green LED Faceplate, Factory install . . \$8  
76-D150ER-N4 . . . . .5 digit NEMA 4 "Touch" Red LED Faceplate, Factory install . . . \$8  
76-D153RRR-N4 . . . . .3 x 5 digit NEMA 4 "Touch" Red LED Faceplate, Fact. inst. . . . \$8  
76-D160EG-N4 . . . . .6 digit NEMA 4 "Touch" Green LED Faceplate, Factory install . . . \$8  
76-D160ER-N4 . . . . .6 digit NEMA 4 "Touch" Red LED Faceplate, Factory install . . . \$8  
76-D160X-N4 . . . . .6 digit NEMA 4, LCD Faceplate, Factory install . . . . . \$8  
76-D1B51G-N4 . . . . .5 digit NEMA 4 "Touch" Green LED Faceplate + Bar, Fact. inst. . . \$8  
76-D1B51R-N4 . . . . .5 digit NEMA 4 "Touch" Red LED Faceplate + Bar, Fact. install . . \$8



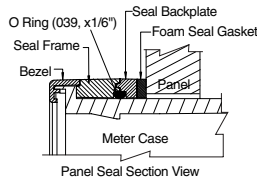
# Tiger 320 Series Ordering Info Continued

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**NEMA-4X Panel to Case Seal Adapters**

**The Panel Seal Kit consists of:**  
An Interlocking Seal Frame and Seal Backplate that hold an O-Ring in a water tight seal between the meter and the seal frames. An adhesive backed Foam Seal Gasket provides a seal between the Seal Backplate and the panel surface.



OP-PSA/96X48 . . . .Panel to Case Seal Adapter with O-Ring & Foam Gasket . . . .\$.7

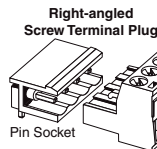
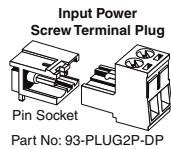
**High Strength Panel Mounting Adapter Kit**

Enables 96x48 cases to be mounted in a 87.4x40.8mm (3.45"x1.16") panel cutout for extra high vibration or impact resistance.



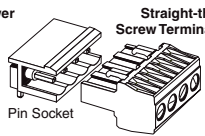
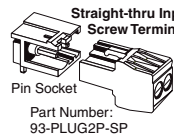
OP-PMA96X48 . . . .Panel Cutout Reinforcer with 2 Slide Mounting Brackets & Screw Mounting Clips . . . .\$.12

**Connectors**



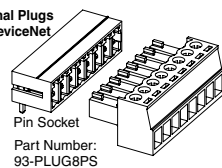
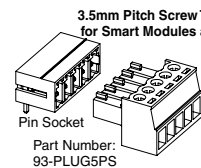
Part Numbers:  
93-PLUG2P-DR.....2 pins  
93-PLUG3P-DR.....3 pins  
93-PLUG4P-DR.....4 pins  
93-PLUG5P-DR.....5 pins  
93-PLUG6P-DR.....6 pins

- 93-PLUG2P-DP . . . .Extra Screw Terminal Conn., 2 Pin Power Plug . . . .\$.2
- 93-PLUG2P-DR . . . .Extra Screw Terminal Conn., 2 Pin Plug . . . .\$.2
- 93-PLUG3P-DR . . . .Extra Screw Terminal Conn., 3 Pin Plug . . . .\$.3
- 93-PLUG4P-DR . . . .Extra Screw Terminal Conn., 4 Pin Plug . . . .\$.4
- 93-PLUG5P-DR . . . .Extra Screw Terminal Conn., 5 Pin Plug . . . .\$.5
- 93-PLUG6P-DR . . . .Extra Screw Terminal Conn., 6 Pin Plug . . . .\$.6



Part Numbers:  
93-PLUG2P-DS.....2 pins  
93-PLUG3P-DS.....3 pins  
93-PLUG4P-DS.....4 pins

- 93-PLUG2P-DS . . . .Extra Screw Terminal Conn., straight-thru 2 Pin Plug . . . .\$.2
- 93-PLUG3P-DS . . . .Extra Screw Terminal Conn., straight-thru 3 Pin Plug . . . .\$.3
- 93-PLUG4P-DS . . . .Extra Screw Terminal Conn., straight-thru 4 Pin Plug . . . .\$.4



Part Numbers:  
93-PLUG2PS.....2 pins  
93-PLUG3PS.....3 pins  
93-PLUG5PS.....5 pins  
93-PLUG8PS.....8 pins

- 93-PLUG2PS . . . . .Extra Screw Terminal Conn., 2 Pin Plug, 3.5mm . . . .\$.2
- 93-PLUG3PS . . . . .Extra Screw Terminal Conn., 3 Pin Plug, 3.5mm . . . .\$.3
- 93-PLUG5PS . . . . .Extra Screw Terminal Conn., 5 Pin Plug, 3.5mm . . . .\$.5
- 93-PLUG8PS . . . . .Extra Screw Terminal Conn., 8 Pin Plug, 3.5mm . . . .\$.8



**OP-TERMBLK26**



**OM-IDC16/3**



**OP-DR/2RELAY**

**External DIN Rail Mounting Breakout Box**

- OP-DR/2RELAY . . . .Din Rail - 2 Relay Modules . . . .Call
- OP-DR/2LOGIC . . . .Din Rail - 2 Logic Modules . . . .Call
- OP-IDC16/3 . . . . .16 Pin IDC Cable - 3 Feet (using ISS7/8 Input Modules only) . . .\$.55
- OP-IDC26/3 . . . . .26 Pin IDC Cable - 3' (using OR81/82 Output Modules only) . .\$.65
- OP-RIB16/1 . . . . .16 Pin Ribbon Cable - 1' (using ISS7/8 Input Modules only) . .Call
- OP-RIB26/1 . . . . .26 Pin Ribbon Cable - 1' (using OR81/82 Output Modules only) . .Call
- OP-TERMBLK16 . . . .16 Pin Din Rail Terminal Block (using ISS7/8 IMs only) . .\$.65
- OP-TERMBLK26 . . . .26 Pin Din Rail Terminal Block (using OR81/82 OMs only) . .\$.85

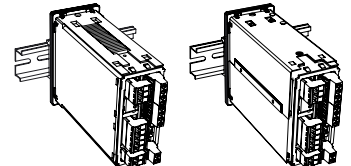
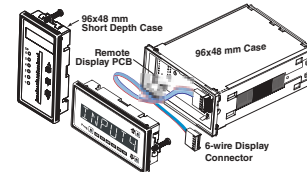
**Part Number Description US\$ List**

**Custom Faceplates**  
please see page 42



**Remote Displays**

**DIN Rail Mounting**



**Short Depth 96X48 Separated Display**

- OP-DI/RDISP . . . .Remote Display Connection for DI - w/Cable & Standard Display .\$.45
- OP-DI/RDND . . . .Remote Display Connection for DI - w/Cable & No Display (order code ND must be added to the order, see Display Options) . .\$.25

**96X48 DIN Rail Mounting with and without Separated Display**

- OP-DI/RD-DR . . . .Remote Display for DI - w/Cable & Din Rail Mount . . . .\$.55
- OP-DI/RDND-D . . . .Remote Display Connection for DI - w/Cable, Din Rail Mount & No Display (order code ND must be added to the order, see Display Options) . .\$.35



**648x144mm 4" Red LED,  
Driven by RS485 from any Tiger 320**

**Remote Display Seven Segment Monocolor LED**

- OP-W4/RD5R . . . .5 digit 4" Red LED, RS485 Driven Remote Display . . . .\$.750
- OP-W4/RD6R . . . .6 digit 4" Red LED, RS485 Driven Remote Display . . . .\$.840



**Driven by RS232  
from any Tiger 320**

**Remote Display 4" Alphanumeric Tricolor LED**

- OP-W4/RD16AT . . .16 Alpha. Characters, 4" LED, RS232 Driven Remote Display . .\$.975



**Driven by RS232  
from any Tiger 320**

**Remote Display 2" Alphanumeric Tricolor LED**

- OP-W2/RD16AT . . .16 Alpha. Characters, 2" LED, RS232 Driven Remote Disp. . .\$.592
- OP-W2/RD24AT . . .24 Alpha. Characters, 2" LED, RS232 Driven Remote Disp. . .\$.869

**Remote Display 1" Alphanumeric Tricolor LED**

- OP-W1/RD12AT . . .12 Alpha. Characters, 1" LED, RS232 Driven Remote Disp. . .\$.298
- OP-W1/RD16AT . . .16 Alpha. Characters, 1" LED, RS232 Driven Remote Disp. . .\$.442
- OP-W1/RD24AT . . .24 Alpha. Characters, 1" LED, RS232 Driven Remote Disp. . .\$.594



# Leopard Family Bargraphs

INTERNATIONAL	
DIN	
CASES	
1/32	1/8
1/32	1/8

## Smart, Programmable Bargraph Relays with Isolated 16 Bit 4-20 mA or 0-10 V Outputs

▼ **FL-B202Q**  
Red or Green Display

**NEW!**

▼ **FL-B101Q**  
Red or Green Display for Left, Right and Center Bar  
Tri-Color option for Center Bar only

▼ **FL-B101D40** Programmable Tri Color  
or Mono Color, Red or Green Display

Shown with Optional white face plate. Black is standard.

▼ **PL-B101D40**  
Red Display

3/32 DIN  
24x144 mm  
(0.95"x5.69")

▼ **BL-B51D40**  
Red Display

9/64 DIN 36x144 mm (1.42"x5.69")

**NEW!**

1/16 DIN  
24x96 mm  
(0.95"x3.78")

Horizontal Faceplate Option Available

▲ **FL-B202Q** horizontal face plate option  
Red or Green Display

**NEW!**

▲ **FL-B101D40PS** with horizontal face plate option  
Programmable Tri Color or Mono Color, Red or Green Display

### LEOPARD FAMILY FEATURES

- Smart 4 digit meters, tricolor and mono-color bargraphs
- Front-panel digital scaling, offset, and setpoints
- Bargraph can be independently scaled to a sensitivity of 100 counts full scale within any portion of the digital scale
- Over 38 different I-Series Input Signal Conditioners. For more info, please refer to the "I-Series Input Signal Conditioning Modules" catalog.
- 24 V DC excitation is available to power external 4-20 mA transmitters and 5 or 10 V DC excitation is available for resistance bridge type sensors
- Dual 10 & 5-amp relays, 4 relays total plus 16-bit analog output
- 1/16 DIN meters have one 10 Amp relay or two 5 Amp relays plus 16-bit analog output, or an extra 5 Amp relay
- Auto-sensing AC/DC, wide range power supplies, 85-265 V AC / 95-370 V DC or 18-36 V AC / 9-60 V DC
- Quick, easy mounting into any panel thickness
- Direct flush mount into mosaic panels
- Optional NEMA 4X membrane touch screen face plates
- Optional NEMA 4X, IP65 clear polycarbonate lens covers
- Optional metal surround case for DL and FL meters.
- Standard plug-in screw terminal connectors are provided

**NEW!**

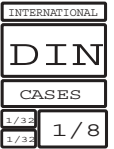
▲ **FL-B101D40H**

**NEW!**

▲ **FL-B101D40F**

**NEW!**








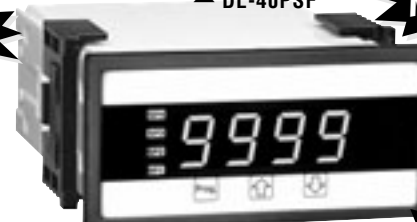






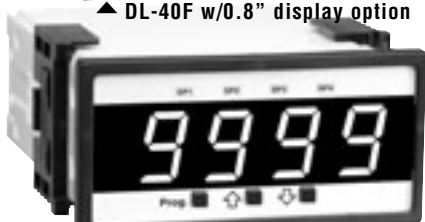
▲ **FL-B101D40R**



# Leopard Family Panel Meters

**Smart, Programmable Meter Relays with Isolated 16 Bit 4-20 mA or 0-10 V Outputs**  
 Membrane Touch-pad or Buttons Display Option

1/16 DIN 96x24 mm (3.78"x0.95")

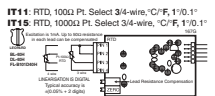
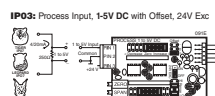
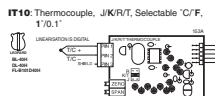
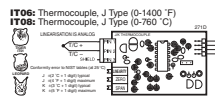
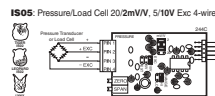
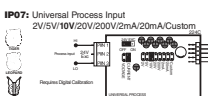
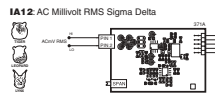
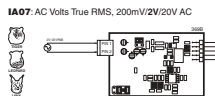
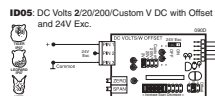
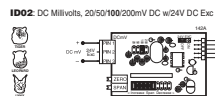
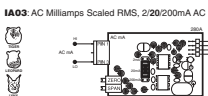
 ▲ BL-40 Accepts All Leopard Family compatible Modules	 ▲ DL-40	 ▲ DL-40 w/0.8" display option
 ▲ BL-40PSF Accepts All Leopard Family compatible Modules	 ▲ DL-40PSF	 ▲ DL-40PSF w/0.8" display option
 ▲ BL-40H Accepts Thermocouple & RTD Modules Only	 ▲ DL-40H	 ▲ DL-40H w/0.8" display option
 ▲ BL-40F Accepts Frequency Modules Only	 ▲ DL-40F	 ▲ DL-40F w/0.8" display option
 ▲ BL-40RPM Accepts RPM Modules Only	 ▲ DL-40RPM	 ▲ DL-40RPM w/0.8" display option

1/8 DIN 96x48 mm (3.78"x1.89")

## AVAILABLE INPUT SIGNAL OPTIONS

Texmate features more than 40 different Plug-In I-Series Input Signal Conditioners approved for the Leopard Family of products. These modules can be interchanged between any Texmate I-Series compatible meter, without recalibration or loss of accuracy.

- AC-Amps
- AC-Millivolt
- DC-Amps
- DC-Millivolt
- Process
- 3 wire Potentiometer
- Pressure
- AC-mA
- AC-Volts
- DC-Milliamp
- DC-Volts
- 4 to 20 mA
- Strain Gage
- RTD
- Thermocouple



**YOUR CUSTOM-DESIGNED MODULE**



# LEOPARD FAMILY MODULAR CONSTRUCTION

INTERNATIONAL
DIN
CASES
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## Relay Modules for DL Series

Relay Modules with 4 Independent 400V (210mA DC only) or (140mA AC/DC) SSRs

**DL Series**

Order Code	Options			
	SP4	SP3	SP2	SP1
ORS1, OR61	-	-	210mA 140mA	210mA 140mA
ORS2, OR62	-	-	210mA 140mA	210mA 140mA
ORS3, OR63	-	210mA 140mA	210mA 140mA	210mA 140mA
ORS4, OR64	210mA 140mA	210mA 140mA	210mA 140mA	210mA 140mA

Relay Modules with 4 Isolated 5A Form A Relays

**DL Series**

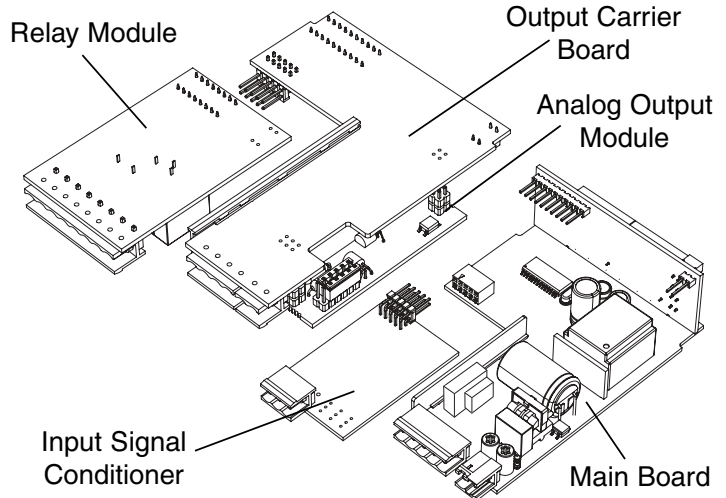
Order Code	Options			
	SP4	SP3	SP2	SP1
OR31	-	-	-	5A
OR32	-	-	5A	5A
OR33	-	5A	5A	5A
OR34	5A	5A	5A	5A

Relay Modules with 2 Non-Isolated 5A Form A Relays, and 2 Non-Isolated 10A Form C Relays

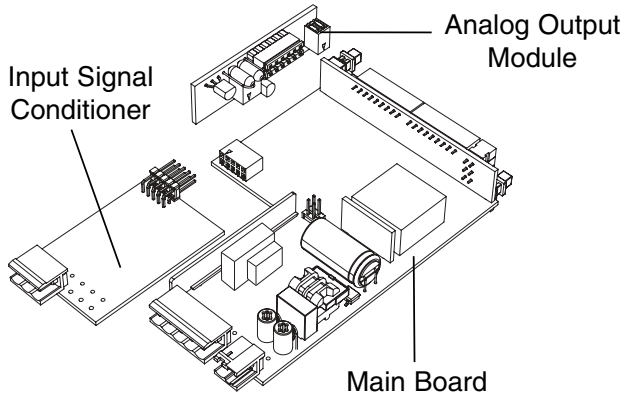
**DL Series**

Order Code	Options			
	SP2	SP4	SP1	SP3
OR11	-	-	10A	-
OR12	10A	-	10A	-
OR23	10A	5A	10A	-
OR14	10A	5A	10A	5A
OR15	-	5A	10A	5A
OR16	-	5A	10A	-

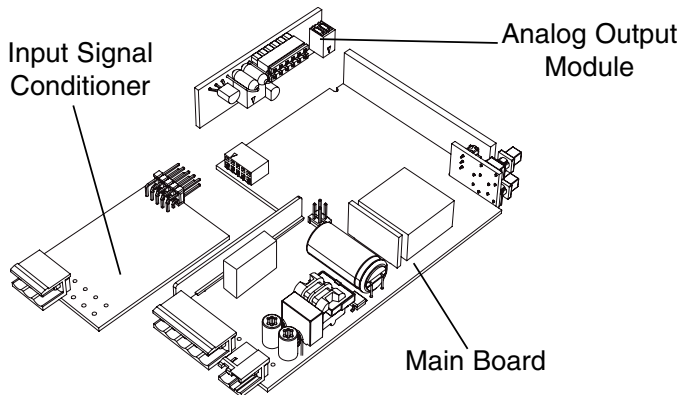
## DL Series



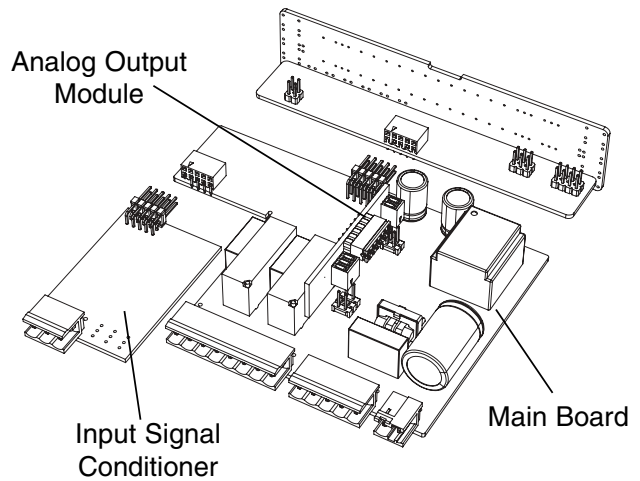
## BL Series



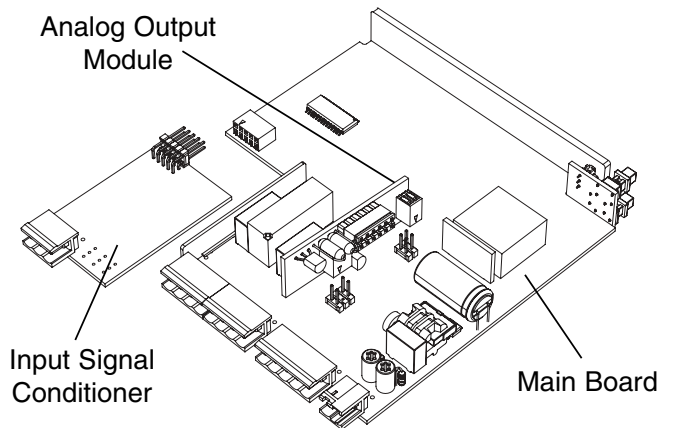
### BL-B51D40



## FL Series

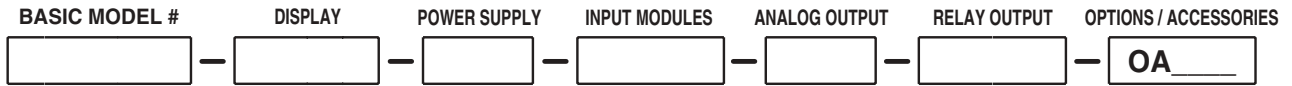


### PL-B101D40





# Leopard Family Ordering Info



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: DL-40-DR-PS1-IA01-AIC-R1-OA2 plus CR-CHANGE and a OP-N4X/96X48, \$110 + N/C + N/C + 35 + 35 + 30 + 7+ 20 = \$237**

Basic Model Number	Description	US\$ List	Order Code Suffix	Description	US\$ List
<b>► BASIC MODEL NUMBER</b>					
BL-40	. . . . .96x24mm, Leopard, 4 Digit	\$.110	DSGR	. . . . .Green LED Bar w/4 Digit Red LED, Vertical	\$.20
BL-40F	. . . . .96x24mm, Leopard, 4 Digit, Frequency	\$.110	DSGG	. . . . .Green LED Bar w/4 Digit Green LED, Vertical	\$.30
BL-40H	. . . . .96x24mm, Leopard, 4 Digit, Temperature	\$.110	DSTR	. . . . .Tri-Color Bar w/4 Digit Red LED, Vertical	\$.50
BL-40PSF	. . . . .96x24mm, Leopard, 4 Digit, Programmable Scale Factor	\$.110	DSTG	. . . . .Tri-Color Bar w/4 Digit Green LED, Vertical	\$.60
BL-40RPM	. . . . .96x24mm, Leopard, 4 Digit, RPM	\$.110			
DL-40	. . . . .96x48mm, Leopard, 4 Digit	\$.110			
DL-40F	. . . . .96x48mm, Leopard, 4 Digit, Frequency	\$.110			
DL-40H	. . . . .96x48mm, Leopard, 4 Digit, Temperature	\$.110			
DL-40PSF	. . . . .96x48mm, Leopard, 4 Digit, Programmable Scale Factor	\$.110			
DL-40RPM	. . . . .96x48mm, Leopard, 4 Digit, RPM	\$.110			
FL-B101D40	. . . . .144x36mm, 101 Segment Bargraph, 4 Digit, Version 2.0	\$.185			
FL-B101D40F	. . . . .144x36mm, 101 Segment Bargraph, 4 Digit, Frequency	\$.185			
FL-B101D40H	. . . . .144x36mm, 101 Segment Bargraph, 4 Digit, Temperature	\$.185			
FL-B101D40PS	. . . . .144x36mm, 101 Segment Bargraph, 4 Digit, PSF	\$.185			
FL-B101D40R	. . . . .144x36mm, 101 Segment Bargraph, 4 Digit, RPM	\$.185			
FL-B101Q	. . . . .144x36mm, Leopard, 101 Segment Bargraphs	\$.155			
FL-B202Q	. . . . .144x36mm, Leopard, Dual 101 Segment Bargraphs	\$.235			
BL-B51D40	. . . . .96x24mm, Leopard, 51 Segment Bargraph, 4 Digit	\$.175			
PL-B101D40	. . . . .144x24mm, Leopard, 101 Segment Bargraph, 4 Digit	\$.195			

**► Older Generation of Leopard Meters**

DI-40R . . . . .Replaced by DL-40PSF (see above)  
 FL-B101D40 . . . . .144x36mm, 101 Segment Bargraph, 4 Digit, Version 1.14\* . . . \$185  
 \*Part number CSL-1.14 (see Special Options, page 30) must be added to the order to designate Software Version 1.14.

**Standard Options for Models Listed Above**

Order Code Suffix	Description	List
<b>► DISPLAY</b>		
<b>For BL and DL Meters Only</b>		
DR	. . . . .Red LED, 0.56 inch high	\$.00
DG	. . . . .Green LED, 0.56 inch high	\$.10
DB	. . . . .Super-bright Red LED, 0.56 inch high	\$.25

<b>Large display options for DL Meters Only</b>		
LR	. . . . .Large Red LED, 0.8 inch high	\$.35
LG	. . . . .Large Green LED, 0.8 inch high	\$.45

<b>For FL-B101D40 Mono-color Bargraph Only</b>		
VRR	. . . . .Red LED Bar w/4 Digit Red LED, Vertical	\$.00
VRG	. . . . .Red LED Bar w/4 Digit Green LED, Vertical	\$.10
VGR	. . . . .Green LED Bar w/4 Digit Red LED, Vertical	\$.15
VGG	. . . . .Green LED Bar w/4 Digit Green LED, Vertical	\$.25
HRR	. . . . .Red LED Bar w/4 Digit Red LED, Horizontal	\$.05
HRG	. . . . .Red LED Bar w/4 Digit Green LED, Horizontal	\$.15
HGR	. . . . .Green LED Bar w/4 Digit Red LED, Horizontal	\$.20
HGG	. . . . .Green LED Bar w/4 Digit Green LED, Horizontal	\$.30

<b>For FL-B101D40 Dual Scale Display Bargraph Only</b>		
DSRR	. . . . .Red LED Bar w/4 Digit Red LED, Vertical	\$.05
DSRG	. . . . .Red LED Bar w/4 Digit Green LED, Vertical	\$.15

**For FL-B101D40 Tri-color Bargraph Only**

VTR	. . . . .Tri-Color Bar w/4 Digit Red LED, Vertical	\$.45
VTG	. . . . .Tri-Color Bar w/4 Digit Green LED, Vertical	\$.55
HTR	. . . . .Tri-Color Bar w/4 Digit Red LED, Horizontal	\$.50
HTG	. . . . .Tri-Color Bar w/4 Digit Green LED, Horizontal	\$.60

**For FL-B101Q Bargraph Only**

CVR	. . . . .Center Vertical - Red	\$.00
CVG	. . . . .Center Vertical - Green	\$.15
CVT	. . . . .Center Vertical - Tri-Color	\$.45
LVR	. . . . .Left Vertical - Red	\$.00
LVG	. . . . .Left Vertical - Green	\$.15
RVR	. . . . .Right Vertical - Red	\$.00
RVG	. . . . .Right Vertical - Green	\$.15
CHR	. . . . .Center Horizontal - Red	\$.05
CHG	. . . . .Center Horizontal - Green	\$.20
CHT	. . . . .Center Horizontal - Tri-Color	\$.50
THR	. . . . .Top Horizontal - Red	\$.05
THG	. . . . .Top Horizontal - Green	\$.20
BHR	. . . . .Bottom Horizontal - Red	\$.05
BHG	. . . . .Bottom Horizontal - Green	\$.20

**For FL-B202Q Dual Bargraph Only**

VRR	. . . . .Red LED Bar, Red LED Bar, Vertical	\$.00
VRG	. . . . .Red LED Bar, Green LED Bar, Vertical	\$.15
VGR	. . . . .Green LED Bar, Red LED Bar, Vertical	\$.15
VGG	. . . . .Green LED Bar, Green LED Bar, Vertical	\$.30
HRR	. . . . .Red LED Bar, Red LED Bar, Horizontal	\$.05
HRG	. . . . .Red LED Bar, Green LED Bar, Horizontal	\$.20
HGR	. . . . .Green LED Bar, Red LED Bar, Horizontal	\$.20
HGG	. . . . .Green LED Bar, Green LED Bar, Horizontal	\$.35

**For BL-B51D40 and PL-B101D40 Bargraphs Only**

VRR	. . . . .Red LED Bar w/4 Digit Red LED, Vertical	\$.00
-----	--	-------

<b>► POWER SUPPLY</b>		
PS1	. . . . .85-265VAC/95-370VDC	\$.00
PS2	. . . . .15-48VAC/10-72VDC	\$.35



# Leopard Family Ordering Info Continued

INTERNATIONAL
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**Order Code Suffix      Description      US\$ List**

► **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

**For all Meters and Bargraphs except BL-40H & DL-40H**

IA01	AC-Volts Scaled RMS, 200/ <b>600V</b> AC	\$.35
IA02	AC-Volts Scaled RMS, 200mV/ <b>2V/20V</b> AC	\$.35
IA03	AC-mA Scaled RMS, 2/ <b>20/200mA</b> AC	\$.40
IA04	AC-Amps Scaled RMS, <b>0-1 Amp AC (0-100.00)</b>	\$.40
IA05	AC-Amps Scaled RMS, <b>0-5 Amp AC (0-100.00)</b>	\$.40
IA06	AC-Volts True RMS, 200/ <b>600V</b> AC	\$.55
IA07	AC-Volts True RMS, 200mV/ <b>2V/20V</b> AC	\$.55
IA08	AC-mA True RMS, 2/ <b>20/200mA</b> AC	\$.55
IA09	AC-Amps True RMS, <b>0-1 Amp AC (0-100.00)</b>	\$.55
IA10	AC-Millivolt, Scaled RMS, <b>100mV AC</b>	\$.55
IA11	AC-Amps True RMS, <b>0-5 Amp AC (0-100.00)</b>	\$.55
IA12	AC-Millivolt, True RMS, <b>100mV AC</b>	\$.55
ID01	DC-Volts, 2/20/200V/Custom w/24V DC Exc	\$.25
ID02	DC-Millivolt, 20/50/100/200mV DC w/24V DC Exc	\$.35
ID03	DC-Milliamp, 2/20/200mA DC w/24V DC Exc	\$.25
ID04	DC-Amps, <b>5A DC</b>	\$.50
ID05	DC-Volts 2/20/200/Custom V DC w/Offset and 24V Exc.	\$.45
ID07	DC-Milliamp, 2/20/200mA DC w/Offset and 24V Exc	\$.35
ID09	DC-Amps, <b>1A DC</b>	\$.50
IF02	Line Frequency, 50-500VAC, 199.9Hz, or optional 400Hz	\$.45
IGYZ*	Universal Direct Pressure	\$.100

\*View the **IG- Ordering Code** on page 18 to determine the value for Y & Z (IGAA to IGKZ)

IP01	Process Loop, <b>4-20mA(0-100.00)</b>	\$.35
IP02	Process Loop, <b>4-20mA(0-100.00)</b> w/24VDC Exc	\$.45
IP03	Process Input, <b>1-5V DC(0-100.00)</b> w/Offset, 24V Exc	\$.45
IP07	Universal Process 2V/5V/ <b>10V/20V/200V/2mA/20mA/Custom</b>	\$.30
IPT1	Prototype Board for Custom Design	\$.15
IR02	3-Wire Potentiometer 1KΩ min (0-F.S.)	\$.40
IR03	Linear Potentiometer, 3-wire, 1KΩ min	\$.40
IR05	Resistance 2KΩ	\$.40
IS01	Strain Gage 5/10VDC Exc., 20/2mV/V, 4/6-wire	\$.55
IS02	Pressure 5/10VDC Exc., 20/2mV/V, 4/6-wire	\$.55
IS04	Pressure Ext Exc., 20/2mV/V, 4/6-wire	\$.45
IS05	Pressure/Load Cell 20/2mV/V, 5/10V Exc 4-wire	\$.55
IS06	Pressure/Load Cell Ext Exc., 20/2mV/V, 4-wire	\$.55
IS07	Pressure 20/2mV/V with High Impedance and External Excitation	\$.65
IT03	RTD, 100Ω Pt. 2/3/4-wire ( <b>-200 to 800°C</b> )	\$.40
IT04	RTD, 100Ω Pt. 2/3/4-wire ( <b>-200 to 1470°F</b> )	\$.40
IT05	RTD, 100Ω Pt. 2/3/4-wire ( <b>-190.0 to 199.0°F</b> )	\$.40
IT06	Thermocouple, J Type ( <b>0-1400 °F</b> )	\$.40
IT07	Thermocouple, K Type ( <b>0-1999°F</b> )	\$.40
IT08	Thermocouple, J Type ( <b>0-760 °C</b> )	\$.40
IT09	Thermocouple, K Type ( <b>0-1260°C</b> )	\$.40
IT14	RTD, 100Ω Pt. 2/3/4-wire ( <b>-199.0 to 199.0°C</b> )	\$.40

**For FL-B20Q Dual Bargraph Only**

IDP4	Dual Universal Process <b>2V/5V/10V/20V/200V/2mA/20mA/Custom</b>	\$.75
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**For BL-40H, DL-40H and FL-B101D40H meters Only**

IT10	Thermocouple, J/K/R/T, Selectable °C/°F, 1°/0.1°	\$.35
IT11	RTD, 100Ω Pt. Selectable 3/4-wire, °C/°F, 1°/0.1°, 385/392	\$.35
IT15	RTD, 1000Ω Pt. Selectable 3/4-wire, °C/°F, 1°/0.1°, 385/392	\$.35

**For BL-40F, DL-40F and FL-B101D40F meters Only**

IF05	Frequency 2mV/5V with Excitation	\$.45
IF08	Line Frequency	\$.45

**For BL-40RPM, DL-40RPM and FL-B101D40R meters Only**

IF05	Frequency 2mV/5V with Excitation	\$.45
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► **ANALOG OUTPUT**

**DL Series Only**

AIC	Isolated 16 Bit Current Output, 4-20mA	\$.35
AIV	Isolated 16 Bit Voltage Output, 0-10VDC	\$.35

**BL\*, FL and PL Series Only**

OIC	Isolated 16 Bit Current Output, 4-20mA	\$.35
OIV	Isolated 16 Bit Voltage Output, 0-10VDC	\$.35

\*Note: When either of the Analog Output options is installed in the BL-Series, only the R1, R2 & R11 Relay Output options can be co-installed. (See Below)

► **RELAY OUTPUT**

R1	Single 5A Form A Relay ( <b>all Leopard models</b> )	\$.30
R2	Dual 5A Form A Relays ( <b>all Leopard models</b> )	\$.55
R3	Three 5A Form A Relays; SP1 & SP2 common ( <b>BL models only</b> )**	\$.75

**Order Code Suffix      Description      US\$ List**

R11	Single 10A Form C Relay ( <b>BL, FL &amp; PL models only</b> )	\$.35
R12	Dual 10A Form C Relays ( <b>FL &amp; PL models only</b> )	\$.65
R13	Dual 10A Form C & One 5A Form A Relays ( <b>FL &amp; PL models only</b> )	\$.90
R14	Dual 10A Form C & Dual 5A Form A Relays ( <b>FL &amp; PL models only</b> )	\$.110
R15	Single 10A Form C & Dual 5A Form A Relays ( <b>FL &amp; PL models only</b> )	\$.80
R16	Single 10A Form C & Single 5A Form A Rlys ( <b>BL, FL &amp; PL models only</b> )**	\$.60

\*\*R3 & R16 cannot be co-installed with Analog Output options on BL-Series.

► **RELAY OUTPUT MODULES - (DL Models Only)**

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	\$.30
OR15	One 10 Amp Form C and Two 5 Amps Form A Relays	\$.75
OR16	One 10 Amp Form C and One 5 Amp Form A Relays	\$.55
OR12	Two 10 Amp Form C Relays, Isolated	\$.60
OR14	Two 10 Amp Form C and Two 5 Amps Form A Relays	\$.105
OR23	Two 10 Amp Form C and One 5 Amp Form A Relay, Isolated	\$.85
OR31	One 5 Amp Form A Relay, Isolated	\$.25
OR32	Two 5 Amp Form A Relays, Isolated	\$.50
OR33	Three 5 Amp Form A Relays, Isolated	\$.70
OR34	Four 5 Amp Form A Relays, Isolated	\$.90

**Solid State Relay (SSR) Output Modules DC Only**

OR51	One 400V DC Solid State Relay (SSR) 210mA	\$.25
OR52	Two 400V DC Solid State Relays (SSR) 210mA	\$.50
OR53	Three 400V DC Solid State Relays (SSR) 210mA	\$.70
OR54	Four 400V DC Solid State Relays (SSR) 210mA	\$.90

**Solid State Relay (SSR) Output Modules AC/DC**

OR61	One 400V AC/DC Solid State Relay (SSR) 140mA	\$.25
OR62	Two 400V AC/DC Solid State Relays (SSR) 140mA	\$.50
OR63	Three 400V AC/DC Solid State Relays (SSR) 140mA	\$.70
OR64	Four 400V AC/DC Solid State Relays (SSR) 140mA	\$.90

**Special Options and Accessories**

**Part Number      Description      US\$ List**

► **SPECIAL OPTIONS**

**Installation of Older Software Versions**

CSL-1.14	Installation of FL-B101D40 Software Version 1.14	\$.10
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**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 . . . . . \$7

**Range Change and Custom Scaling**

Customer must specify the input signal range or digital span and the desired display range, or output signal range. Multiple inputs or multiple displays require a separate range change or custom scaling part number and a specified channel for each input or display.

**Range Change** and calibration to another header selectable standard range

CR-CHANGE	Range Change from Standard Range shown in <b>BOLD</b> type	\$.7
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**Display - Custom Scaling** within any header selectable input range of module or a combination of module and the software scaling capability of the meter.

CS-3/3.5/4	Custom display scaling within standard ranges	\$.12
CS-BAR	Custom bargraph display scaling within std ranges	\$.12

**Output - Custom Scaling** within standard ranges of analog output.

COA-3/3.5/4	Custom scaling of analog output for digital meters & bargraphs	\$.12
COA-BAR	Custom scaling of analog output for Q-series bargraphs	\$.12

**Custom Configuration** - of programmable functions, setpoints, delay before make, delay before break, and color settings on tri color digital bargraphs.

CCL-SETUP	NRC to set-up Custom Configuration file and issue serial #	\$.40
CCL-INSTL	Installation of custom configuration, specify serial # CCL-	\$.10

**Custom Selectable Range Installation or Modification**

CSR-SETUP	NRC to set-up custom selectable range	\$.30
CSR-INSTL	Factory installation - custom configuration, specify serial # CSR-	\$.10

**Custom Special Scaling Beyond the Standard Range**

CSS-SETUP	NRC to set-up custom special scaling	\$.30
CSS-34/INSTL	Installation - for 3.5 and 4.0 meters, specify serial # CSS-	\$.20
CSS-BR/INSTL	Installation - for Bargraph, specify serial # CSS-	\$.20

**Custom Output - Relays Installed in Non-Standard Locations**

COR-SETUP	NRC to set-up Relays in non-standard locations	\$.15
COR-INSTL	Installation - Relays in non-standard locations, specify serial # COR-	\$.10



# Leopard Family Ordering Info Continued

INTERNATIONAL
DIN
CASES
1/32
1/32 1 / 8

**Part Number Description US\$ List**

► **ACCESSORIES**

**External Power Supply**

- PS-2405 . . . . .24VDC Regulated Power Supply, 0.5A Output . . . . . \$25
- PS-520 . . . . .5VDC Regulated Power Supply, 2A Output . . . . . \$25

**Case Accessories**

- DN.CAS96X24L . . . . .96x24mm Complete Case with bezel . . . . . \$18
- DN.CAS96X48B . . . . .96x48mm Complete Case with bezel . . . . . \$20
- GN.CAS144X24 . . . . .144x24mm Complete Case with bezel . . . . . \$20
- DN.CAS144X36 . . . . .144x36mm Complete Case with bezel . . . . . \$20
- 75-DBBZ96X24 . . . . .Black Bezel for 96x24mm Case . . . . . \$2
- 75-DBBZ9648F . . . . .Black Bezel for 96x48mm Case . . . . . \$2
- 75-GBBZ144X2 . . . . .Black Bezel for 144x24mm Case . . . . . \$2
- 75-DBZ144X36 . . . . .Black Bezel for 144x36mm Case . . . . . \$2
- 75-DMC14436B . . . . .Mounting Slide Clips-Wide (2 pc) (144X36mm case size) . . . . . \$2
- 75-DMC144X36 . . . . .Mounting Slide Clips-stand. (2 pc) extra set (144X36 case size) . . . . . \$2
- 75-DMTCLIPF . . . . .Mounting Slide Clips, extra set (96x48mm case size) . . . . . \$2
- 75-DMTC96X24 . . . . .Mounting Slide Clips, extra set (96x24mm case size) . . . . . \$2

**Panel Adapter to fit 6" Edgewise Mechanical Pointer Meters**

see page 55 for details



- OP-PA/144X36 . . . . .Panel Adapter for 144x36mm meter to fit 6" panel cutout . . . . . \$8

**Metal Surround Case**

- Provides extra strength.
- Blocks out electrical noise.
- Protects against the spread of panel fires.



- OP-MTL96X48 . . . . .Metal Surround Case, includes screw mounting clips . . . . . \$16
- OP-MTL144X36 . . . . .Metal Surround Case, includes screw mounting clips . . . . . \$21
- OP-MTLCLIP . . . . .Screw Mounting Clips (2 pc) to screw tighten slide brackets . . . . . \$6
- 75-DTP96X24 . . . . .Black Metal Trim Plate (96x24mm Case) 1 Meter . . . . . \$6
- 75-DTP2X9624 . . . . .Black Metal Trim Plate (96x24mm Case) 2 Meters . . . . . \$6
- 75-DTP3X9624 . . . . .Black Metal Trim Plate (96x24mm Case) 3 Meters . . . . . \$6

**NEMA-4X Clear Lockable Water and Dust Proof Cover**

- OP-N4/144X36 . . . . .144x36mm clear lockable front cover-NEMA 4X, splash proof . . . . . \$25
- OP-N4X/96X48 . . . . .96x48mm clear lockable front cover-NEMA 4X, splash proof . . . . . \$20



- Stay-open snap latch for vertical mounting.
- Strong, impact-resistant polycarbonate with water tight capillary seal between window and frame.
- Plastic key lock can be removed and replaced with a standard industrial safety seal to prevent unauthorized openings.
- Shipped with O-ring for smooth panel to frame sealing and adhesive backed foam Neoprene gasket for textured panel to frame sealing.

**NEMA-4X Water and Dust Proof Membrane Touch-pad Faceplate**



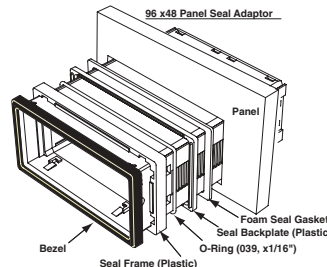
water tight and dust free seal to the meter.

- 76-DL40G-N4 . . . . .NEMA 4, "Touch" Green LED Faceplate, Factory install . . . . . \$8
- 76-DL40LG-N4 . . . . .NEMA 4, "Touch" Large Green LED Faceplate, Factory install . . . . . \$8

**Part Number Description US\$ List**

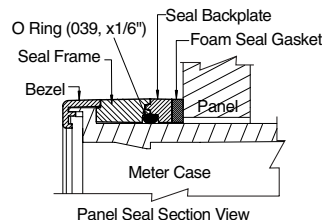
- 76-DL40LR-N4 . . . . .NEMA 4, "Touch" Large Red LED Faceplate, Factory install . . . . . \$8
- 76-DL40R-N4 . . . . .NEMA 4, "Touch" Red LED Faceplate, Factory install . . . . . \$8

**NEMA-4X Panel to Case Seal Adapters**



**The Panel Seal Kit consists of:**

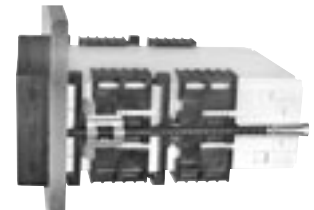
An Interlocking Seal Frame and Seal Backplate that hold an O-Ring in a water tight seal between the meter and the seal frames. An adhesive backed Foam Seal Gasket provides a seal between the Seal Backplate and the panel surface.



- OP-PSA/96X48 . . . . .Panel to Case Seal Adapter with O-Ring & Foam Gasket . . . . . \$7

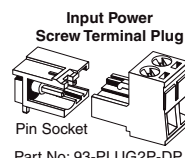
**High Strength Panel Mounting Adapter Kit**

Enables 96x48 cases to be mounted in a 87.4x40.8mm (3.45"x1.16") panel cutout for extra high vibration or impact resistance. Multiple sets of adapters can be installed to extend the bezel outward from the panel, which also reduces the depth behind the panel.

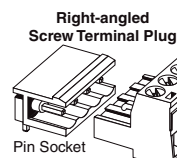


- OP-PMA96X48 . . . . .Panel Cutout Reinforcer with 2 Slide Mounting Brackets & Screw Mounting Clips . . . . . \$12

**Connectors**

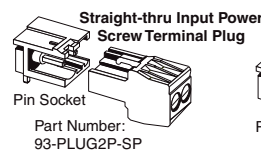


Pin Socket  
Part No: 93-PLUG2P-DP

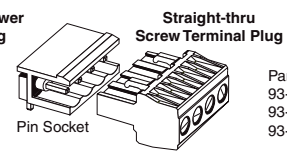


Pin Socket

- Part Numbers:  
93-PLUG2P-DR.....2 pins  
93-PLUG3P-DR.....3 pins  
93-PLUG4P-DR.....4 pins  
93-PLUG5P-DR.....5 pins  
93-PLUG6P-DR.....6 pins



Pin Socket  
Part Number: 93-PLUG2P-SP



Pin Socket

- Part Numbers:  
93-PLUG2P-DS....2 pins  
93-PLUG3P-DS....3 pins  
93-PLUG4P-DS....4 pins

- 93-PLUG2P-DP . . . . .Extra Screw Terminal Conn., 2 Pin Power Plug . . . . . \$2
- 93-PLUG2P-DR . . . . .Extra Screw Terminal Conn., 2 Pin Plug . . . . . \$2
- 93-PLUG3P-DR . . . . .Extra Screw Terminal Conn., 3 Pin Plug . . . . . \$3
- 93-PLUG4P-DR . . . . .Extra Screw Terminal Conn., 4 Pin Plug . . . . . \$4
- 93-PLUG5P-DR . . . . .Extra Screw Terminal Conn., 5 Pin Plug . . . . . \$5
- 93-PLUG6P-DR . . . . .Extra Screw Terminal Conn., 6 Pin Plug . . . . . \$6
- 93-PLUG2P-DS . . . . .Extra Screw Terminal Conn., straight-thru 2 Pin Plug . . . . . \$2
- 93-PLUG3P-DS . . . . .Extra Screw Terminal Conn., straight-thru 3 Pin Plug . . . . . \$3
- 93-PLUG4P-DS . . . . .Extra Screw Terminal Conn., straight-thru 4 Pin Plug . . . . . \$4

**Custom Faceplates** please see page 42





# Lynx Family Panel Meters & Bargraphs

INTERNATIONAL
DIN
CASES
3/32 1/8
1/32 1/8

**Configured for Direct Connection to Most Sensors and Process Signals, with Displays Scalable to Any Unit of Measure**

Red or Green Display  
Optional 16 bit Isolated  
4-20mA, 0-10V Output.

▼ **FX-B101Q**



9/64 DIN  
36x144 mm (1.42"x5.69")



Red or Green Display  
Optional Dual Setpoints  
and Relays Output

▼ **BX-B31**



▲ **BX-B31 with Relays Output**



▼ **BX-B31 with Horizontal Display**



▼ **BX-B31 with Relays, Horizontal Display**



▲ **FX-B101Q with Horizontal Display**

Optional 16 bit Isolated  
4-20mA, 0-10V Output.  
Red or Green Display



▼ 1/16 DIN 96x24 mm (3.78"x0.95")



▲ **BX-45**



▲ **BX-35**

Optional NEMA-4X Water and Dust  
Proof Faceplate available



▲ **DX-35**



▲ **DX-35 with 0.8" display option**



▲ **DX-45**

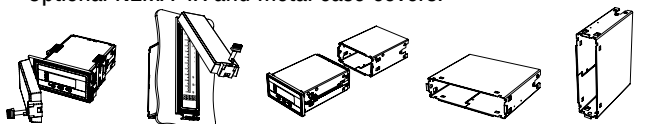


▲ **DX-40 0.8" display standard**

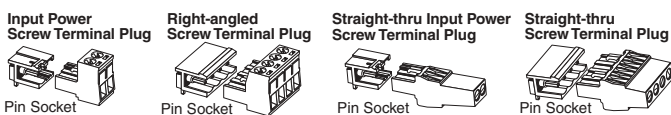
▲ 1/8 DIN 96x48 mm (3.78"x1.89")

## LYNX FAMILY FEATURES

- Basic indicator 3.5 or 4.5 digit, 0.56" and 0.8" LED meters
- 101 segment, green or red bargraphs
- Analog scaling and offset depends on input module
- Over 35 different I-Series Input Signal Conditioners. For more info, please refer to the "I-Series Input Signal Conditioning Modules" catalog.
- Model FX-B101Q is a 101 segment LED bargraph with quickset push-button scaling and a 4 to 20mA or 0-10VDC output option
- Auto-sensing AC/DC, wide range power supplies, 85-265 V AC / 95-370 V DC or 18-36 V AC / 9-60 V DC
- Quick, easy mounting into any panel thickness
- Direct flush mount into mosaic panels
- Optional NEMA 4X and metal case covers.



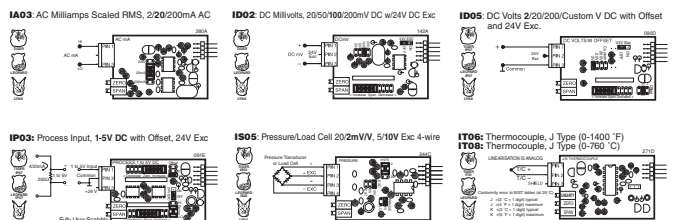
• Standard plug-in screw terminal connectors are provided.



## AVAILABLE INPUT SIGNAL OPTIONS

Texmate features more than 30 different Plug-In I-Series Input Signal Conditioners approved for the Lynx Family of products. These modules can be interchanged between any Texmate I-Series compatible meter, without recalibration or loss of accuracy.

- |                |                |                        |
|----------------|----------------|------------------------|
| • AC-Amps      | • DC-Milliamp  | • 3 wire Potentiometer |
| • AC-mA        | • DC-Millivolt | • Pressure             |
| • AC-Millivolt | • DC-Volts     | • RTD                  |
| • AC-Volts     | • Process      | • Thermocouple         |
| • DC-Amps      | • 4 to 20 mA   | • Custom Input         |

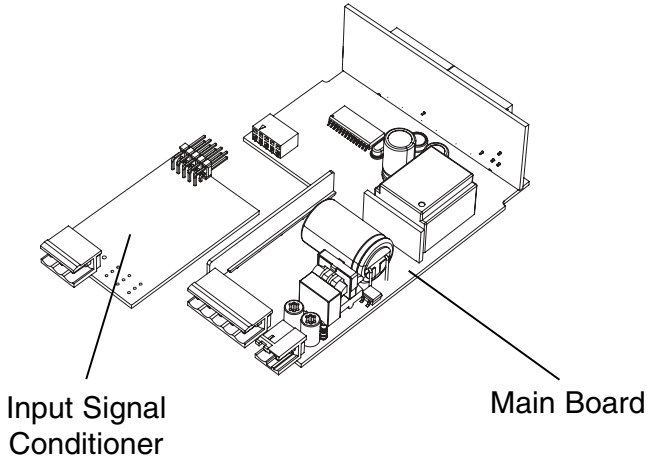




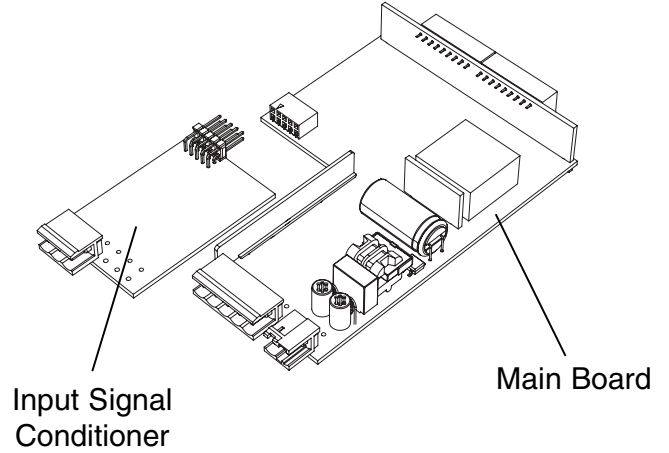
# Lynx Family Modular Construction

INTERNATIONAL	
DIN	
CASES	
1/32	1/8
1/32	

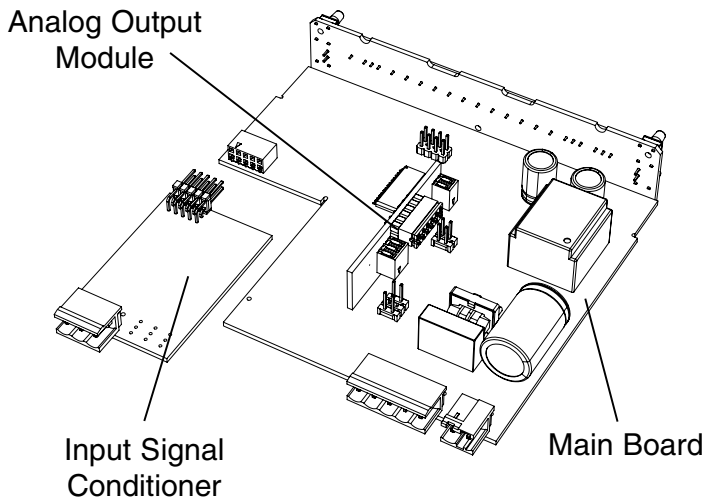
**DX Series**



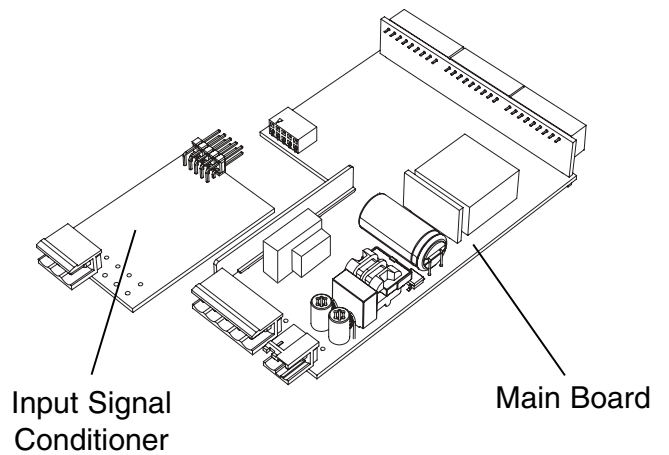
**BX Series**



**FX-B101Q**



**BX-B31**





# Lynx Family Ordering Info



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

\_\_\_\_\_ — \_\_\_\_\_ — \_\_\_\_\_ — \_\_\_\_\_ — \_\_\_\_\_ — \_\_\_\_\_ — **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: DX-35-DR-PS1-IA01-OA2 plus CR-CHANGE and a OP-N4X/96X48, \$80+ N/C + N/C + 35 + 7+ 20 = \$142**

Basic Model Number	Description	US\$ List
<b>► BASIC MODEL NUMBER</b>		
<b>BX-35</b> . . . . .	.96x24mm, Lynx, 3.5 Digit	\$.85
<b>BX-45</b> . . . . .	.96x24mm, Lynx, 4.5 Digit	\$.110
<b>BX-B31</b> . . . . .	.96x24mm, Lynx, 31 Segment Bargraph	\$.125
<b>DX-35</b> . . . . .	.96x48mm, Lynx, 3.5 Digit	\$.80
<b>DX-40</b> . . . . .	.96x48mm, Lynx, Large 4 Digit	\$.110
<b>DX-45</b> . . . . .	.96x48mm, Lynx, 4.5 Digit	\$.105
<b>FX-B101Q</b> . . . . .	.144x36mm, Lynx, 101 Segment Bargraph	\$.145

**Standard Options for Models Listed Above**

Order Code Suffix	Description	List
-------------------	-------------	------

**► DISPLAY**

For BX and DX Series, except DX-40

<b>DR</b> . . . . .	Red LED, 0.56 inch high	\$.00
<b>DG</b> . . . . .	Green LED, 0.56 inch high	\$.10
<b>DB</b> . . . . .	Super-bright Red LED, 0.56 inch high	\$.25



For DX-35 and DX-40 Only

<b>LR</b> . . . . .	Large Red LED, 0.8 inch high	\$.25
<b>LG</b> . . . . .	Large Green LED, 0.8 inch high	\$.35



For BX Series Bargraphs Only

<b>VR</b> . . . . .	.31 Segment Red LED Bar, Vertical	\$.00
<b>VG</b> . . . . .	.31 Segment Green LED Bar, Vertical	\$.10
<b>HR</b> . . . . .	.31 Segment Red LED Bar, Horizontal	\$.05
<b>HG</b> . . . . .	.31 Segment Green LED Bar, Horizontal	\$.15



For FX Series Bargraphs Only

<b>VR</b> . . . . .	.101 Segment Red LED Bar, Vertical	\$.00
<b>VG</b> . . . . .	.101 Segment Green LED Bar, Vertical	\$.15
<b>HR</b> . . . . .	.101 Segment Red LED Bar, Horizontal	\$.05
<b>HG</b> . . . . .	.101 Segment Green LED Bar, Horizontal	\$.20



**► POWER SUPPLY**

<b>PS1</b> . . . . .	.85-265VAC/95-370VDC	\$.00
<b>PS2</b> . . . . .	.15-48VAC/10-72VDC	\$.35

**► 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

<b>IA01</b> . . . . .	.AC-Volts Scaled RMS, 200/ <b>600V AC</b>	\$.35
<b>IA02</b> . . . . .	.AC-Volts Scaled RMS, 200mV/ <b>2V/20V AC</b>	\$.35
<b>IA03</b> . . . . .	.AC-mA Scaled RMS, 2/ <b>20/200mA AC</b>	\$.40
<b>IA04</b> . . . . .	.AC-Amps Scaled RMS, <b>0-1 Amp AC (0-100.00)</b>	\$.40
<b>IA05</b> . . . . .	.AC-Amps Scaled RMS, <b>0-5 Amp AC (0-100.00)</b>	\$.40
<b>IA06</b> . . . . .	.AC-Volts True RMS, 200/ <b>600V AC</b>	\$.55
<b>IA07</b> . . . . .	.AC-Volts True RMS, 200mV/ <b>2V/20V AC</b>	\$.55
<b>IA08</b> . . . . .	.AC-mA True RMS, 2/ <b>20/200mA AC</b>	\$.55
<b>IA09</b> . . . . .	.AC-Amps True RMS, <b>0-1 Amp AC (0-100.00)</b>	\$.55
<b>IA10</b> . . . . .	.AC-Millivolt, Scaled RMS, <b>100mV AC</b>	\$.55
<b>IA11</b> . . . . .	.AC-Amps True RMS, <b>0-5 Amp AC (0-100.00)</b>	\$.55
<b>IA12</b> . . . . .	.AC-Millivolt, True RMS, <b>100mV AC</b>	\$.55
<b>ID01</b> . . . . .	.DC-Volts, 2/ <b>20/200V/Custom</b> w/24V DC Exc	\$.25
<b>ID02</b> . . . . .	.DC-Millivolt, 20/50/ <b>100/200mV DC</b> w/24V DC Exc	\$.35
<b>ID03</b> . . . . .	.DC-Milliamp, 2/ <b>20/200mA DC</b> w/24V DC Exc	\$.25

Order Code Suffix	Description	US\$ List
<b>ID04</b> . . . . .	.DC-Amps, <b>5A DC</b>	\$.50
<b>ID05</b> . . . . .	.DC-Volts 2/ <b>20/200/Custom V DC</b> w/Offset and 24V Exc	\$.45
<b>ID07</b> . . . . .	.DC-Milliamp, 2/ <b>20/200mA DC</b> w/Offset and 24V Exc	\$.35
<b>ID09</b> . . . . .	.DC-Amps, <b>1A DC</b>	\$.50
<b>IF02</b> . . . . .	.Line Frequency, 50-500VAC, 199.9Hz, or optional 400Hz	\$.45
<b>IGY*</b> . . . . .	Universal Direct Pressure	\$.100
<b>*View the IG- Ordering Code on page 18 to determine the value for Y &amp; Z (IGAA to IGKZ)</b>		
<b>IP01</b> . . . . .	.Process Loop, <b>4-20mA(0-100.00)</b>	\$.35
<b>IP02</b> . . . . .	.Process Loop, <b>4-20mA(0-100.00)</b> w/24VDC Exc	\$.45
<b>IP03</b> . . . . .	.Process Input, <b>1-5V DC(0-100.00)</b> w/Offset, 24V Exc	\$.45
<b>IP07*</b> . . . . .	Universal Process 2V/5V/10V/20V/200V/2mA/20mA/Custom	\$.30
<b>*IP07 works only with FX Series, as it requires digital scaling.</b>		
<b>IPT1</b> . . . . .	.Prototype Board for Custom Design	\$.15
<b>IR02</b> . . . . .	.3 wire Potentiometer <b>1KΩ min (0-100.00)</b>	\$.40
<b>IR03</b> . . . . .	.Linear Potentiometer, 3-wire, 1KΩ min	\$.40
<b>IR04</b> . . . . .	.Resistance 2KΩ	\$.40
<b>IS05</b> . . . . .	.Pressure 20/ <b>2mV/V</b> , 5V/ <b>10V Exc</b> 4-wire	\$.55
<b>IS06</b> . . . . .	.Pressure Ext Exc., 20/ <b>2mV/V</b> , 4-wire	\$.55
<b>IT03</b> . . . . .	.RTD, 100Ω Pt. 2/ <b>3/4-wire</b> (-200 to 800°C)	\$.40
<b>IT04</b> . . . . .	.RTD, 100Ω Pt. 2/ <b>3/4-wire</b> (-200 to 1470°F)	\$.40
<b>IT05</b> . . . . .	.RTD, 100Ω Pt. 2/ <b>3/4-wire</b> (-190.0 to 199.0°F)	\$.40
<b>IT06</b> . . . . .	.Thermocouple, J Type (0-1400 °F)	\$.40
<b>IT07</b> . . . . .	.Thermocouple, K Type (0-1999°F)	\$.40
<b>IT08</b> . . . . .	.Thermocouple, J Type (0-760 °C)	\$.40
<b>IT09</b> . . . . .	.Thermocouple, K Type (0-1260°C)	\$.40
<b>IT14</b> . . . . .	.RTD, 100Ω Pt. 2-, 3-, or 4-wire (-199.0 to 199.0°C)	\$.40

**► ANALOG OUTPUT for FX-B101Q Only**

<b>O1C</b> . . . . .	.Isolated 16 Bit Current Output, 4-20mA	\$.35
<b>O1V</b> . . . . .	.Isolated 16 Bit Voltage Output, 0-10VDC	\$.35

**► RELAY OUTPUT for BX-B31 Only**

<b>R1</b> . . . . .	.Single 5A Form A Relay	\$.30
<b>R2</b> . . . . .	.Dual 5A Form A Relays	\$.55
<b>R11</b> . . . . .	.Single 10A Form C Relay	\$.35
<b>R16</b> . . . . .	.Single 10A Form C & Single 5A Form A Relays	\$.60

**Special Options and Accessories**

Part Number	Description	US\$ List
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**► SPECIAL OPTIONS**

**Range Change and Custom Scaling**

Customer must specify the input signal range or digital span and the desired display range, or output signal range.

**Range Change** and calibration to another header selectable standard range  
**CR-CHANGE** . . . . . Range Change from Standard Range shown in **BOLD** type . . . \$7

**Display Custom Scaling** within any header selectable input range of module or a combination of module and the software scaling capability of the meter.

<b>CS-3/3.5/4</b> . . . . .	.Custom display scaling within std. ranges, 3/3.5/4.0 digit meters	\$.12
<b>CS-4.5/5/6</b> . . . . .	.Custom display scaling within std. ranges, 4.5/5/6 digit meters	\$.18
<b>CS-BAR</b> . . . . .	.Custom bargraph display scaling within std ranges	\$.12
<b>OP-DXEXTDP</b> . . . . .	.External Decimal Point Option	\$.20

**Output Custom Scaling** within standard ranges of analog output.

<b>COA-BAR</b> . . . . .	.Custom scaling of analog output for Q-series bargraphs	\$.12
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**Custom Selectable Range Installation or Modification**

<b>CSR-SETUP</b> . . . . .	.NRC to set-up custom selectable range	\$.30
<b>CSR-INSTL</b> . . . . .	.Factory installation - custom configuration, specify serial # CSR-	\$.10

**Custom Special Scaling Beyond the Standard Range**

<b>CSS-SETUP</b> . . . . .	.NRC to set-up custom special scaling	\$.30
<b>CSS-34/INSTL</b> . . . . .	.Installation - for 3.5 and 4.0 meters, specify serial # CSS-	\$.20
<b>CSS-56/INSTL</b> . . . . .	.Installation - for 4.5, 5.0 and 6.0 meters, specify serial # CSS-	\$.30
<b>CSS-BR/INSTL</b> . . . . .	.Installation - for Bargraph, specify serial # CSS-	\$.20
<b>OP-DXEXTDP</b> . . . . .	.External Decimal Pt. with Conn. Option - Factory Installed	\$.20



# Lynx Family Ordering Info Continued

**Part Number Description US\$ List**

**▶ ACCESSORIES**

**External Power Supply**

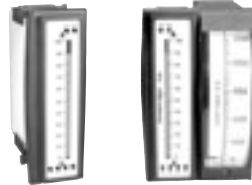
PS-2405	24VDC Regulated Power Supply, 0.5A Output	\$.25
PS-520	5VDC Regulated Power Supply, 2A Output	\$.25

**Case Accessories**

DN.CAS96X24L	96x24mm Complete Case with bezel	\$.18
DN.CAS96X48B	96x48mm Complete Case with bezel	\$.20
DN.CAS144X36	144x36mm Complete Case with bezel	\$.20
75-DBBZ96X24	Black Bezel for 96x24mm Case	\$.2
75-DBBZ96X48F	Black Bezel for 96x48mm Case	\$.2
75-DBZ144X36	Black Bezel for 144x36mm Case	\$.2
75-DMC144X36B	Mounting Slide Clips-Wide (2 pc) (144X36mm case size)	\$.2
75-DMC144X36	Mounting Slide Clips-stand. (2 pc) extra set (144X36 case size)	\$.2
75-DMTCLIPF	Mounting Slide Clips, extra set (96x48mm case size)	\$.2
75-DMTC96X24	Mounting Slide Clips, extra set (96x24mm case size)	\$.2

**Panel Adapter to fit 6" Edgewise Mechanical Pointer Meters**

see page 55 for details



OP-PA/144X36	Panel Adapter for 36x144mm meter to fit 6" panel cutout	\$.8
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**Metal Surround Case**

- Provides extra strength.
- Blocks out electrical noise.
- Protects against the spread of panel fires.



OP-MTL96X48	Metal Surround Case, includes screw mounting clips	\$.16
OP-MTL144X36	Metal Surround Case, includes screw mounting clips	\$.21
OP-MTLCLIP	Screw Mounting Clips (2 pc) to screw tighten slide brackets	\$.6
75-DTP96X24	Black Metal Trim Plate (96x24mm Case) 1 Meter	\$.6
75-DTP2X96X24	Black Metal Trim Plate (96x24mm Case) 2 Meters	\$.6
75-DTP3X96X24	Black Metal Trim Plate (96x24mm Case) 3 Meters	\$.6

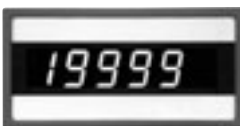
**NEMA-4X Clear Lockable Water and Dust Proof Cover**

OP-N4/144X36	144x36mm clr lockable front cover-NEMA 4X, splash proof	\$.25
OP-N4X/96X48	96x48mm clr lockable front cover-NEMA 4X, splash proof	\$.20



- Stay-open snap latch for vertical mounting.
- Strong, impact-resistant polycarbonate with water tight capillary seal between window and frame.
- Plastic key lock can be removed and replaced with a standard industrial safety seal to prevent unauthorized openings.
- Shipped with O-ring for smooth panel to frame sealing & adhesive backed foam Neoprene gasket for textured panel to frame sealing.

**NEMA-4X Water and Dust Proof Membrane Touch-pad Faceplate**



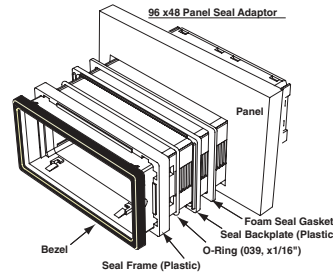
water tight and dust free seal to the meter.

76-D35G-N4	3.5 digit NEMA 4 Green LED Faceplate, Factory Installed	\$.8
76-D35R-N4	3.5 digit NEMA 4 Red LED Faceplate, Factory Installed	\$.8
76-D35LG-N4	3.5 digit NEMA 4 Large Green LED Faceplate, Factory Installed	\$.8
76-D35LR-N4	3.5 digit NEMA 4 Large Red LED Faceplate, Factory Installed	\$.8

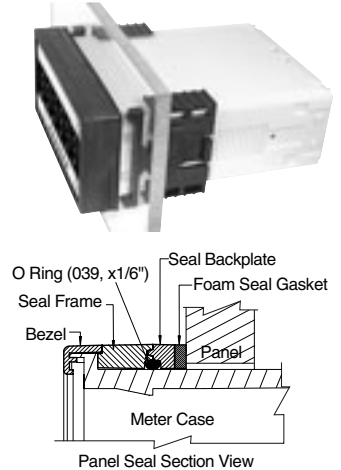
**Part Number Description US\$ List**

76-D45G-N4	4.5 digit NEMA 4 Green LED Faceplate, Factory Installed	\$.8
76-D45R-N4	4.5 digit NEMA 4 Red LED Faceplate, Factory Installed	\$.8

**NEMA-4X Panel to Case Seal Adapters**



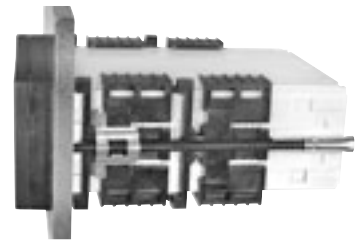
**The Panel Seal Kit consists of:**  
An Interlocking Seal Frame and Seal Backplate that hold an O-Ring in a water tight seal between the meter and the seal frames. An adhesive backed Foam Seal Gasket provides a seal between the Seal Backplate and the panel surface.



OP-PSA/96X48	Panel to Case Seal Adapter with O-Ring & Foam Gasket	\$.7
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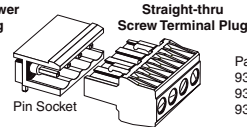
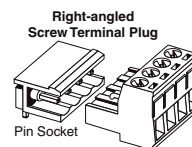
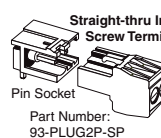
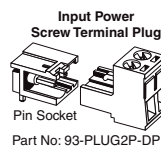
**High Strength Panel Mounting Adapter Kit**

Enables 96x48 cases to be mounted in a 87.4x40.8mm (3.45"x1.16") panel cutout for extra high vibration or impact resistance. Multiple sets of adapters can be installed to extend the bezel outward from the panel, which also reduces the depth behind the panel.



OP-PMA96X48	Panel Cutout Reinforcer with 2 Slide Mounting Brackets & Screw Mounting Clips	\$.12
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**Connectors**



Part Numbers:  
93-PLUG2P-DR....2 pins  
93-PLUG3P-DR....3 pins  
93-PLUG4P-DR....4 pins  
93-PLUG5P-DR....5 pins  
93-PLUG6P-DR....6 pins

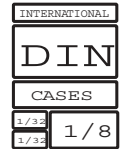
Part Numbers:  
93-PLUG2P-DS...2 pins  
93-PLUG3P-DS...3 pins  
93-PLUG4P-DS...4 pins

93-PLUG2P-DP	Extra Screw Terminal Conn., 2 Pin Power Plug	\$.2
93-PLUG2P-DR	Extra Screw Terminal Conn., 2 Pin Plug	\$.2
93-PLUG3P-DR	Extra Screw Terminal Conn., 3 Pin Plug	\$.3
93-PLUG4P-DR	Extra Screw Terminal Conn., 4 Pin Plug	\$.4
93-PLUG5P-DR	Extra Screw Terminal Conn., 5 Pin Plug	\$.5
CN-L18	Dual Row 18 Pin Edge Connector, Solder Type	\$.6



Custom Faceplates please see page 42





# DU-Series Meters

The DU-Series have a matching case style that is complimentary with the Lynx, Leopard and Tiger families of meters. For economy, each model is dedicated to a specific application.

Optional NEMA-4X Water and Dust Proofing Faceplate available



1/8 DIN 96x48 mm Meters (3.78"x1.89")

The DU-Series features user selectable 100 to 120 V AC or 200 to 240 V AC, 50/60 Hz isolated linear power supply. As an option an auto sensing isolated AC/DC 12 to 24 V AC, 9 to 36 V DC switching power supply or a 24 V AC isolated linear power supply may be ordered.

Standard 0.56" red LED display with optional Hi-efficiency green or super bright red LEDs.

- Quick, easy mounting into any panel thickness
- Direct flush mount into mosaic panels

### AC Current

- ▶ **DU-35ACI1** .....AC amperes, Scaled RMS. 1 Amp (built-in shunt) **(100.0)**, 3.5 digit
- ▶ **DU-35ACI5** .....AC amperes, Scaled RMS. 5 Amp (built-in shunt) **(100.0)**, 3.5 digit
- ▶ **DU-35ACIRMS1** ..AC amperes, True RMS. 1 Amp built-in shunt) **(100.0)**, 3.5 digit
- ▶ **DU-35ACIRMS5** ..AC amperes, True RMS. 5 Amp built-in shunt) **(100.0)**, 3.5 digit
- ▶ **DU-40ACI1** .....AC amperes, Scaled RMS. 1 Amp (built-in shunt) **(100.00)**, 4 digit
- ▶ **DU-40ACI5** .....AC amperes, Scaled RMS. 5 Amp (built-in shunt) **(100.00)**, 4 digit

### AC Voltage

- ▶ **DU-35AC** .....AC volts, Scaled RMS. **199.9** / 700 V AC, 3.5 digit
- ▶ **DU-35ACRMS**.....AC volts, True RMS **199.9** / 700 V AC, 3.5 digit
- ▶ **DU-40AC** .....AC volts, Scaled RMS. **700.0** V AC, 4 digit

### AC Line Frequency

- ▶ **DU-35HZ** .....Line frequency **199.9** or 500 Hz up to 700 V AC input, 3.5 digit

### DC Voltage

- ▶ **DU-35**.....DC volts selectable from **2 V** / 20 V / 200 V **(1.999)**, 3.5 digit
- ▶ **DU-35MV**.....DC mV selectable **50 mV** / 100 mV / 200 mV, 3.5 digit
- ▶ **DU-45**.....DC volts selectable from **2 V** / 20 V / 200 V **(1.9999)**, 4.5 digit
- ▶ **DU-45MV**.....DC mV selectable **50 mV** / 100 mV / 200 mV 4.5 digit

### Process 4 to 20 mA

- ▶ **DU-35CL** .....Process 4 to 20 mA, Fully user scalable **(100.0)**, 3.5 digit
- ▶ **DU-35CLE** .....Process 4 to 20 mA with 24 V DC exc., Fully user scalable **(100.0)**, 3.5 digit
- ▶ **DU-45CL** .....Process 4 to 20 mA, Fully user scalable **(100.00)**, 4.5 digit

### Pressure

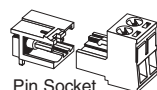
- ▶ **DU-35P** .....Strain gage, load cell, and pressure, 4- and 6-wire, 5 V DC excitation, selectable sensitivity from 2 mV to **20 mV / V (1000)**, 3.5 digit

### Temperature

- ▶ **DU-35J**.....J Thermocouple, order °C or °F 1° Res. **(760°C or 1400°F)**, 3.5 digit
- ▶ **DU-35K** .....K Thermocouple, order °C or °F 1° Res. **(1260°C or 1999°F)**, 3.5 digit
- ▶ **DU-35RTD**.....100-ohm platinum RTD, 2-, 3-, or 4-wire, order °C or °F, 3.5 digit and 1° or .1° resolution (see page 40 for specific resolution information for RTD)

Standard plug-in screw terminal connectors are provided

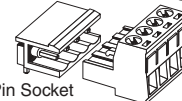
Input Power Screw Terminal Plug



Part Number: 93-PLUG2P-DP

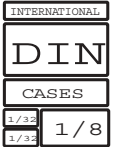
Pin Socket

Right-angled Screw Terminal Plug



Pin Socket

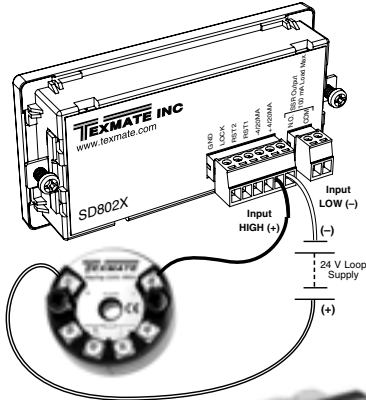
Part Numbers:  
93-PLUG2P-DR.....2 pins  
93-PLUG3P-DR.....3 pins  
93-PLUG4P-DR.....4 pins



# Loop Powered Meters

## World's First 5 & 6 Digit, 16-Bit, 4-20mA Loop Powered Meters

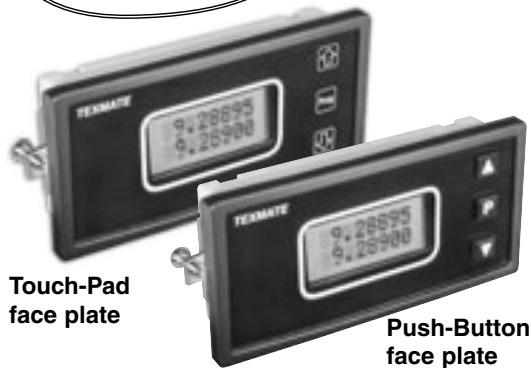
**Texmate Developed the World's First Loop Powered Meters, and We Continue our Leadership with the World's Easiest to Use, and Highest Resolution Loop Powered Meter**



**SD-SERIES 1/8 DIN 96X48 mm (3.78"x1.89") ULTRA SHORT DEPTH**

### Dual 8-Digit, 5.5mm High Dot-Matrix LCD Display

► **SD-802XA1** .....4-20mA DC Current Loop (**100.000**). Friendly front panel programming. Intuitive, user friendly calibration procedures. Single input channel with dual totalizers for sub and grand total processing. Smart digital filtering and programmable input averaging with averaging window for quick response time to large signal changes. Three external inputs using contact closures for resetting totalizer 1, totalizer 2, or preventing programming changes. One independent programmable setpoint. Setpoint activated from input or selected meter function. Setpoint hysteresis or deviation mode settings. Seven (7) relay timer modes. Single 210 mA, 400 VDC solid state relay (SSR). Relay latching. Manual relay reset. Programmable safety lockout to prevent tampering. Peak and valley retention. Optional NEMA-4 front cover. Square root extraction.

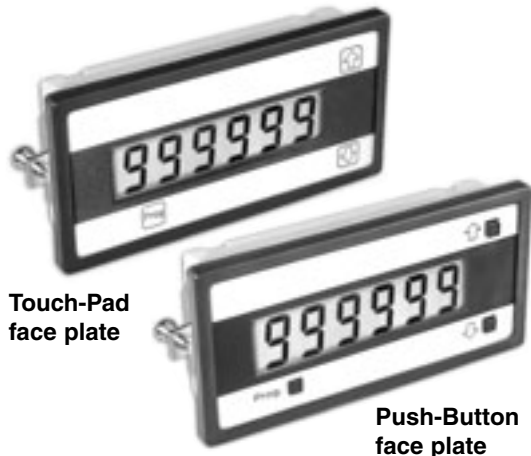


Touch-Pad face plate

Push-Button face plate

### 6 Digits with 0.5" LCD

► **SD-60XI** .....4-20mA DC Current Loop (**100.000**). Friendly front panel programming. Intuitive, user friendly calibration procedures. Single input channel with dual totalizers for sub and grand total processing. Smart digital filtering and programmable input averaging with averaging window for quick response time to large signal changes. Three external inputs using contact closures for resetting totalizer 1, totalizer 2, or preventing programming changes. One independent programmable setpoint. Setpoint activated from input or selected meter function. Setpoint hysteresis or deviation mode settings. Seven (7) relay timer modes. Single 210 mA, 400 VDC solid state relay (SSR). Relay latching. Manual relay reset. Programmable safety lockout to prevent tampering. Peak and valley retention. Optional NEMA-4 front cover. Square root extraction.



Touch-Pad face plate

Push-Button face plate

### 5 Digits with 0.5" LCD

► **SD-50X** .....4-20mA DC Current Loop (**100.00**). The SD-50X features lockable front panel scaling and calibration. Any 4 to 20 mA signal can be scaled from almost any two input values to display any required engineering unit of measure. A 4-20 mA input can display 50,000 counts of resolution from -19,999 to +30,000. The 6<sup>th</sup> digit can be selected to display °F, °C or an inactive extra zero from a dip switch at the rear of the case. With less than a 4 V loop drop, this meter can be inserted in the 24 V input loop excitation provided by our Lynx, Leopard and Tiger meter families. The optional 4-20 mA outputs from these meters can power several SD-50X units as remote displays. Two SD-50X meters can be mounted in a 96x96 DIN cutout and powered from the same loop, but display different scale readings such as °F and °C, lbs and kg or psi and Torr. Easy scaling and high resolution also enables the SD-50X to be used as a precision counting scale, for nuts and bolts, barrels or boxes.



Touch-Pad face plate

Push-Button face plate



# Short Depth Meters

## For Those Applications Where Space is at a Premium World's First Loop Powered LED Bargraph



1/16 DIN Short Depth  
96x24 mm (3.78"x0.95")  
Depth behind bezel 56.5 mm (2.23")  
Plus 17.5 mm (0.69") for connector



### SB-B31 1/16 DIN 96x24mm (3.78"x0.95")

The SB-B31 is an elegantly simple 4 to 20mA Loop Powered Bargraph. Low loop drop of only 4V. Needs no external power supply.

- Easy to Calibrate with ZERO and SPAN potentiometers
- Can be stacked for multiple meter mounting
- Choice of red, green or red/green/amber color options

#### 4 to 20mA Loop Powered

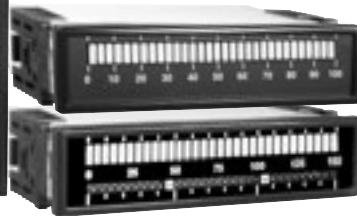
▶ **SB-B31** .....4-20mA Loop Powered. Standard red, green or red/green/amber 31 segment LED Display.

## 5VDC Powered LED Bargraphs with Optional One or Two Relays

These 1/16 DIN Bargraphs can be double mounted or Stack-mounted with a BN meter in a 1/8 DIN Cutout



1/16 DIN Short Depth  
96x24 mm (3.78"x0.95")  
Depth behind bezel 56.5 mm (2.23")  
Plus 17.5 mm (0.69") for connector



### AM-30 SERIES 1/16 DIN 96x24 mm (3.78"x0.95")

These AM-30 series short depth meters are 5 V DC powered, with 30 segment standard red or optional green or amber LED display. Optional Dot mode display. Input ranges: 50mV, 100mV, 200mV, 1V, 5V, 10V, 20V and 4-20 mA. 1 V DC input shipped as standard.

- Quick, easy mounting into any panel thickness
- Direct flush mount into mosaic panels

#### Selectable Process 4 to 20 mA or DC Voltage

- ▶ **AM-30** .....6 header selectable DC ranges plus 4 to 20 mA to choose from
- ▶ **AM-30R1** .....6 header selectable DC ranges plus 4 to 20 mA with one 2 A / 120 V AC relay
- ▶ **AM-30R2** .....6 header selectable DC ranges plus 4 to 20 mA with two 2 A / 120 V AC relays



Optional Push-On  
Screw Terminal Connector  
Part Number:CN-PUSH/AM

## 5VDC/Isolated 24VDC Powered Meters in a Compact 1/16 DIN Case



### BN-SERIES 1/16 DIN 96x24 mm (3.78"x0.95")

The BN-35CL, BN-35I and BN-45I meters feature an isolated 24 V DC power supply. Optional 12 V or 15 V supplies available. 0.56" standard red or optional green or super bright red LED display. This series of meters are pin to pin compatible to most USA and European half-height meters.

#### Process 4 to 20 mA

- ▶ **BN-35CL** .....Process 4 to 20 mA, 3.5 digit (**100.0**)

#### DC Voltage

- ▶ **BN-35I** .....Input range selectable from 200mV/ **2 V** / 20 V / 200 V DC, 3.5 digit (**1.999**)
- ▶ **BN-45I** .....Input range selectable from 200mV/ **2 V** / 20 V / 200 V DC, 4.5 digit (**1.9999**)

The BN-35, BN-45, BN-35BCD and BN-40BCD meters are **5 V DC** powered. 0.56" standard red or optional green or super bright red LED display.

#### DC Voltage

- ▶ **BN-35** .....DC volts selectable from 200mV/ **2 V** / 20 V / 200 V, 3.5 digit (**1.999**)
- ▶ **The BN-35 is pin to pin compatible with Newport model 215**
- ▶ **BN-45** .....DC volts selectable from 200mV/ **2 V** / 20 V / 200 V, 4.5 digit (**1.9999**)

#### BCD Remote Display

- ▶ **BN-35BCD** .....Remote BCD display • Parallel or MUX BCD inputs • 3.5 digit with polarity
- ▶ **BN-40BCD** .....Remote BCD display • Parallel or MUX BCD inputs • 4 digit



Optional Push-On  
Screw Terminal Connector  
Part Number:CN-PUSH/BN



## Short Depth Meters

For Those Applications Where Space is at a Premium

### Dual Function, High Performance, Low Cost Gen Set App Meter

Designed for air dropped missile launcher power supplies. This meter will suit almost any gen set applications

**DD-SERIES 1/16 DIN 96x24 mm (3.78"x0.95")**



#### Dual AC Volts and Hertz, Signal Powered



Optional Push-On Screw Terminal Connector  
Part Number: CN-PUSH/DD

- ▶ **DD-40VHZ** .....The DD-40VHZ has a dual display of AC Volts (30.0 to 350.0 V AC) and frequency (20.0 to 450.0 Hz) • AC/DC auto sensing isolated power supply 85-265 V AC / 90-380 V DC power supply • 0.3" standard red or optional green LED display

### Multi-Range, Easily-Scaled 12/24V AC/DC Powered Meters

1/32 DIN 48x24 mm  
(1.89"x0.95")  
Depth behind Bezel 81 mm (3.2")  
Plus 11.5 mm  
(0.45") for  
connector

- Quick, easy mounting into any panel thickness
- Direct flush mount into mosaic panels



Connector is included

**MU-SERIES 1/32 DIN 48x24 mm (1.89"x0.95")**

The MU series meters have an AC/DC auto sensing isolated power supply 12 to 24 V AC / 9 to 36 V DC power supply. 0.3" standard red or optional green LED display. Dummy zero option available.

- ▶ **MU-35** .....DC volts selectable from **2 V / 20 V / 200 V (1.999)**
- ▶ **MU-35MV** .....DC mV selectable from **50 mV / 100 mV / 200 mV (100.0)**
- ▶ **MU-35CL** .....Process 4 to 20 mA. Fully user scalable in engineering units (**100.0**)

### Ultra Short Depth 5V DC Powered Meter

1/8 DIN Ultra Short Depth 96x48 mm  
(3.78"x1.89")  
Depth behind Bezel 15 mm (0.59")  
Plus 15 mm (0.59")  
for connector

- Pin to Pin Compatible with Asahi AP-501

**SD-SERIES 1/8 DIN 96x48 mm (3.78"x1.89") ULTRA SHORT-DEPTH**

#### DC Voltage

- ▶ **SD-35** .....5 V DC power supply. Standard 0.56" red or optional green or super bright red LED display. 3.5 digit, **2 / 20 / 200 / Custom DC V ranges (1.999)**.



Optional NEMA-4X Water and Dust Proofing Faceplate available

### 5VDC and 24VDC Auto-Sensing Power Supplies



▶ **PS-2405** .....24VDC Regulated Power Supply, 0.5A Output.



▶ **PS-520** .....5VDC Regulated Power Supply, 2A Output.



# DU & Short Depth Series Ordering Info

**Order Code Suffix**      **Description**      **US\$ List**

► **MODEL NUMBER**

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

Standard LED display is Red (for other colors see DISPLAY OPTIONS)

AM-30	.Red 30 Seg. Bargraph, 0.05/0.1/0.2/1/5/10VDC/4-20mA	\$.109
AM-30R1	.Red 30 Seg. Bargraph, 1 VDC std w/one 2 A/120 VAC relay	\$.139
AM-30R2	.Red 30 Seg. Bargraph, 1 VDC std w/two 2 A/120 VAC relay	\$.169
BN-35	.3.5 digit, 5VDC Power, 0.2/2/20/200V DC ( <b>1.999</b> )	\$.99
BN-35BCD	.3.5 digit, 5VDC Pwr, Parallel or MUX BCD input	\$.149
BN-35CL	.3.5 digit, Isolated 24VDC Power, 4-20mA input ( <b>100.0</b> )	\$.139
BN-35I	.3.5 digit, Isolated 24VDC Power, 0.2/2/20/200VDC ( <b>1.999</b> )	\$.129
BN-40BCD	.4.0 digit, 5VDC Pwr, Parallel or MUX BCD input	\$.169
BN-45	.4.5 digit, 5VDC Power, 0.2/2/20/200VDC ( <b>1.9999</b> )	\$.119
BN-45I	.4.5 digit, Isolated 24VDC Pwr, 0.2/2/20/200VDC ( <b>1.9999</b> )	\$.149
DD-40VHZ	.4.0 digit, dual V/Hz display, 30-350 VAC/20-450 Hz input	\$.160
DU-35	.3.5 digit, DCV measuring, 2/20/200V DC ( <b>1.999</b> )	\$.85
DU-35AC	.3.5 digit, ACV measuring, <b>199.9/700V</b> AC	\$.119
DU-35AC1	.3.5 digit, measures amp AC, 1 A AC ( <b>100.0</b> )	\$.125
DU-35AC15	.3.5 digit, measures amp AC, 5 A AC ( <b>100.0</b> )	\$.125
DU-35AC1RMS	.3.5 digit, measures amp AC RMS, 1 A AC ( <b>100.0</b> )	\$.145
DU-35AC15RMS	.3.5 digit, measures amp AC RMS, 5 A AC ( <b>100.0</b> )	\$.145
DU-35ACRMS	.3.5 digit, measures VAC RMS, <b>199.9/700VAC</b>	\$.139
DU-35CL	.3.5 digit, Process 4-20mA input ( <b>100.0</b> )	\$.105
DU-35CLE	.3.5 digit, Process 4-20mA w/24VDC excitation ( <b>100.0</b> )	\$.119
DU-35HZ	.3.5 digit, measures AC Frequency, <b>199.9Hz</b> or 500Hz	\$.129
DU-35JC	.3.5 digit, <b>J</b> thermocouple in °C, <b>1° Res. (760°C)</b>	\$.119
DU-35JF	.3.5 digit, <b>J</b> thermocouple in °F, <b>1° Res. (1400°F)</b>	\$.119
DU-35KC	.3.5 digit, <b>K</b> thermocouple in °C, <b>1° Res. (1260°C)</b>	\$.119
DU-35KF	.3.5 digit, <b>K</b> thermocouple in °F, <b>1° Res. (1999°F)</b>	\$.119
DU-35MV	.3.5 digit, measures DCmV, <b>50/100/200mV</b>	\$.99
DU-35P	.3.5 digit, measures Pressure, <b>2/5/10/20mV/V</b>	\$.159
DU-35RTD-C	.3.5 digit, Pt., 100 Ohm meter in °C, <b>1° (-190°C to 190°C)</b>	\$.119
DU-35RTD-C.1	.3.5 digit, Pt., 100 Ohm meter in °C, <b>0.1° (-199.9°C to 199.9°C)</b>	\$.119
DU-35RTD-F	.3.5 digit, Pt., 100 Ohm meter in °F, <b>1° (-199°F to 1470°F)</b>	\$.119
DU-35RTD-F.1	.3.5 digit, Pt., 100 Ohm meter in °F, <b>0.1° (-199.9°C to 199.9°F)</b>	\$.119
DU-40AC	.4 digit, measures ACV, <b>700.0 VAC</b>	\$.159
DU-40AC1	.4 digit, measures amps AC, 1 A AC ( <b>100.0</b> )	\$.169
DU-40AC15	.4 digit, measures amps AC, 5 A AC ( <b>100.0</b> )	\$.169
DU-45	.4.5 digit, measures DCV, <b>2/20/200V (1.9999)</b>	\$.149
DU-45CL	.4.5 digit, Process 4-20mA input ( <b>100.0</b> )	\$.159
DU-45MV	.4.5 digit, measures DC mV, <b>50/100/200mV</b>	\$.155
MU-35	.3.5 digit, Iso., <b>2/20/200 VDC, 5-36VDC/12-24VAC Pwr (1.999)</b>	\$.99
MU-35CL	.3.5 digit, Iso., 4-20mA input, 5-36VDC/12-24VAC Pwr ( <b>100.0</b> )	\$.119
MU-35MV	.3.5 digit, <b>50/100/200mVDC, Iso., VDC or VAC Pwr (100.0)</b>	\$.109
SB-B31	.Red 31 Segment Bargraph, 4-20mA Loop Powered	\$.75
SD-35	.3.5 digit, <b>2/20/200VDC, 5VDC Pwr (1.999)</b>	\$.79
SD-50X	.5.0 digit LCD, 16-bit, 4-20mA Current Loop Powered ( <b>100.00</b> )	\$.150
SD-60XI	.6.0 digit LCD, 16-bit, 4-20mA Current Loop Powered ( <b>100.000</b> )	\$.199
SD-802XAI	.Dual 8.0 digit LCD, 16-bit, 4-20mA Curr. Loop Pwr'd. ( <b>100.000</b> )	\$.239

**Order Code Suffix**      **Description**      **US\$ List**

BN-GREEN	. . . . .3.5 digit, Green LED display	\$.10
BN-GREEN4	. . . . .4.5 digit, Green LED display	\$.15



► **For DU Series only**

DU-BRIGHT	. . . . .3.5 digit Super bright Red LED, 0.56 inches high	\$.20
DU-BRIGHT4	. . . . .4.5 digit Super bright Red LED, 0.56 inches high	\$.25
DU-GREEN	. . . . .3.5 digit Green LED display	\$.10
DU-GREEN4.5	. . . . .4.5 digit Green LED display	\$.15
DU-GREEN4.5D	. . . . .Dummy zero 3.5 digit Green LED display	\$.25
DU-RED4.5D	. . . . .Dummy zero 3.5 digit Red LED display	\$.25
DU-GREEN/JK	. . . . .Green LED display for DU-35J/K	\$.10
DU-GREEN/RTD	. . . . .Green LED display for DU-35RTD	\$.10
DU-35HI/BRT	. . . . .Above center position, 3.5 digit, 0.56 inch, Bright Red LED	\$.30
DU-35HI/GRN	. . . . .Above center position, 3.5 digit, 0.56 inch, Green LED	\$.20
DU-35HI/RED	. . . . .Above center position, 3.5 digit, 0.56 inch, Red LED	\$.10
DU-45HI/BRT	. . . . .Above center position, 4.5 digit, 0.56 inch, Bright Red LED	\$.35
DU-45HI/GRN	. . . . .Above center position, 4.5 digit, 0.56 inch, Green LED	\$.25
DU-45HI/RED	. . . . .Above center position, 4.5 digit, 0.56 inch, Red LED	\$.15
DU-C/F	. . . . .Header Select °C/°F for DU-35J/K/RTD	\$.30

► **For MU Series only**

MU-GREEN	. . . . .Green LED Display	\$.10
MU-GREEN4.5	. . . . .Dummy zero option with GREEN Display	\$.25
MU-RED4.5	. . . . .Dummy zero option with RED Display	\$.25



► **For SD-50X only**

OP-SD50X/PB	. . . . .Push Button Display	\$.10
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► **For SD-35 only**

SD-35BRIGHT	. . . . .Super bright Red LED	\$.20
SD-35GREEN	. . . . .Green LED display	\$.10



► **POWER SUPPLY OPTIONS**

► **For DU Series**

V0-DC/ISO	. . . . .Isolated Pwr Supply 9 to 36VDC/12 to 24 VAC for DU mtr	\$.35
V0-24V	. . . . .Isolated transformer 12/24 VAC for DU series	\$.15

► **For BN Series**

V0-ISO/PS-09	. . . . .BN-35I and BN-45I only, Isolated 9VDC Power Supply	\$.5
V0-ISO/PS-12	. . . . .BN-35I and BN-45I only, Isolated 12VDC Power Supply	\$.5
V0-ISO/PS-15	. . . . .BN-35I and BN-45I only, Isolated 15VDC Power Supply	\$.5

► **External Power Supply**

PS-520	. . . . .5VDC Regulated Power Supply, 2A Output	\$.25
PS-2405	. . . . .24VDC Regulated Power Supply, 0.5A Output	\$.25

► **SPECIAL OPTIONS (Specify Inputs & Req. Reading)**

► **Range Change**

HD-CHANGE	. . . . .Factory calibrated range change, see specific meter's data sheet	\$.7
CB-FS35	. . . . .Non-Std Range & Scaling for 3.5 digit mtr & AM-30 series	\$.10
CB-FS35ACHZ	. . . . .Special Frequency Calibration for DU-35AC only	\$.15
CB-FS35ACV	. . . . .Range change 200mV/2V/20VAC FS for DU-35AC/ACRMS	\$.15
CB-FS45	. . . . .Non-Std Range & Scaling for 4.5 & 5.0 digit meters	\$.20
OP-DXEXTDP	. . . . .External Decimal Point Option	\$.20

► **Scaling for Special Meter Models Only**

VRC-DPM	. . . . .BN-35 & BN-35I only, 200mV, 20V or 200VDC Range change	\$.10
VRC-4/20	. . . . .Range change for BN-45I, 4-20mA	\$.20
V0-50K	. . . . .Zero offset 50K Pot for BN, DU-35, DU-45, MU-35 & MU-35MV	\$.5
VRC-DPM	. . . . .DU-35Hz only; Range change to 500Hz/1Hz Resolution	\$.10

► **Special Options and Accessories**

► **DISPLAY OPTIONS**

► **For SB-B31 only**

SB-VERT/RED	. . . . .Vertical Red (standard)	\$.0
SB-HORZ/RED	. . . . .Horizontal Red LED option	\$.10
SB-VERT/GRN	. . . . .Vertical Green LED option	\$.10
SB-HORZ/GRN	. . . . .Horizontal Green LED option	\$.10
SB-MULTI	. . . . .Red, Green or Amber LEDs (10 segment increments)	\$.10



► **For AM-30 Series only**

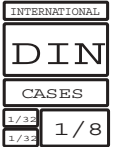
AM-VERT/RED	. . . . .Vertical Red (standard)	\$.0
AM-HORZ/RED	. . . . .Horizontal Red LED option	\$.10
AM-VERT/GRN	. . . . .Vertical Green LED option	\$.10
AM-HORZ/GRN	. . . . .Horizontal Green LED option	\$.10
AM-MULTI	. . . . .Red, green or amber LEDs (10 seg. increments)	\$.10
AM-30DOT	. . . . .Dot mode or center zero dot mode for AM-30 only. Specify left or center zero. Includes -100 to +100 center zero faceplate.	\$.10



► **For BN Series only**

BN-BRIGHT	. . . . .3.5 digit, Super bright Red LED	\$.20
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# DU & Short Depth Series Ordering Info

**Order Code Suffix Description US\$ List**

**▶ ACCESSORIES**

**Case Accessories**

**96x48mm Standard Length - DU Series**

- DN.CAS96X48B . . . .96x48mm Complete Case with bezel . . . . . \$20
- 75-DBBZ9648F . . . .Black Bezel for 96x48mm Case . . . . . \$2
- 75-DMTCLIPF . . . .Mounting Slide Clips, extra set (96x48mm case size) . . . . \$2
- OP-MTL96X48 . . . .Metal Surround Case, includes screw mounting clips . . . . \$16
- OP-MTLCLIP . . . .Screw Mounting Clips (2 pc) to screw tighten slide brackets . . . \$6



- Provides extra strength.
- Blocks out electrical noise.
- Protects against the spread of panel fires.



**96x48mm Ultra Short Depth - SD-Series**

- SD-CASE96X48 . . . .96x48mm Complete Ultra Short Depth Case with Bezel . . . \$12
- 75-DBBZ9648F . . . .Black Bezel for 96x48mm Case . . . . . \$2
- 75-SDMTCLIP . . . .Screw Mounting Clips (2 pc) . . . . . \$2

**96x24mm Short Depth - AM-30 Series, BN Series, DD-40 and SB-B31**

- DN.CAS96X24 . . . .96x24mm Complete Short Depth Case with Bezel . . . . . \$15
- 75-DBBZ96X24 . . . .Black Bezel for 96x24mm Case . . . . . \$2
- 75-DMTC96X24 . . . .Mounting Slide Clips, extra set (96x24mm case size) . . . . \$2
- OP-MTLCLIP . . . .Screw Mounting Clips (2 pc) to screw tighten slide brackets . . . \$6
- 75-DTP96X24 . . . .Black Metal Trim Plate (96x24mm Case) 1 Meter . . . . \$6
- 75-DTP2X9624 . . . .Black Metal Trim Plate (96x24mm Case) 2 Meters . . . . \$6
- 75-DTP3X9624 . . . .Black Metal Trim Plate (96x24mm Case) 3 Meters . . . . \$6

**48x24mm - MU Series**

- MU-CASE48x24 . . . .48x24mm Complete Case with Bezel . . . . . \$12
- 75-MUBEZEL . . . .Black Bezel for 48x24mm Case . . . . . \$2
- 75-MUMTBRKT . . . .Mounting Slide Clips, extra set (48x24mm case size) . . . . \$2

**NEMA-4X Clear Lockable Water and Dust Proof Cover**

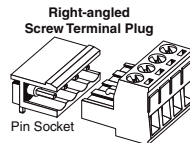
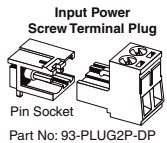
- OP-N4X/96X48 . . . . .NEMA 4X clear cover, dust & waterproof, DU & SD series only . . . . \$20

- Stay-open snap latch for vertical mounting.
- Strong, impact-resistant polycarbonate with water tight capillary seal between window and frame.
- Plastic key lock can be removed and replaced with a standard industrial safety seal to prevent unauthorized openings.
- Shipped with O-ring for smooth panel to frame sealing & adhesive backed foam Neoprene gasket for texture panel to frame sealing.



**Connectors**

- 93-PLUG2P-DP . . .Extra Screw Terminal Conn., 2 Pin Power Plug . . . . \$2
- 93-PLUG2P-DR . . .Extra Screw Terminal Conn., 2 Pin Plug . . . . . \$2
- 93-PLUG3P-DR . . .Extra Screw Terminal Conn., 3 Pin Plug . . . . . \$3



- Part Numbers:  
 93-PLUG2P-DR.....2 pins  
 93-PLUG3P-DR.....3 pins  
 93-PLUG4P-DR.....4 pins  
 93-PLUG5P-DR.....5 pins  
 93-PLUG6P-DR.....6 pins

- 93-PLUG4P-DR . . .Extra Screw Terminal Conn., 4 Pin Plug . . . . . \$4
- CN-L15 . . . . .Dual Row 15 Pin Edge Connector, Solder Type for . . . . . \$3.75
- . . . . .AM, BN and DD series meters

- CN-L18 . . . . .Dual Row 18 Pin Edge Connector, Solder Type . . . . . \$6



- CN-PUSH/AM . . . .Push-on Screw Terminal Block Connector . . . . . \$18
- CN-PUSH/BN . . . .BN series: Push-on Screw Terminal Block Connector . . . . \$18
- Note: Do not use for BN-35BCD or BN-40BCD meters.
- When connector is used with BN-45 & BN-45I, display is limited to three decimal points . . . . . \$18

**Order Code Suffix Description US\$ List**

- CN-PUSH/DD . . . . .Push-on Screw Terminal Block Connector for DD-40VHZ only . . . . \$18



Custom Faceplates please see page 42

**NEMA-4X Water and Dust Proof Membrane Touch-pad Faceplate**

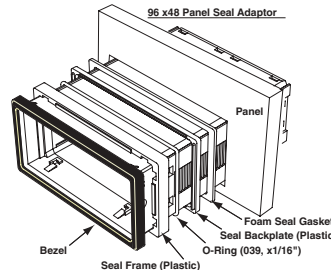


water tight and dust free seal to the meter.

- 76-D35G-N4 . . . . .3.5 digit NEMA 4 Green LED Faceplate, Factory Installed . . . \$8
- 76-D35R-N4 . . . . .3.5 digit NEMA 4 Red LED Faceplate, Factory Installed . . . \$8
- 76-D45G-N4 . . . . .4.5 digit NEMA 4 Green LED Faceplate, Factory Installed . . . \$8
- 76-D45R-N4 . . . . .4.5 digit NEMA 4 Red LED Faceplate, Factory Installed . . . \$8

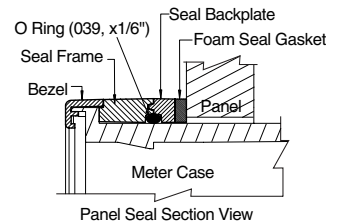
**NEMA-4X Panel to Case Seal Adapters**

- OP-PSA/96X48 . . . .Panel to Case Seal Adapter with O-Ring & Foam Gasket . . . . \$7



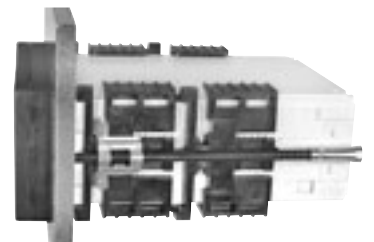
**The Panel Seal Kit consists of:**

An Interlocking Seal Frame and Seal Backplate that hold an O-Ring in a water tight seal between the meter and the seal frames. An adhesive backed Foam Seal Gasket provides a seal between the Seal Backplate and the panel surface.



**High Strength Panel Mounting Adapter Kit**

Enables 96x48 cases to be mounted in a 87.4x40.8mm (3.45"x1.16") panel cutout for extra high vibration or impact resistance. Multiple sets of adapters can be installed to extend the bezel outward from the panel, which also reduces the depth behind the panel.



- OP-PMA96X48 . . . .Panel Cutout Reinforcer with 2 Slide Mounting Brackets & Screw Mounting Clips . . . . . \$12

# Standard or Custom Faceplates and Scales for Bargraphs and Meters

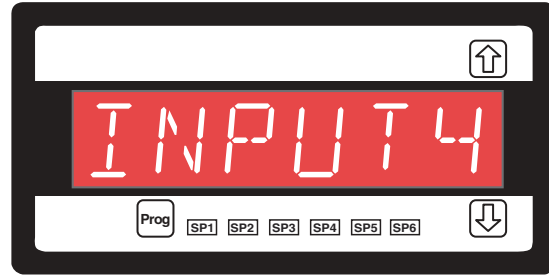
**Texmate Produces Thousands of Custom OEM Faceplates**  
**Have Texmate Design and install a Custom Faceplate to Suit your Next project!**



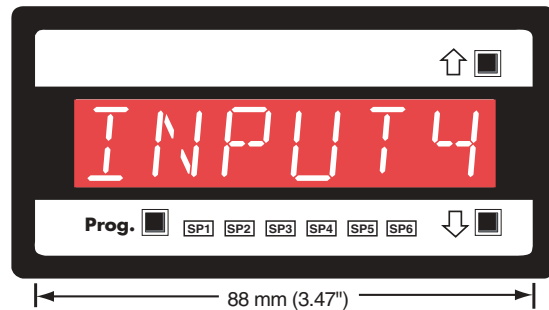
- Custom faceplates have a non-recurring artwork charge. A serial number is then assigned to each artwork, to facilitate re-ordering.

- Small Run or One-Off custom faceplates incur an installation charge, and are generally printed on a special plastic film, which is then laminated to custom faceplate blanks as required.

- The non-recurring artwork charge is less if you choose elements from our library. The standard scales and numbers in the library are those shown in our Scales & Caption Sheets.
- Large Run (250 pieces min): custom face plates are production silk screened, issued a part number, and held in stock for free installation as required by customer orders.
- OEMs may also order Custom Meter Labels, Box Labels Custom Data Sheets and Instruction Manuals.



Sample



40 mm (1.57")

## Standard Faceplate Descriptor Sheets

AC	Ω	kV	kVAR	m <sup>3</sup> /hr	Hz	RPM
V	mV	min	PF	°F	°C	Cosφ
DC	x10kN	μA	PSIG	mS	kg/cm <sup>2</sup>	psi
kW	W	kWH	pH	%	K	kPa
A	mbar	mA	MW	KA	RPS	MWH
mWs	μm	kW/s	I	l/sec	ml	cm
ORP	mm/s	1/min	mm	kg/sec	lbs	kg/hr
FT	bars	min <sup>3</sup>	m/min	Mvars	μV	dB

Each DU-meter is supplied free with a white printed clear adhesive label containing various popular descriptors. Choose the descriptor desired, peel off the adhesive backing and align the descriptor at desired location of the faceplate.

Volts AC	Volts DC	Hz	RPM
Amps AC	Amps DC	DCμA	
Milliamperes AC	Milliamperes DC	°C	
Millivolts AC	Millivolts DC	°F	
Kilowatts	Watts	%	pH
kg/cm <sup>2</sup>	Kilovolts AC	psi	
kWH	kVAR	Power Factor	
kΩ	Cosφ	M/min	m <sup>3</sup> /hr

Each UM-meter is supplied free with a white printed clear adhesive label containing various popular descriptors. Choose the descriptor, peel off the adhesive backing and align the descriptor in the lower right corner of the standard face plate.

## Custom Faceplate Ordering Information

Part Number	Description	List
ART-FS-S/D	Custom Faceplate, No Min. - Artwork & set-up	\$35
ART-FS-S/D/C	Custom Faceplate, No Min. - Artwork & set-up + Logo	\$75
ART-FS-001	Produce & Install Custom Faceplate per meter - 1 color	\$10
ART-FS-002	Produce & Install Custom Faceplate per meter - 2 color	\$20
ART-FS-003	Produce & Install Custom Faceplate per meter - 3 color	\$30

Specify artwork serial # when ordering faceplate installation. ie: **AFS-XXXX**

## Large Run Custom Faceplates for Meters

ART-FL-S/D/C	Custom Faceplate, 250 Min. - Artwork & set-up + Logo	\$75
ART-FL-001	Custom Faceplate, 250 Min. (\$1.00 each) - 1 color	\$250
ART-FL-002	Custom Faceplate, 250 Min. (\$1.40 each) - 2 color	\$350
ART-FL-003	Custom Faceplate, 250 Min. (\$1.80 each) - 3 color	\$450

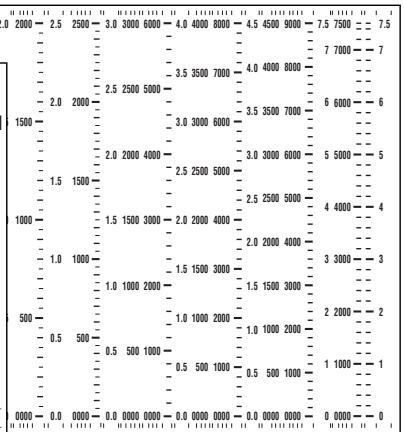
When ordering Large Run Faceplates to be installed, please specify the custom part number issued for each different artwork. ie: **77-DLXXXX**

## Standard Caption Sheets and Bargraph Scales (white or black lettering for do-it-yourself customizing)

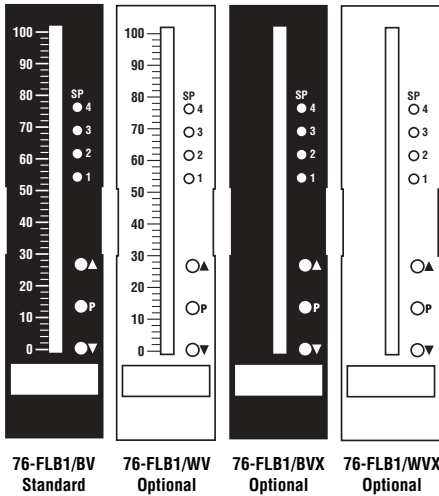
Clear self-adhesive caption sheets are provided free with each Tiger, Leopard & Lynx instrument. Bargraph Scales and Caption Sheets are provided in white or black lettering, opposite of the color of the bargraph faceplate ordered.

AHEAD	AC Vars	AC Amperes	AC Kilowatts	AIR PRESSURE	AC Milliamperes
ALARM	AC Volts	AC Kilovolts	AC Millivolts	AC Kiloamperes	Battery Voltage
BOILER	AC Watts	AC Kilovolts	BPH X 1000	AC Megavars	Backup Voltage
Cycles	BEARING	AIR FLOW	CFH x 1000	AC Megawatts	Displacement
Depth	COOLANT	BIBS/HOUR	DC Amperes	AC Watts/Vars	DC Amps to Grd
HEATER	DC Volts	BFM AMPS	DC Kilowatts	CENTIMETERS	DC Microamperes
Height	DC Watts	BHP x 100	DC Kilowatts	DC Kilometers	DC Milliamperes
Hertz	Degrees	BLOWER	DC Millivolts	FD FAN AMPS	GALLONS / MIN
Hours	ENGINE	DC Current	FPM X 100	IN. H <sub>2</sub> O PRESS	GENERATOR AM
INCHES	EXHAUST	Dew Point	FPM X 1000	LBS/MINUTE	LBS PER GALL
Input	Humidity	Degrees C	GPM X 1000	LEVEL INCHES	LOAD LIMIT PE
PORT	METERS	Degrees F	HORSEPOWER	LEVEL GALLONS	MANIFOLD PRE
PUMP	Output	Degrees K	INCHES WC	LEVEL PERCENT	MILL LOAD AM
Preset	Percent	Degrees R	INCHES H <sub>2</sub> O	MILLIMETERS	MOTOR LOAD A
Reset	Program	FPM X 10	KILOWATTS	Percent Current	Percent Horsep
SHAFT	Pounds	Frequency	LBS X 1000	Percent Load	OXYGEN PERCE
SPEED	Pulses	FUEL FLOW	MEGAWATTS	Percent OPEN	TEMPERATURE
Setup	RUDDER	GALLONS	Power Factor	RATE OF TURN	TEMPERATURE
TABLE	SPINDLE	IN. WATER	Phase Angle	STEAM TEMP °F	TEMPERATURE
Total	SQ ROOT	LEVEL FT.	RPM X 100	TONS / HOUR	LEFT RIGHT
VALVE	Set Point	LBS X 100	STARBOARD	OIL PRESSURE	FRONT REAR
Valley	THRUST	POSITION	TANK LEVEL	WATER LEVEL	FORWARD REV
WATTS	TURBINE	TONS X 10	VAC MM HG	1000 LBS/HOUR	TOP BOTTOM

A	AC	E <sub>b</sub>	Btu	bars	CFH	BHP	Low	inch/	Cosφ	AMPS	BBL/HR
J	Ah	kJ	bar	cal <sub>15</sub>	CFM	IPS	High	Kcal	FEET	GALS	BBL/MIN
K	cd	kV	cal	cm <sup>1</sup>	CFS	IPH	MGD	kg/hr	Hold	INHg	DEG/MIN
l	dB	kW	cm	cm <sup>2</sup>	COS	Kg/h	Mld	kVAR	Km <sup>3</sup> /h	m/min	FT H <sub>2</sub> O
m	DC	ml	FT <sup>3</sup>	cm <sup>3</sup>	CPH	KPH	MPH	kW/s	MWH	m/sec	In. H <sub>2</sub> O
V	FT	NL	lbs	dm <sup>3</sup>	CPM	KPM	MPS	RPM	mWs	Nm <sup>3</sup> /h	Kg/cm <sup>2</sup>
α	HP	Pa	IN <sup>2</sup>	H <sub>2</sub> O	CPS	KPS	N/m <sup>2</sup>	MPM	mbar	Ohms	KNOTS
β	Hz	PF	kg/	kPa	DCA	kWH	ORP	M <sup>3</sup> /hr	ml/m <sup>3</sup>	PSIA	Kg/sec
φ	Kg	pH	mA	l/s	FPH	lb/ft	PPH	Upm	mm/s	PSID	Mvars
Ω	kA	sin	mS	l/h	FPM	lb/in	PPM	VAC	Peak	PSIG	mmH <sub>2</sub> O
Δ	L <sup>3</sup>	t/h	M	l/m	FPS	LPH	PPS	Vars	PORT	PSIR	mmHg
∂	m <sup>3</sup>	yd <sup>3</sup>	NM	lb/h	GAL	LPM	RPH	VDC	STRB	SCFM	VOLTS
∂	W	μA	oz	MW	GMP	LPS	RPS	w/m <sup>2</sup>	TARE	TORR	%LOAD
γ	°C	μS	RH	min	GPH	m <sup>3</sup> /h	phi	YPM	TONS	U/min	%OPEN
∠	°K	μV	1/h	mm	GPM	m <sup>3</sup> /m	psi	YPS	X100	X10kN	
		∠									



# Standard or Custom Faceplates and Scales for Bargraphs and Meters



## Standard Face Plates and Scales

Unless otherwise specified, a standard 0-100 scaled face plate with white letters on a black background is provided with each meter. In those cases where a temperature module is ordered, a 0 – 200°F (white on black) face plate will be provided as standard.

Alternatively a face plate with black letters on a white background or a blank, white or black face plate, may be ordered as a no charge substitute. For temperature applications there are also several different optional face plates that may be ordered as a no charge substitute. (See left). Customized face plates with special scaling can also be ordered.

## Custom Faceplate Ordering Information

**Part Number**                      **Description**                      **List**

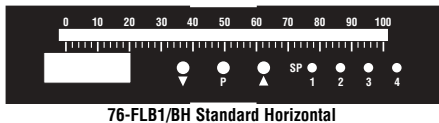
### Small Run Custom Faceplates for Bargraphs

ART-FB-S/L	.....NRC for artwork & set-up Faceplate/Library	.....\$35
ART-FB-S/N	.....NRC for artwork & set-up Faceplate/Non-Library	.....\$55
ART-FB-S/L/C	.....NRC for artwork & set-up Faceplate/Library/Co.Logo	.....\$75
ART-FB-S/N/C	.....NRC for artwork & set-up Faceplate/Non-Library/Co.Logo	.....\$95
ART-FB-001	.....Install Faceplate per meter - 1 color	.....\$10
ART-FB-002	.....Install Faceplate per meter - 2 color	.....\$20
ART-FB-003	.....Install Faceplate per meter - 3 color	.....\$30

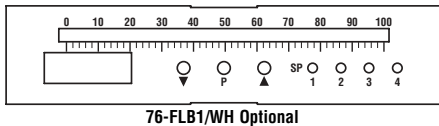
Specify artwork serial # when ordering faceplate installation. **ie: AFB-XXXX**

### Large Run Custom Faceplates for Bargraphs

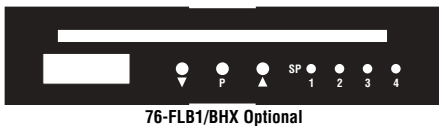
ART-FL-S/D/C	.....Custom Faceplate, 250 Min. - Artwork & set-up + Logo	.....\$75
ART-FL-001	.....Minimum order \$250 (\$250x\$1) - 1 color	.....\$250
ART-FL-002	.....Minimum order \$350 (\$250x\$1.40) - 2 color	.....\$350
ART-FL-003	.....Minimum order \$450 (\$250x\$1.80) - 3 color	.....\$450



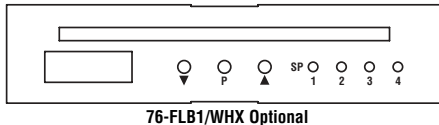
76-FLB1/BH Standard Horizontal



76-FLB1/WH Optional



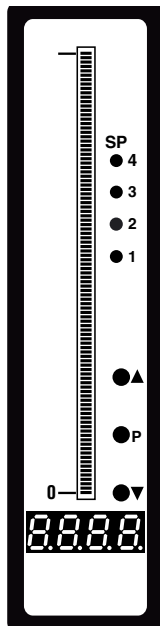
76-FLB1/BHX Optional



76-FLB1/WHX Optional

## Custom Bargraph Face Plates and Scales

### Sample



Faceplate scales and numbers are shown close to 54% of their actual size

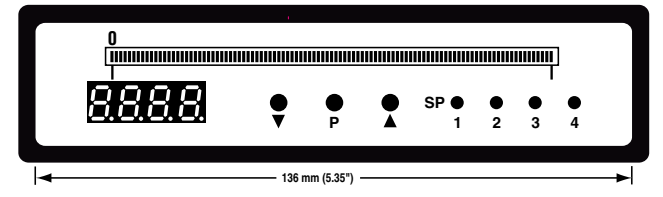
1	1.2	1.5	2	2.5	3	4	4.5	5	6	7.5	8	9
10	12	15	20	25	30	40	45	50	60	75	80	90
100	120	150	200	250	300	400	450	500	600	750	800	900
1000	1200	1500	2000	2500	3000	4000	4500	5000	6000	7500	8000	9000

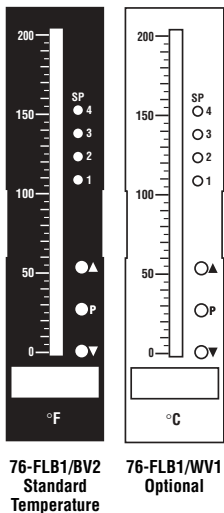
10	12	15	20	25	30	40	45	50	60	75	80	90
9					35	40	45	50	60	70	80	
8	10			20	25	30	35	40	50	60	70	
7		12		15								
6			9		15							
5	6		10		15	20	25	30	40	50	60	
4		6		10	15	20	25	30	40	50	60	
3	4			10	15	20	25	30	40	50	60	
2			3		5							
1	2			5	5	5	5	5	5	5	5	
0	0	0	0	0	0	0	0	0	0	0	0	0

10x5	6x2x2	5x3x2	4x5x2	5x5x2	6x5	8x5	9x5	10x5	6x5	7.5x5	8x5	9x5
Div. 50	24	30	40	50	30	40	45	50	30	37.5	40	45



## Face plates supplied with temperature modules.



Other optional face plates for temperature are also available in the following ranges:  
 0 to 200  
 0 to 1000  
 -200 to +200  
 (Zero Center Mode)

When ordering, specify white letters on a black background or black letters on a white background. Horizontal or vertical format and °F or °C caption.

# RESERVED FOR FUTURE USE



# UM-Series Traditional USA NEMA Case



**The UM Series is a Full Line of Low Cost Utility Meters for Switchboard and Process Measurement of Almost any Industrial Input Signal. The UM Series Delivers the Best Value for the Money.**

3.6"x1.91" (103.1x48.5 mm)



Optional 0.8" display for all UM series 3.5 digit models and UM-40AC

The UM-Series features user selectable 100 to 120 V AC or 200 to 240 V AC, 50/60 Hz isolated linear power supply. As an option an auto sensing isolated AC/DC 12 to 24 V AC, 9 to 36 V DC switching power supply or a 24 V AC isolated linear power supply may be ordered.

Standard 0.56" red LED display with optional Hi-efficiency green or super bright red 0.56" or 0.8" (3.5 or 4 digit only) LEDs . . . See page 50 for ordering information.

**AC Current**

- ▶ **UM-35AC11** .....AC amps, Scaled RMS, 1 Amp (**1.0.0.0.**), 3.5 digit
- ▶ **UM-35AC15** .....AC amps, Scaled RMS, 5 Amp (**1.0.0.0.**), 3.5 digit

**AC Voltage**

- ▶ **UM-35AC** .....700VAC and **199.9 V AC** full scale (**1.9.9.9.**), Scaled RMS, 3.5 digit
- ▶ **UM-40AC** .....**700.0VAC** full scale, Scaled RMS, 4 digit

**AC Line Frequency**

- ▶ **UM-35HZ** .....**40 Hz to 199.9 Hz** or 40 Hz to 500 Hz (**1.9.9.9.**), 3.5 digit

**DC Voltage**

- ▶ **UM-35** .....**±2 / 20 V DC** or optionally **±2 / 200 V DC** (**1.9.9.9.**), 3.5 digit
- ▶ **UM-35MV** .....**±50 mV** and **±100 mV** inputs to suit ext DC curr. shunts (**1.0.0.0.**), 3.5 digit
- ▶ **UM-45** .....**±2 / 20 V DC** or optionally **±2 / 200 V DC** (**1.9.9.9.9.**), 4.5 digit
- ▶ **UM-45MV** .....**±50 mV, ±100 mV, or ±200 mV** inputs to suit stan. DC curr. shunts (**1.0.0.0.0.**), 4.5 digit

**Process 4 to 20 mA**

- ▶ **UM-35CL** .....1.4 V loop drop, scalable in units from -1999 to +1999 (**1.0.0.0.**), 3.5 digit
- ▶ **UM-35CLE** .....Built-in 24 V DC loop excitation (**1.0.0.0.**), 3.5 digit

**Pressure**

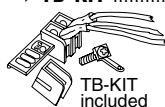
- ▶ **UM-35P** .....For pressure transducers with 2 mV / V to **20 mV / V** outputs with 5 V DC exc. (**1.0.0.0.**), 3.5 digit

**Thermocouple, 3.5 digit**

- ▶ **UM-35J** .....J therm. input, 1° res., order °C or °F (**1° Res. 760°C or 1400°F**), 3.5 digit
- ▶ **UM-35K** .....K therm. input, 1° res., order °C or °F (**1° Res. 1260°C or 1999°F**), 3.5 digit
- ▶ **UM-35RTD** .....3-wire, 100-ohm RTD, order °C or °F and 1° or .1° resolution (see page 50 for specific resolution information for RTD), 3.5 digit

**TB-KIT, Six Screw Terminals included Free with each UM Series meter**

- ▶ **TB-KIT** .....Consists of 3 insulated Quick Connects and 3 of Texmate's patented individual screw terminal blocks which attach directly to PCB inputs. These provide a Quick Connect tab and screw clamp termination. Two TB-KITs are included with all UM meter orders at no extra cost.



**Optional Push-On Screw Terminal Connector for UM Series**

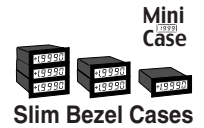
Texmate's exclusive Push-On Connector combines an edge card connector and a 10 position screw terminal block. Push-On Connectors are preconfigured for specific Texmate meters and power supply voltages.

- ▶ **CN-PUSH/UM** . . . 120 V AC
- ▶ **CN-PUSH/UM01** . 200 / 240 V AC
- ▶ **CN-PUSH/UM02** . Selectable 120 / 240 V AC
- ▶ **CN-PUSH/UM03** . 24 V AC
- ▶ **CN-PUSH/UM04** . 9-36 V DC / 12-24 V AC



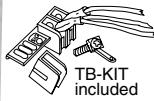


# 4-20 mA Loop Powered Meters



**Texmate Developed the World's First Loop Powered Meters, and We Continue our Leadership with the World's Best, Easiest to Use, and the Lowest Loop Drop.**

Also see our fantastic SD-50X, the world's First 5 digit 16 Bit programmable loop powered meter in an Ultra short depth 1/8 DIN case on page 37.



Normally shipped in individual Slim Bezel cases. Cases can be ordered in any combination of End Mount and Center Mount cases for stack mounting as shown.

### SLIM-BEZEL CASE

#### Loop-Powered, Process 4 to 20 mA, 0.48" LCD

- ▶ **CM-35XTL** .....Less than 1 V DC loop drop and 1 Joule energy storage • Fully user scalable to directly read in any engineering unit • Auto polarity with header selectable polarity disable and reversal • Programmable decimals • Header programmable trailing '0' digit or °C and °F descriptors • Reading Hold • TB-KIT screw terminal clips supplied with meter • Optional Push-On screw terminal connector, CN-PUSH/CM or PCB edge connector, CN-L10.
- ▶ **CM-35XT** .....Economical 4-20 mA loop powered meter • Standard 6.5 V loop drop • Fully user scalable to directly read in any engineering unit • Auto polarity with header selectable polarity disable and reversal • Programmable decimals • Header programmable trailing '0' digit or °C and °F descriptors • Reading Hold • TB-KIT screw terminal clips supplied with meter.

Optional Push-On Screw Terminal Connector Part Number:CN-PUSH/CM



Optional PCB Edge Connector Part Number:CN-L10



Connector is included

**World's first and smallest loop-powered LED meter**

### MINI-METER DVM-5 SERIES, 1.45"x0.59" (37x15 mm ) CASE

#### Loop-Powered, Process 4 to 20 mA

- ▶ **DVM-5/CL** .....3.5 digits, 0.276" LED display • Max 8 V DC loop drop • Factory scalable to directly read in any engineering unit • Designed for OEMs in the medical and scientific instrument field where small size and exceptional performance are crucial, this is one of the world's smallest meters • Weighs only 0.64 oz

## Signal Voltage Powered Meters

**Another Innovative First. Amps and Volts Measurement for Battery Back-Up Systems.**

### DC Signal-Powered, 0.48" LCD

- ▶ **SP-35X**.....DC voltage measurement from 3.5 V DC to 199.9 V DC • Automatic "+" or "-" Polarity indication • Easy 2-wire hook up • No power supply needed • Input impedance varies from 10 KΩ at <10 V DC to 60 KΩ with > 100 V DC inputs • Display is blanked before reading can become inaccurate with too low input signal (approx. 3.5 V DC)
- ▶ **SP-35XMV**.....Designed for DC current measurement with 50, 60 or 100 mV shunts in 10 V DC to 100 V DC systems • Header selectable for either "High side" or "Low side" shunt configurations • Fully user scalable to display any current • Easy 4-wire hook up • Polarity indication may be reversed or blanked • Selectable "A" and "DC" descriptors and decimal points, 1.xxx, 1x.xx and 1xx.x

Optional Push-On Screw Terminal Connector Part Number:CN-PUSH/SP



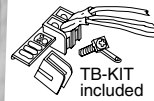
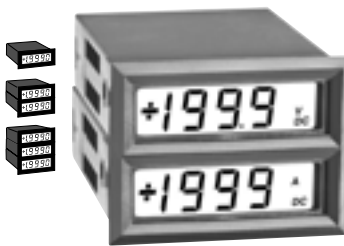
Optional PCB Edge Connector Part Number:CN-L10



## AC-DC True RMS Signal Powered Meter

### AC/DC True RMS Voltage Signal Powered Measurement

- ▶ **SP-35XRMS** .....AC / DC Voltage input • Two user selectable input ranges: 15.0 to 199.9 V AC/DC or 15 to 250 V AC/DC • Easy 2-wire hook up • No power supply needed • Ideal for switching measurements between 24 V DC to 240 V DC battery charger's or battery back-up systems and 120 V AC to 240 V AC inverter outputs • Also great for measuring voltage drops floating on high voltage systems, such as aluminum smelter pot-lines or energy storage systems.

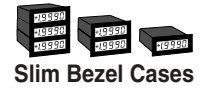


Normally shipped in individual Slim Bezel cases, can be ordered in End Mount cases for stack mounting as shown.





# AM-20 5V DC Powered Bargraphs



**Versatile DC Input Bargraph can be Stack- Mounted with any Slim Bezel Digital Meter.**

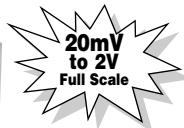
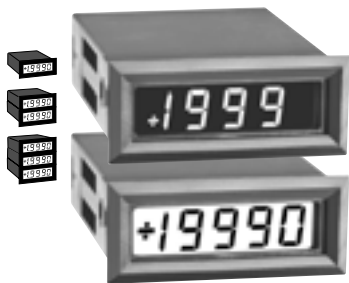


**Low Cost DC Input Bargraph, 5V DC Power**

- ▶ **AM-20** .....20 segment LED bargraph • Single ended positive inputs only
- Input ranges: 200 mV, 2 V, 20 V, 200 V and 1200 V • Selectable Dot or Bar mode and scale indicators
- X5 resolution increase with proportional brightness mode • Custom scaling available
- Operates as a center-zero meter with isolated 5 V power supply • 0.15" segments • Current consumption 20 mA in Dot mode, 240 mA in Bar mode • Can operate from 4 to 24 V DC in Dot mode

# SM & TM Series 3.5 Digit LCD/LED 5V DC Powered Meters

**Worlds Easiest to use DC Micro-Volt Resolution Meters**

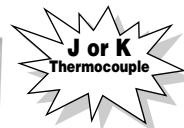


SM-35mV and SM-35XMV features a unique constant current 5V DC power input circuit that eliminates the ground loop problems and noise often encountered with low input voltage signals. This enables an easy 3 wire, signal, ground and +5V DC power hook up. Both meters have wide scaling and offset capabilities with fine and course adjustment. 20 mV, 200 mV and 2V DC header selectable input ranges are provided.

- ▶ **SM-35MV** .....LED display
- ▶ **SM-35XMV** .....LCD display with header selectable fixed trailing zero

Economy version with 2 V, 20 V, 200 V DC, header selectable ranges and standard 5V DC power.

- ▶ **SM-35** .....LED display
- ▶ **SM-35X** .....LCD display with header selectable fixed trailing zero



**TM-35 SERIES TEMPERATURE METERS IN STACKABLE SLIM BEZEL CASES**

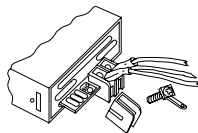
Unique differential input configuration allows several meters to be operated from the same 5V DC power supply with grounded Thermocouples. Select °C or °F and J or K.

**Type J and K Thermocouple Meters, 3.5 digit LED/LCD. Order °C or °F**

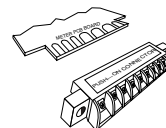
- ▶ **TM-35JC** .....LED, Type J, °C
- ▶ **TM-35K** .....LED, Type K, °C
- ▶ **TM-35XJC** .....LCD, Type J, °C
- ▶ **TM-35XKC** .....LCD, Type K, °C
- ▶ **TM-35JF** .....LED, Type J, °F
- ▶ **TM-35KF** .....LED, Type K, °F
- ▶ **TM-35XJF** .....LCD, Type J, °F
- ▶ **TM-35XKF** .....LCD, Type K, °F

**SCREW TERMINAL OPTIONS FOR THE CM, SM, SP AND TM-35 SERIES**

▶ **TB-KIT** ..... Consists of three insulated Quick Connects and three of Texmate's patented individual screw terminal blocks which attach directly to PCB inputs. These provide a Quick Connect tab and screw clamp termination. One TB-KIT is included with every CM, SM and SP meters and two TB-KITs are included with every TM-35 and SP-35XMV meter at no extra cost.



▶ **CN-PUSH/SM** ....Texmate's exclusive Push-On Connector combines an edge card connector and a 10 position screw terminal block. Push-On Connectors are preconfigured for specific Texmate's meters. CN-PUSH/SM connectors are compatible with all SM series meters. CN-PUSH/TM connectors are compatible with all TM-35 series meters.



# Auxiliary Power Supplies



▶ **PS-2405**.....24VDC Regulated Power Supply, 0.5A Output.



▶ **PS-520**.....5VDC Regulated Power Supply, 2A Output.

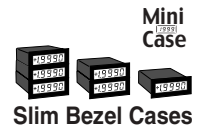


**100-125 / 208-250 V AC to 5V DC Power Supplies**

The **PS-505** with a 5V 500 mA output and the **PS-510** with a 5V 1 Amp output are general purpose low ripple, regulated power supplies suited for +5V DC powered DPM's • Both units provide user selectability for 100-125 V AC or 208-250 V AC operation.

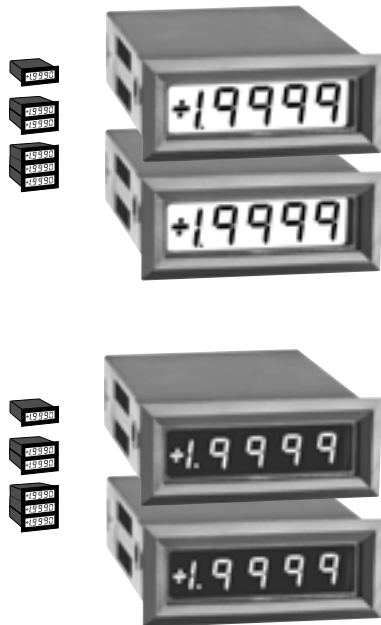


# PM-45 Series 4.5 Digit LCD & LED 5V DC Powered Meters



**High Performance Versatility for a Wide Variety of Applications Including a Parallel BCD Output Option that can be Interfaced with Multiple CP-45 BCD Comparators and or PLC's.**

### Slim Bezel Case DC Input, 4.5 Digit LED or LCD Display, 5 V DC Power



- ▶ **PM-45X** .....4.5 digit 0.48" LCD DPM • Super-stable temp-compensated reference • Accuracy 0.01% rdg + 1 digit • True differential and single-ended inputs • Input ranges: 200 mV, **2 V**, 20 V, 200 V, and 1200 V (**1.9999**) • Programmable decimals • Scaling in engineering units with offset capability • Over-range/under-range output • Busy output • Clock output • Run/Hold • Ultra-low power requirements 3-5 mA at +4.5 V to +5.5 V DC (25 mW)
- ▶ **PM-45XBCD** .....PM-45X with parallel BCD output compatible with CP-45 BCD comparator.
- ▶ **PM-45XU** .....Lower cost version of PM-45X. All the same features, but with accuracy of  $\pm 0.015\%$  rdg + 2 digits and standard temperature coefficient.
- ▶ **PM-45XUBCD** .....PM-45XU with parallel BCD output compatible with CP-45 BCD comparator.
- ▶ **PM-45L** .....4.5 digit 0.4" LED DPM • Super-stable temp-compensated reference • Accuracy 0.01% rdg + 1 digit • True differential and single-ended inputs • Input ranges: 200 mV, **2 V**, 20 V, 200 V, and 1200 V (**1.9999**) • Programmable decimals • Scaling in engineering units with offset capability • Over-range/under-range output • Busy output • Clock output • Run/Hold • Power requirements 225 mA at +4.5 V to +5.5 V DC
- ▶ **PM-45LBCD** .....PM-45L with parallel BCD output compatible with CP-45 BCD comparator.
- ▶ **PM-45LU** .....Lower cost version of PM-45L. All the same features, but with accuracy of  $\pm 0.015\%$  rdg + 2 digits and standard temperature coefficient.
- ▶ **PM-45LUBCD** .....PM-45LU with parallel BCD output compatible with CP-45 BCD comparator.

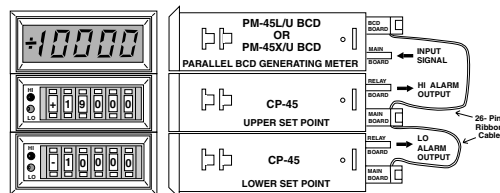
### BCD Comparator with relay. 5 V DC Power



- ▶ **CP-45** .....Single set point, 4.5 digit BCD comparator controller • Up to 4 units may be connected to parallel BCD outputs of PM-45XBCD/XUBCD & PM45LBCD/LUBCD meters to create any control configuration • Relay is 1 Amp Form C changeover contacts with 5 selectable modes to activate when signal is: greater than, equal to, less than, greater than or equal to, less than or equal to the set point.
- Adjustable activation delay to prevent relay chatter for noisy input signals • Relay also may be operated in latched mode w/ manual Reset • Stackable Slim Bezel case for multiple set points • 5 V DC power

### Comparator System Design and Application Notes

Up to five CP-45 comparators may be connected in parallel to a single PM-45LBCD, PM-45LUBCD, PM-45XBCD, or PM-45XUBCD meter, creating a multiple set point controller which can be easily configured. The CP-45 relay can be configured for fail safe operation.



## Mini Size Mighty Performance DC Volts & Temperature



Mini -Meters for tight spaces

### DC Volts and 100Ω Platinum RTD, 5 V DC Power Mini Meters

- ▶ **DVM-5** .....3.5 digits, 0.276" LED display • Factory input ranges available are 200 mV, **2 V**, 20 V and 200 V DC • Designed for OEMs in the medical and scientific instrument field where small size and exceptional performance are crucial, this is one of the worlds smallest meters • Weighs only 0.64 oz
- ▶ **DVM-5/RTD** .....3 wire 100Ω Platinum RTD sensor input, 5VDC Power (**-199.9 to 199.9°C** or **-200 to 800°C**), 0.276" LED display



# Texmate's Most Experienced Meters



Traditional  
**NEMA  
STYLE USA**  
CASE

**From Submarines to Space Shuttles, Oil Rigs to Medical Instruments, More Than 500,000 are Still on the Job. When You Need a Reliable Replacement, These Meters Truly Measure Up.**

## TEXMATE CLASSICS: GENERAL PURPOSE DC INPUT METERS

### DC Inputs, 5 V DC Power



- ▶ **PM-35U** .....Low cost, quality 3.5 digit DPM • Bright 0.3" LED's • Current • Differential inputs • Bipolar • Auto-zero • Radiometric • Ohms • Programmable decimals • Input ranges: 200 mV, **2 V**, 20 V, 200 V, and 1200 V ranges (**1.999**) • TC 100 ppm typical, 200 max
- ▶ **PM-35A** .....3.5 digits, 0.56" high LED's • Differential inputs • Programmable current and ohm-meter capability • Radiometric • Input ranges: 200 mV, **2 V**, 20 V, 200 V and 1200 V ranges (**1.999**) • Scaling in engineering units • Display test • Low TC 50 ppm typical • Auto-zero
- Bipolar • Programmable decimals • +5 V DC power at 200 mA
- ▶ **PM-35AR** .....Auto range (any two adjacent ranges) version of PM-35A (**199.9/1.999**)
- ▶ **PM-35X** .....3.5 digit low power LCD meter • Can be configured to a particular voltage in range of 3.5 V- 40 V DC w/ external resistors • Differential inputs • Programmable current and ohmmeter capability
- Radiometric • Input ranges: 200 mV, **2 V**, 20 V, 200 V and 1200 V ranges (**1.999**)
- Scaling in engineering units with offset
- ▶ **PM-35XAR** .....Auto range (any two adjacent ranges) version of PM-35X (**199.9/1.999**)
- ▶ **PM-35XAC110** ....115 V AC line operated DPM, fully isolated with internal transformer • PM-35XAC has all the features of the PM-35X but with AC power • Also operates on DC voltages of 9 V DC to 50 V DC
- ▶ **PM-35XACAR1** ....Auto range (any two adjacent ranges) version of PM-35XAC110
- ▶ **PM-45** .....Replaced by PM-45LU
- ▶ **PM-3.5** .....No longer available, use PM-35U or SM-35. See above or Page 47.



### Replacer Series, DC Inputs, 115 / 230 V AC Powered DPM's

- ▶ **RP-35U** .....115/230 V AC line powered DPM • 3.5 digits • True differential inputs • 200 mV-1200 V full scale • Accuracy  $\pm 0.05\%$  of reading +1 digit • 2 min warm up • TC 100 ppm typical
- ▶ **RP-35A** .....3.5 digit 115 / 230 V AC line powered DPM • Single ended and differential inputs • Configurable current and ohmmeter capability • 4-20 mA • Scaling in engineering units with offset • DC outputs • Display test • 200 mV full scale to 1200 V ranges • Precision meter, stable readings • 10 sec warm up • Accuracy  $\pm 0.05\%$  of reading +1 digit
- ▶ **RP-35AR** .....Auto range (any two adjacent ranges) version of RP-35A
- ▶ **RP-3500** .....Replaced by UM-Series, see page 45
- ▶ **RP-3500D2** .....Differential input, 3.5 digit, 0.56" LED display
- ▶ **RP-3500D2BCD** ..RP-3500D2 with Tri-state parallel BCD output
- ▶ **RP-4500** .....Replaced by UM-Series, see page 45
- ▶ **RP-4500D2** .....Differential input, 4.5 digit, 0.56" LED display
- ▶ **RP-4500D2BCD** ..RP-4500D2 with Tri-state parallel BCD output



# Application-Specific Ordering Info

**Order Code Suffix**      **Description**      **US\$ List**

**► MODEL NUMBER**

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

Standard LED display is Red (for other colors see **DISPLAY OPTIONS**)

Note **Connectors**: Some meters require connectors to be separately ordered (see Accessories, Connectors)

AM-20 ..... 20 segment, 200 mV to 200 V DC, **2V** std 5 V DC pwr ..... \$55

CM-35XT ..... 3.5 digit LCD, Loop Powered, 4-20mA (**1.0.0.0.0**) ..... \$86

CM-35XTL ..... 3.5 digit LCD, 1 Volt Drop, Loop Powered, 4-20mA (**1.0.0.0.0**) ..... \$110

CP-45 ..... 4.5 Digit BCD Comparator w/120VAC Relay Contacts ..... \$95

CP-45H ..... 4.5 Digit BCD Comparator w/240VAC Relay Contacts ..... \$100

DVM-5 ..... 3.5 digit Red LED, 5VDC Power, **2/20/200** VDC (**1.999**) ..... \$79

DVM-5/4-20 ..... 3.5 digit Red LED, 5VDC Power, 4-20 mA input (**100.0**) ..... \$99

DVM-5/CL ..... 3.5 digit Red LED, Loop Powered, 4-20 mA input (**1000**) ..... \$109

DVM-5/G ..... 3.5 digit Green LED, 5VDC Power, **2/20/200** VDC input (**1.999**) ..... \$84

DVM-5/MV ..... 3.5 digit Red LED, 5VDC Power, 200 mV DC input (**1.999**) ..... \$79

DVM-5/RTD1 ..... 3.5 digit Red LED, 5VDC Power, 0.1 °C (**-199.9 to 199.9°C**) ..... \$109

DVM-5/RTD2 ..... 3.5 digit Red LED, 5VDC Power, RTD input, 1 °C (**-200 to 800°C**) ..... \$109

PM-3.5 ..... No longer available, use PM-35U or SM-35

PM-35A ..... 3.5 digit Red LED, Precision Reference, **2VDC**, 5VDC pwr (**1.999**) ..... \$65

PM-35AR ..... 3.5 digit Red LED, Autoranging, **200mV/2VDC**, 5VDC pwr (**199.9/1.999**) ..... \$92

PM-35U ..... 3.5 digit Red LED, Low Cost, **2VDC**, 5VDC pwr (**1.999**) ..... \$39

PM-35X ..... 3.5 digit LCD, Low Power Consumption **2VDC**, 5VDC pwr (**1.999**) ..... \$79

PM-35XAR ..... 3.5 digit LCD, Low Pwr Autoranging, **200mV/2VDC**, 5VDC pwr (**199.9/1.999**) ..... \$90

PM-35XAC110 ..... 3.5 digit LCD, **2VDC**, 120VAC Power (**1.999**) ..... \$94

PM-35XACAR1 ..... 3.5 digit LCD, Autoranging, 120VAC Power ..... \$94

PM-45 ..... Replaced by PM-45LU

PM-45L ..... 4.5 digit Red LED, Precision Meter w/Diff. Input **2VDC** (**1.9999**) ..... \$110

PM-45LBCD ..... PM-45L w/Tri-State Parallel BCD Output, 5VDC pwr ..... \$140

PM-45LBCDO ..... BCD Output Board for PM-45L ..... \$40

PM-45LMUXBCD ..... PM-45L w/Multiplexed BCD Output ..... \$125

PM-45LU ..... 4.5 digit Red LED, Low Cost Meter w/Differential Input ..... \$90

PM-45LUBCD ..... PM-45LU w/Tri-State Parallel BCD Output **2VDC** (**1.9999**) ..... \$120

PM-45LUMXBCD ..... PM-45LU w/Multiplexed BCD Output, 5VDC pwr ..... \$105

PM-45X ..... 4.5 digit LCD, Precision Meter w/Differential Input **2VDC** (**1.9999**) ..... \$125

PM-45XBCD ..... PM-45X w/Tri-State Parallel BCD Output, 5VDC pwr ..... \$155

PM-45XBCDO ..... BCD Output Board for PM-45X ..... \$40

PM-45XMUXBCD ..... PM-45X w/Multiplexed BCD Output, 5VDC pwr ..... \$140

PM-45XU ..... 4.5 digit LCD, Low Cost Meter **2VDC**, 5VDC pwr (**1.9999**) ..... \$105

PM-45XUBCD ..... PM-45XU w/Tri-State Parallel BCD Output, 5VDC pwr ..... \$135

PM-45XUMXBCD ..... PM-45XU w/Multiplexed BCD Output, 5VDC pwr ..... \$120

RP-3500 ..... Replaced by UM-Series

RP-3500D2 ..... 3.5 digit Red LED Ultra Stable, Differential, **2VDC** std ..... \$135

RP-3500D2BCD ..... RP-3500D2 w/Tri-State Parallel BCD, **2VDC** std ..... \$165

RP-35A ..... 3.5 digit Red LED w/Differential Inputs, **2VDC** std ..... \$79

RP-35AR ..... 3.5 digit Red LED, Autoranging, 200mV/2 VDC ..... \$110

RP-35U ..... 3.5 digit Red LED, Low Cost, **2VDC** std ..... \$69

RP-4500 ..... Replaced by UM-Series

RP-4500D2 ..... 4.5 digit Red LED Ultra Stable, Differential, **2VDC** std ..... \$165

RP-4500D2BCD ..... RP-4500D2 w/Tri-State Parallel BCD, **2VDC** std ..... \$200

SM-35 ..... 3.5 digit Red LED, **2/20/200VDC**, 5VDC Pwr ..... \$49

SM-35MV ..... 3.5 digit Red LED, **0.02/0.2/2VDC**, 5VDC Pwr ..... \$69

**Order Code Suffix**      **Description**      **US\$ List**

SM-35X ..... 3.5 digit LCD, **2/20/200VDC**, 5VDC Pwr ..... \$59

SM-35XMV ..... 3.5 digit LCD, **0.02/0.2/2VDC**, 5VDC Pwr ..... \$79

SP-35X ..... 3.5 digit LCD, Signal Powered by DC voltage ..... \$89

SP-35XMV ..... 3.5 digit LCD DCMV Input, 10-100VDC or 18-36VAC pwr ..... \$89

SP-35XRMS ..... 3.5 digit LCD, VAC RMS Signal Pwr, 15.0-199.9VAC/DC ..... \$105

TM-35JC ..... 3.5 digit LED, Type J, °C Thermocouple, 5VDC Pwr ..... \$94

TM-35JF ..... 3.5 digit LED-Type J °F Thermocouple, 5VDC Pwr ..... \$94

TM-35KC ..... 3.5 digit LED-Type K °C Thermocouple, 5VDC Pwr ..... \$94

TM-35KF ..... 3.5 digit LED-Type K °F Thermocouple, 5VDC Pwr ..... \$94

TM-35XJC ..... 3.5 digit LCD-Type J °C Thermocouple, 5VDC Pwr ..... \$104

TM-35XJF ..... 3.5 digit LCD-Type J °F Thermocouple, 5VDC Pwr ..... \$104

TM-35XKC ..... 3.5 digit LCD-Type K °C Thermocouple, 5VDC Pwr ..... \$104

TM-35XKF ..... 3.5 digit LCD-Type K °F Thermocouple, 5VDC Pwr ..... \$104

UM-35 ..... 3.5 digit Red LED, DCV measure, **2/20V** or **2/200V** (**1.9.9.9.**) ..... \$64

UM-35AC ..... 3.5 digit Red LED, ACV measure, **199.9/500VAC** (**1.9.9.9.**) ..... \$79

UM-35ACI1 ..... 3.5 digit Red LED, ACA measure, 1 A AC (**1.0.0.0.**) ..... \$85

UM-35ACI5 ..... 3.5 digit Red LED, ACA measure, 5 A AC (**1.0.0.0.**) ..... \$85

UM-35CL ..... 3.5 digit Red LED, Process 4-20mA (**1.0.0.0.**) ..... \$72

UM-35CLE ..... 3.5 digit Red LED, Process 4-20mA w/24VDC Exc. (**1.0.0.0.**) ..... \$89

UM-35HZ ..... 3.5 digit Red LED, AC Freq. measure, **199.9/500Hz** (**1.9.9.9.**) ..... \$99

UM-35JC ..... 3.5 digit Red LED, **J** thermocouple in °C, **1° Res. (760°C)** ..... \$95

UM-35JF ..... 3.5 digit Red LED, **J** thermocouple in °F, **1° Res. (1400°F)** ..... \$95

UM-35KC ..... 3.5 digit Red LED, **K** thermocouple in °C, **1° Res. (1260°C)** ..... \$95

UM-35KF ..... 3.5 digit Red LED, **K** thermocouple in °F, **1° Res. (1999°F)** ..... \$95

UM-35MV ..... 3.5 digit Red LED, DCmV measure, **50/100mV** (**1.0.0.0.**) ..... \$75

UM-35P ..... 3.5 digit Red LED, Pressure measure, **10/20mV/V** (**1.0.0.0.**) ..... \$139

UM-35RTD-C ..... 3.5 digit Red LED, Pt. 100Ω, 3 wire in °C, **1° (-190°C to 190°C)** ..... \$95

UM-35RTD-C-1 ..... 3.5 digit Red LED, Pt. 100Ω, 3 wire in °C, **0.1° (-199.9°C to 199.9°C)** ..... \$95

UM-35RTD-F ..... 3.5 digit Red LED, Pt. 100Ω, 3 wire in °F, **1° (-199°F to 1470°F)** ..... \$95

UM-35RTD-F-1 ..... 3.5 digit Red LED, Pt. 100Ω, 3 wire in °F, **0.1° (-199.9°C to 199.9°F)** ..... \$95

UM-40AC ..... 4 digit Red LED, ACV measuring, **700.0VAC** ..... \$109

UM-45 ..... 4.5 digit Red LED, DCV measuring, **2/20/200V** (**1.9.9.9.9.**) ..... \$129

UM-45MV ..... 4.5 digit Red LED, DCmV measure, **50/100/200mV** (**1.0.0.0.0.**) ..... \$135

**Special Options and Accessories**

**► DISPLAY OPTIONS**

**AM-VERT/RED** .Vertical Red (standard) ..... **\$0**

AM-HORZ/RED ..... Horizontal Red LED option ..... \$10

AM-VERT/GRN ..... Vertical Green LED option ..... \$10

AM-HORZ/GRN ..... Horizontal Green LED option ..... \$10

AM-20DOT ..... Dot mode or center zero dot mode for AM-20 only. Specify left or center zero. Includes -100 to +100 center zero faceplate. .... \$10

SM-GREEN ..... Green LED display for SM-35 & SM-35mV meters only ..... \$10

UM-BRIGHT ..... Super bright Red LED display for UM-35 Series meters ..... \$20

UM-BRIGHT4 ..... Super bright Red LED display for UM-45 Series meters ..... \$25

UM-GREEN ..... Green LED display for UM Series meters ..... \$10

UM-GREEN4 ..... Green LED display for UM-45 Series meters ..... \$15

UM-GREEN4.5 ..... Green LED w/Dummy Zero ..... \$25

UM-RED4.5 ..... Red LED w/Dummy Zero ..... \$25

UM-LARGE/RED ..... 0.8" Red LED display for UM-35 Series ..... \$25

UM-LARGE40/R ..... 0.8" Red LED display for UM-40AC ..... \$25

UM-LARGE/GRN ..... 0.8" Green LED display for UM-35 Series ..... \$35

UM-LARGE40/G ..... 0.8" Green LED display for UM-40AC ..... \$35



# Application-Specific Ordering Info

**Order Code Suffix      Description      US\$ List**

► **POWER SUPPLY OPTIONS**

**For UM Series Only**

- VO-DC/ISO . . . . .Isolated Power Supply 9 to 36VDC/12 to 24 VAC . . . . . \$35
- VO-24V . . . . .Isolated transformer 24 VAC . . . . . \$15

**External Power Supply**

- PS-520 . . . . .5VDC Regulated Power Supply, 2A Output . . . . . \$25
- PS-2405 . . . . .24VDC Regulated Power Supply, 0.5A Output . . . . . \$25
- PS-505 . . . . .5V DC Regulated power Supply, 0.5A Output . . . . . \$22
- PS-510 . . . . .5V DC Regulated power Supply, 1A Output . . . . . \$25

► **SPECIAL OPTIONS (Specify Inputs & Req. Reading)**

**Scaling for AM-20**

- VF-0020V . . . . .20VDC Range Change . . . . . \$10
- VF-0200V . . . . .200VDC Range Change . . . . . \$10
- VF-1200V . . . . .1200VDC Range Change . . . . . \$10
- VS-BAR20 . . . . .4-20mA input signal specified required reading . . . . . \$35

**Scaling for CM,SP,TM Series**

- CB-FS35 . . . . .Non-std Range and Scale Changes . . . . . \$10

**Scaling for DVM Series**

- DVM-FSCL . . . . .Special Range & Scale change DVM-5/CL/4-20 . . . . . \$15
- VDVM-200V . . . . .200 VDC Range change for DVM-5 . . . . . \$10
- VDVM-20V . . . . .20 VDC Range change for DVM-5 . . . . . \$10

**Scaling for SM Series**

- HD-CHANGE . . . . .Factory range change for non std ranges, see specific data sheet . . . . . \$7
- CB-FS35 . . . . .Non-std Range and Scale Changes . . . . . \$10
- SM-FSCL . . . . .4-20mA factory scaling for SM-35 only . . . . . \$15
- VO-50K . . . . .Zero offset 50K Pot for SM-35 only, see specific data sheet . . . . . \$5

**Scaling for 3.5 Digit PM and RP Series**

- VA-200MVFI . . . . .200mVDC Range Change . . . . . \$8
- VF-0020V . . . . .20VDC Range Change . . . . . \$10
- VF-0200V . . . . .200VDC Range Change for 3.5 digit PM/RP Series . . . . . \$10
- VF-1200V . . . . .1200VDC Range Change for 3.5 digit PM/RP Series . . . . . \$10
- VS-3.5 . . . . .Non-Std Range and Scale-3.5 Digit PM/RP/UM meters . . . . . \$40

**Scaling for 4.5 Digit PM and RP Series**

- VDA-200MVFI . . . . .200mVDC Range Change . . . . . \$10
- VFA-0020V . . . . .20VDC Range Chg for 4.5 digit PM/RP Series . . . . . \$12
- VFA-0200V . . . . .200VDC Range Chg for 4.5 digit PM/RP Series . . . . . \$12
- VFA-1200V . . . . .1200VDC Range Change for 4.5 digit PM/RP Series . . . . . \$12
- VS-4.5 . . . . .Non-Std Range and Scale - 4.5 Digit PM/RP Meters . . . . . \$50

**Scaling for UM Series**

- HD-CHANGE . . . . .Factory calibrated range change, see specific meter's data sheet . . . . . \$7
- CB-FS35 . . . . .Non-Std Range and Scale changes for UM-35 meters . . . . . \$10
- CB-FS45 . . . . .Non-Std Range and Scale changes for UM-45s . . . . . \$20
- VO-50K . . . . .Zero offset 50K Pot for UM-35 and UM-45 . . . . . \$5
- VRC-DPM . . . . .Range change to 500Hz/1Hz Res & 2/200V DC . . . . . \$10

► **ACCESSORIES**

**Connectors - order separately from meter**

- CN-L10 . . . . .Dual Row 10 Pin Edge Connector, Solder Type, Optional for CM, SP, TM, PM, SM series and AM-20, . . . \$3

- CN-L15 . . . . .Dual Row 15 Pin Edge Connector, Solder Type, Optional for UM, RP, BN series & DD-40HZ . . . . . \$3.75

**Order Code Suffix      Description      US\$ List**

- CN-PUSH/CM . . . . .Push-on Screw Terminal Block Conn. for CM Series . . . \$18
- CN-PUSH/SM . . . . .Push-on Screw Terminal Block Conn. for SM Series . . . \$18
- CN-PUSH/SP . . . . .Push-on Screw Terminal Block Conn. for SP Series . . . \$18

- CN-PUSH/UM . . . . .Push-on Screw Term. Block Conn. for UM Series 120VAC . . . . . \$18
- CN-PUSH/UM01 . . . . .Push-on Screw Term. Block Conn. for UM Series 240VAC . . . . . \$18
- CN-PUSH/UM02 . . . . .Push-on Term. Block Conn. for UM Series 120/240VAC select . . . . . \$18
- CN-PUSH/UM03 . . . . .Push-on Screw Term. Block Conn. for UM Series 24 VAC . . . . . \$18
- CN-PUSH/UM04 . . . . .Push-on Term. Block Conn. for UM Series 9-36VDC/12-24VAC . . . . . \$18

- CN-S13 . . . . .Dual Row 13 Pin Edge Conn to 26 Wire Ribbon Cable . . . \$8

- CN-S15 . . . . .Dual Row 15 Pin Edge Connector, Solder Type . . . . . \$8

- TB-KIT . . . . .Extra Replacement Terminal Block Connector Kit (3) . . . \$1
  - OP-N4SEAL/UM\* . . . . .96x48mm clear lockable front cover—NEMA 4X, splash proof for RP & UM Series (Factory Installed) . . . \$50
- \*Note: Do not expose to alcohol, bleach, ammonia or acetone-based cleaning agents.

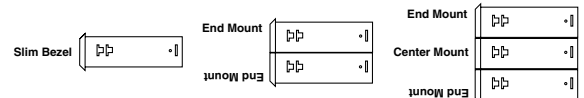
**Custom Faceplates** please see page 42

**Additional Cases and Case Parts for RP and UM Series**

- RP.CASE . . . . .Replacement Case w/Mount Hardware . . . . . \$10
- 75-RPFILTER . . . . .Replacement Red Lense for Red LEDs . . . . . \$2

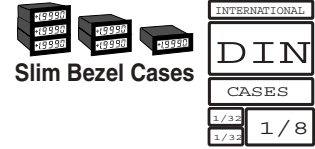
**Additional Cases for AM-20, CM, PM, SM, SP and TM Series**

- SL.CASECLR . . . . .Slim Bezel Case, Clear Faceplate w/Mtg Hrdwre . . . . . \$6
- SL.CASERED . . . . .Slim Bezel Case, Red Faceplate w/Mtg Hrdwre . . . . . \$6
- CM.CASECLR . . . . .Ctr. Mount Case, Clear Faceplate w/Mtg Hrdwre . . . . . \$6.50
- CM.CASERED . . . . .Ctr. Mount Case, Red Faceplate w/Mtg Hardware . . . . . \$6.50
- EM.CASECLR . . . . .End Mount Case, Clear Faceplate w/Mtg Hrdwre . . . . . \$6.50
- EM.CASERED . . . . .End Mount Case, Red Faceplate w/Mtg Hardware . . . . . \$6.50





# Counters, Preset Counters, Totalizers, Timers & Tachometers



## Preset Counters and Totalizers 72X72 mm (2.84X2.84") Case



- 90 to 260 V AC Powered **US\$ List**
- ▶ **TAC-411** . . .4-Digit, 1 Preset Counter . . . . . \$179
  - ▶ **TAC-611** . . .6-Digit, 1 Preset Counter . . . . . \$189
  - ▶ **TAC-422** . . .4-Digit, 2 Preset Counter . . . . . \$219
  - ▶ **TAC-622** . . .6-Digit, 2 Preset Counter . . . . . \$249
  - ▶ **TAC-4114** . .4-Digit, 1 Preset Counter/Totalizer . \$199
  - ▶ **TAC-6116** . .6-Digit, 1 Preset Counter/Totalizer . \$249

## Total Timers 72X36 mm (2.84X1.42") Case



- 90-260 V AC powered, 4 digit, 0.56" LEDs **US\$ List**
- ▶ **TAT-400** . . .0-999.9 sec., or 0-9999 sec./min./hrs. . \$180
  - ▶ **TAT-400A** . .0 to 99.99 sec., or 0 to 99 min. 59 sec., or 0 to 99 hrs. 59 min., or 0 to 99 days 23 hrs. . . . . \$180

## Event Counters and Totalizers Slim Bezel Case



- US\$ List**
- ▶ **PC-45** . . .LED, 4.5 digit, 5V DC Power . . . . . \$55
  - ▶ **PC-45X** . . .High contrast 0.48" LCD version of PC-45 . \$65
  - ▶ **PC-45XAC** .110 V AC pwr version of PC-45X . . . . . \$70

## Preset Timers 72X72 mm (2.84X2.84") Case

90 to 260 V AC powered, 4 digit 0.56" LED, Form C 3 Amp relay **US\$ List**



- TAT-XXX: 0 to 999.9 sec. or 0 to 9999 sec./min./hr.
- ▶ **TAT-411** . . .Single timed output . . . . . \$189
  - ▶ **TAT-421** . . .ON/OFF Recycling . . . . . \$219
  - ▶ **TAT-422** . . .Dual timed output . . . . . \$249
- TAT-XXXX: 0 to 99.99 sec., or 0 to 99 min. 59 sec., or 0 to 99 hrs. 59 min., or 0 to 99 days 23 hrs.
- ▶ **TAT-411A** . . .Single timed output . . . . . \$189
  - ▶ **TAT-421A** . . .ON/OFF Recycling . . . . . \$219
  - ▶ **TAT-422A** . . .Dual timed output . . . . . \$249

## Totalizers 72X36mm (2.84X1.42") Case



- 90-260 V AC Powered **US\$ List**
- ▶ **TAC-300S** . . .3 digit, 0.8" high red LED . . . . . \$140
  - ▶ **TAC-400S** . . .4 digit, 0.56" high red LED . . . . . \$145
  - ▶ **TAC-500S** . . .5 digit, 0.56" high red LED . . . . . \$150
  - ▶ **TAC-600S** . . .6 digit, 0.4" high red LED . . . . . \$155

## Tachometers and Linespeed Meters 72X36 mm Case



- 90 to 260 V AC Powered **US\$ List**
- ▶ **LT-30** . . .3-Digit, 0.8" LED Tachometer . . . . . \$139
  - ▶ **LT-40** . . .4-Digit, 0.56" LED Tachometer . . . . . \$144
  - ▶ **LT-50** . . .5-Digit, 0.56" LED Tachometer . . . . . \$149
  - ▶ **LT-T30** . .3-Digit, 0.8" LED Linespeed/Tachometer . \$154
  - ▶ **LT-T40** . .4-Digit, 0.56" LED Linespeed/Tachometer . \$159
  - ▶ **LT-T50** . .5-Digit, 0.56" LED Linespeed/Tachometer . \$164

## Preset and Flash Timers, 1/16 DIN 48X48 mm (1.89X1.89") Case



Prices range from \$70 to \$110

24 V DC or 24 / 110 / 220 V AC or 90 to 260 V AC powered  
 2 and 3 digit, 0.56" LEDs. Time ranges: . . . . .0.1 sec., .01 sec., 0.1 min.  
 4 digit 0.4" LEDs. Time ranges: . . . . .0.001 sec., 0.01 sec., 0.1 sec., 1sec.  
 0.001 min., 0.01 min., 0.1 min., 1min.  
 99 min. 59 sec., 99 hrs. 59 min.



## Temperature

### DIN Temperature and Process Controllers

US\$ Prices start at

- ▶ **VT-4810** . . . . .1/16 DIN 48x48mm (1.84x1.84") . . \$179
- ▶ **VT-9610** . . . . .1/4 DIN 96x96mm (3.78x3.78") . . \$299



- PID autotune (6 modes of options)
- On/Off with adjustable hysteresis
- Eight selectable thermocouple inputs J, K, T, E, B, R, S, or N
- RTD input 100-ohm platinum RTD
- Selectable °F or °C
- Linear process 4 to 20 mA standard
- Sample rate 4 times per second
- Alarm relay, 12 modes, or timer relay, 4 modes (standard)
- Ramp rate 0.0 to 100 °C/min.
- Ramp, soak, and dwell functions
- Heating or cooling control action
- Power 85-265 V AC



## AC Power

### AC Power Meters



- ▶ **RM-111** . . . . .3-phase, 1 display, amps or volts
  - Optional analog output
  - 4 1/2" switch board meter mounting
- ▶ **RM-110** . . . . .3-phase, 3-display multi-function
  - AC amps, volts, watt, PF, watthour, varhour, Hz, alarms, analog output, serial out
  - 4 1/2" switchboard meter mounting
- ▶ **A2000** . . . . .DIN 144x144 mm (5.69x5.69")
  - Short depth case
  - Multi-Functional power meter
  - AC amps, volts, active reactive and apparent power, power factor, line frequency, active and reactive energy
  - Data logger
  - LON or Profibus DP

CALL FOR  
CATALOG →



# Power Transducers & Signal Transmitters

Competitively  
Priced



## Utility Grade Metal Cases

High Accuracy , High Immunity to External Noise

Wide Selection of Input and Output Range

Type includes:

- DC Voltage/Current
- AC Voltage
- AC Current, single or 3-phase
- Watt/VAR, single or 3-phase
- Watt hour, single or 3-phase
- Watt (active power), single or 3-phase
- VAR (reactive power), single or 3-phase
- Phase angle single or 3-phase
- Frequency
- VAR hour single or 3-phase
- Power factor single or 3-phase
- RTD or Thermocouple
- Frequency to DC/DC frequency

**Part Number Description US\$ List**

### Power Transducers

#### AC Current Transducer

•High accuracy  $\pm 0.2\%$  Rated Output •Input:0-1A/0-5A/0-10A AC •Output:4-20mA/0-20mA/0-10mA/0-5mA/0-1mA or 0-10V/0-5V/1-5V/0-1V/ Option: 0-20mA, 0-12V max. •Power Supply: **AC115/230  $\pm 15\%$**  standard. Option: specify

TA-1	. . . . .1 $\phi$ , average	. . . . . \$ 90-\$215
TA-1T	. . . . .1 $\phi$ , True RMS	. . . . . \$150-\$275
TA-3	. . . . .3 $\phi$ , average	. . . . . \$250-\$375
TA-3T	. . . . .3 $\phi$ , True RMS	. . . . . \$425-\$550
TAN-1	. . . . .1 $\phi$ , average, self-powered, output: 0-1mA DC only	. . . . . \$ 80-\$155
TAN-3	. . . . .3 $\phi$ , average, self-powered, output: 0-1mA DC only	. . . . . \$240-\$315

#### AC Voltage Transducer

•High accuracy  $\pm 0.2\%$  Rated Output. • Input:0-150V/0-300V/0-600V AC.  
•Output:4-20mA/0-20mA/0-10mA/0-5mA/0-1mA or 0-10V/0-5V/1-5V/0-1V/  
Option: 0-20mA, 0-12V max. •Power Supply: **AC115/230  $\pm 15\%$**  standard. Self Powered: output 0-1mA DC only. Option: specify

TV-1	. . . . .1 $\phi$ , average	. . . . . \$ 90-\$170
TV-1T	. . . . .1 $\phi$ , True RMS	. . . . . \$150-\$230
TV-3	. . . . .3 $\phi$ , average	. . . . . \$250-\$330
TV-3T	. . . . .3 $\phi$ , True RMS	. . . . . \$425-\$605

#### Watt and Var Transducers

•High accuracy  $\pm 0.2\%$  Reading,  $\pm 0.1\%$  Rated Output. •Input:120V/240V AC, 5A /600V AC, 10A. •Input Frequency: 50/60Hz  $\pm 3\%$  •DC Output:4-20mA/0-20mA/0-10mA/0-5mA/0-1mA/-10-0-+10mA/-1-0-+1mA or 0-10V/0-5V/1-5V/0-1V / -10-0-+10V/-1-0-+1V/ Option: $\pm 20$ mA,  $\pm 12$ V max.

Power Supply: **AC115/230  $\pm 15\%$ , 50/60Hz** standard, Self Powered and Options

TW-12	. . . . .1 $\phi$ , 2 wires, Watt	. . . . . \$260-\$420
TW-13	. . . . .1 $\phi$ , 3 wires, Watt	. . . . . \$330-\$490
TW-33	. . . . .3 $\phi$ , 3 wires, Watt	. . . . . \$330-\$490
TW-34	. . . . .3 $\phi$ , 4 wires, Watt	. . . . . \$340-\$500
TQ-12	. . . . .1 $\phi$ , 2 wires, Var	. . . . . \$280-\$440
TQ-13	. . . . .1 $\phi$ , 3 wires, Var	. . . . . \$350-\$510
TQ-33	. . . . .3 $\phi$ , 3 wires, Var	. . . . . \$350-\$510
TQ-34	. . . . .3 $\phi$ , 4 wires, Var	. . . . . \$360-\$520
TWQ-12	. . . . .1 $\phi$ , 2 wires, Watt Plus Var	. . . . . \$490-\$650
TWQ-13	. . . . .1 $\phi$ , 3 wires, Watt Plus Var	. . . . . \$520-\$680
TWQ-33	. . . . .3 $\phi$ , 3 wires, Watt Plus Var	. . . . . \$520-\$680
TWQ-34	. . . . .3 $\phi$ , 4 wires, Watt Plus Var	. . . . . \$590-\$750

#### Watt Hour and Var Hour Transducers

•High accuracy  $\pm 0.2\%$  Reading,  $\pm 0.1\%$  Rated Output (WH);  $\pm 0.25\%$  Reading,  $\pm 0.1\%$  Rated Output (VARH). •Input:120V/240V AC, 5A /600V AC, 10A. •Input Frequency: 50/60Hz  $\pm 3\%$  •Frequency Output:1/10 Pulse •Frequency Output Mode: Open collector/Reed relay •Two Frequency Output: Forward+Reverse/Forward Only

**Part Number Description US\$ List**

•DC Output:4-20mA/0-20mA/0-10mA/0-5mA/0-1mA/-10-0-+10mA/-1-0-+1mA or 0-10V/0-5V/1-5V/0-1V/-10-0-+10V/ -1-0-+1V/ Option: $\pm 20$ mA,  $\pm 12$ V max.  
Power Supply: **AC115/230  $\pm 15\%$ , 50/60Hz** standard, Other options available.

TWH-12	. . . . .1 $\phi$ , 2 wires, Watt-Hour	. . . . . \$295-\$455
TWH-13	. . . . .1 $\phi$ , 3 wires, Watt-Hour	. . . . . \$320-\$480
TWH-33	. . . . .3 $\phi$ , 3 wires, Watt-Hour	. . . . . \$320-\$480
TWH-34	. . . . .3 $\phi$ , 4 wires, Watt-Hour	. . . . . \$340-\$500
TQH-12	. . . . .1 $\phi$ , 2 wires, Var-Hour	. . . . . \$295-\$455
TQH-13	. . . . .1 $\phi$ , 3 wires, Var-Hour	. . . . . \$320-\$480
TQH-33	. . . . .3 $\phi$ , 3 wires, Var-Hour	. . . . . \$320-\$480
TQH-34	. . . . .3 $\phi$ , 4 wires, Var-Hour	. . . . . \$340-\$500
TWWH-12	. . . . .1 $\phi$ , 2 wires, Watt-Hour + Watt	. . . . . \$400-\$560
TWWH-13	. . . . .1 $\phi$ , 3 wires, Watt-Hour + Watt	. . . . . \$480-\$640
TWWH-33	. . . . .3 $\phi$ , 3 wires, Watt-Hour + Watt	. . . . . \$480-\$640
TWWH-34	. . . . .3 $\phi$ , 4 wires, Watt-Hour + Watt	. . . . . \$590-\$750
TQQH-12	. . . . .1 $\phi$ , 2 wires, Var-Hour + Var	. . . . . \$400-\$560
TQQH-13	. . . . .1 $\phi$ , 3 wires, Var-Hour + Var	. . . . . \$500-\$660
TQQH-33	. . . . .3 $\phi$ , 3 wires, Var-Hour + Var	. . . . . \$500-\$660
TQQH-34	. . . . .3 $\phi$ , 4 wires, Var-Hour + Var	. . . . . \$620-\$780

#### Power Factor and Phase Angle Transducer

•High accuracy 0.5% FS  $\pm 0.3^\circ$  Rated Output. •Input:30-600VAC, 5A /option.  
•Input Frequency: 50/60Hz  $\pm 3\%$  •DC Output:4-12-20mA/ 1-10-0-+10mA/ -1-0-+1mA or 0-5-10V/-10-0-+10V/-5-0-+5V/1-3-5V/ Option: $\pm 20$ mA, $\pm 12$ V max.  
Power Supply: **AC115/230  $\pm 15\%$ , 50/60Hz** standard, Self Powered or Options

TPF-12	. . . . .1 $\phi$ , 2 wires, Power Factor (COS $\theta$ )	. . . . . \$300-\$460
TPF-33	. . . . .3 $\phi$ , 3 wires, Power Factor (COS $\theta$ )	. . . . . \$320-\$480
TPF-34	. . . . .3 $\phi$ , 4 wires, Power Factor (COS $\theta$ )	. . . . . \$350-\$510
TPA-12	. . . . .1 $\phi$ , 2 wires, Phase Angle	. . . . . \$290-\$450
TPA-33	. . . . .3 $\phi$ , 3 wires, Phase Angle	. . . . . \$300-\$460
TPA-34	. . . . .3 $\phi$ , 4 wires, Phase Angle	. . . . . \$330-\$490

#### Frequency Transducer

•High accuracy  $\pm 0.05\%$  Rated Output. • Input Frequency:45-55Hz/55-65Hz/45-65Hz/0-100Hz/0-1KHz/0-10KHz/Option. •Input Volt: 30-600V/2-200V AC  
•DC Output:4-20mA/0-20mA/0-10mA/0-1mA or 0-10V/0-5V/1-5V/0-1V/ Option:0-20mA,0-12V max. •Power Supply: **AC115/230  $\pm 15\%$ , 50/60 Hz** std. or Options

TF-1	. . . . .Frequency Transducer	. . . . . \$250-\$350
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### Transmitters

► High Isolation DC to DC Signal Transmitter  
**(4000DC to ground for 1 min.) specially designed for Rapid Transit railway system**

•High accuracy  $\pm 0.1\%$  Rated Output. •DC Input: 4-20mA/0-20mA/0-10mA/0-1mA/-10-0-+10mA or 0-10V/0-5V/1-5V/0-1V/-10-0-+10V/  
Option:-250-0-+250mA, -1800-0-+1800V DC.

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# Power Transducers & Signal Transmitters

Part Number	Description	US\$ List	Part Number	Description	US\$ List
<p>•DC Output <b>A</b>: 4-20mA/0-20mA/0-10mA/0-1mA/-10-0-+10mA or 0-10V/0-5V/1-5V/0-1V/-10-0-+10V/ Option: -50-0-+50mA, 0-15V max. •DC Output <b>B</b>: 4-20mA/0-20mA/0-10mA/0-1mA/-10-0-+10mA or 0-10V/0-5V/1-5V/0-1V/-10-0-+10V/ Option: -50-0-+50mA, 0-15V max.</p> <p>Power Supply: <b>AC115/230 ±15%, 50/60Hz</b> standard, Other options available.</p> <p>TD1 . . .DC to DC Isolated Signal Transmitter, Single Output, in Case A . . .\$250-\$375                      TD2 . . .DC to DC Isolated Signal Transmitter, Dual Outputs, in Case B . . .\$325-\$500                      PD1 . . .DC to DC Isolated Signal Transmitter, Single Output, in Case C . . .\$250-\$325</p>			<p>▶ <b>Thermocouple Transmitter</b></p> <p>•High accuracy ±0.25% Full Scale. •Input T/C: J(-200-+760°C)/K(-130-+1370°C)/T(-200-+400°C)/E(-200-+1000°C)/S(0-+1760°C)/R(0-+1760°C)                      •Input Range: ±200°C/0-200°C/0-400°C/0-1000°/ Option:specify                      •DC Output: 4-20mA/0-20mA/0-10mA/0-1mA/-10-0-+10mA or 0-10V/0-5V/1-5V/0-1V/-10-0-+10V / Option:0-20mA, 0-12V max. •Power Supply: <b>AC 115V/230V/ 115-230V (TTC only) ±15%, 50/60Hz</b> standard, Other options: specify.</p> <p>TTC . . .Thermocouple Transmitter, in Case A . . . \$270-\$395                      PTC . . .Thermocouple Transmitter, in Case C . . . \$270-\$395</p>		
<p>▶ <b>RTD Temperature Transmitter</b></p> <p>•High accuracy ±0.25% Full Scale. •Input RTD: PT 100Ω (JIS)/PT 100Ω (DIN)                      •Input Range: ±50°C/0-50°C/0-100°C/0-150°C/0-200°C/ Option: -200-+500°C                      •DC Output: 4-20mA/0-20mA/0-10mA/0-1mA/-10-0-+10mA or 0-10V/0-5V/1-5V/0-1V/-10-0-+10V/ Option:0-20mA, 0-12V max. •Power Supply: <b>AC 115V/230V/ 115-230V (RTD only) ±15%, 50/60Hz</b> standard, Other options available.</p> <p>TRD . . .2 or 3 wires RTD, in Case A . . . \$270-\$395                      PRD . . .2 or 3 wires RTD, in Case C . . . \$270-\$395</p>			<p>▶ <b>Analog to Pulse Converter</b></p> <p>•High accuracy ±0.2% Rated Output. •DC Input: 4-20mA/0-20mA/0-10mA/0-1mA or 0-10V/0-5V/1-5V/0-1V/ Option:0-20mA, 0-12V max.                      •Pulse Output: 1 Pulse/H; 10 Pulse/H; 100 Pulse/H; 0-100Hz; 0-1KHz; 0-10KHz; Option: specify. • Output Mode:Open Collector/ Reed Relay                      Power Supply: <b>AC115/230 ±15%, 50/60Hz</b> standard, Other options:specify.</p> <p>TAF . . .Analog to Pulse Frequency Converter . . . \$250-\$425</p>		

## Current Transformers

To create the correct part number, replace XXX with the \*Primary Current value, adding zeroes in front of current values less than three digits. For example, the part number of a CT-546-XXX with a primary current of 50 Amps would be CT-546-050.

Part Number	Secondary	Part Number	Secondary	*Primary Current	Accuracy	Window Size	US\$ List
CT-635-XXX	1 Amp	CT-546-XXX	5 Amps	10 or 50 Amps	2%	1.10" (27.9mm)	\$35
CT-635-XXX	1 Amp	CT-546-XXX	5 Amps	75, 100, 150, 200 or 250 Amps	1%	1.10" (27.9mm)	\$40
CT-635-XXX	1 Amp	CT-546-XXX	5 Amps	300, 350, 400, 500 or 600 Amps	1%	1.10" (27.9mm)	\$45
CT-LLC-XXX	1 Amp	CT-LLB-XXX	5 Amps	50, 75, 100 or 200 Amps	0.3, 0.6, 1.2%**	1.0" (25.4mm)	\$40**
CT-LLC-XXX	1 Amp	CT-LLB-XXX	5 Amps	250, 300 or 400 Amps	0.3, 0.6, 1.2%**	1.0" (25.4mm)	\$50**
CT-760-XXX	1 Amp	CT-761-XXX	5 Amps	1 or 5 Amps	1%	1.50" (37.9mm)	\$100
CT-760-XXX	1 Amp	CT-761-XXX	5 Amps	10 or 15 Amps	1%	1.50" (37.9mm)	\$90
CT-760-XXX	1 Amp	CT-761-XXX	5 Amps	20 or 25 Amps	1%	1.50" (37.9mm)	\$80
CT-DE1-XXX	1 Amp	CT-DE-XXX	5 Amps	25 or 50 Amps	1.2%	1.50" (37.9mm)	\$40
CT-DE1-XXX	1 Amp	CT-DE-XXX	5 Amps	100, 200, 300 or 400 Amps	1%	1.50" (37.9mm)	\$50
CT-DE1-XXX	1 Amp	CT-DE-XXX	5 Amps	500, 600, 750 or 800 Amps	1%	1.50" (37.9mm)	\$60



AC Amps measurement, select 1 Amp or 5 Amp output and primary current input. One CT is required for each phase.



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## International DIN Analog Meters

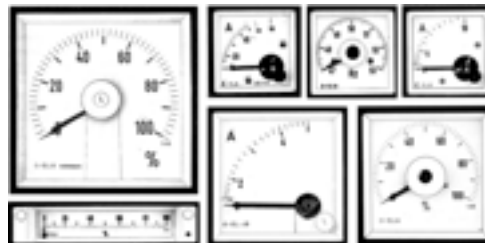


Texmate offers an extensive range of finely crafted Gossen analog meters and meter relays in square and edgewise configurations all of which meet the international DIN 43 700 standard. This world class range of analog meters included moving-coil, moving iron, power factor meters, bimetal ammeters, frequency meters as well as special-application meters. Fax or call for a catalog and pricing information.



Priced From \$50 to \$480

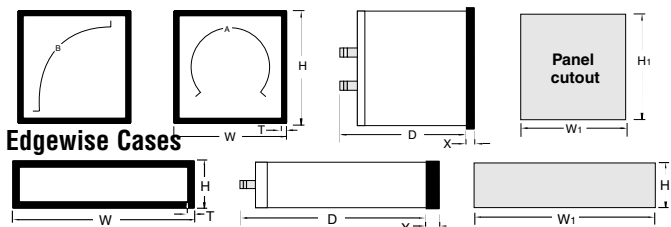
Call for hard to find replacements



Changeable Scales

### Square Cases

Sizes 48mm, 72mm, 96mm and 144mm. Dimension "D" varies with meter type



### Edgewise Cases

### Edgewise Case Dimensions(mm)

Square Case Dimensions (mm)				
	S48	S72	S96	S144
H & W	48	72	96	144
T	3	4	4	5
X	5	5	5	8
H1 & W1	≈45	≈68	≈92	≈138

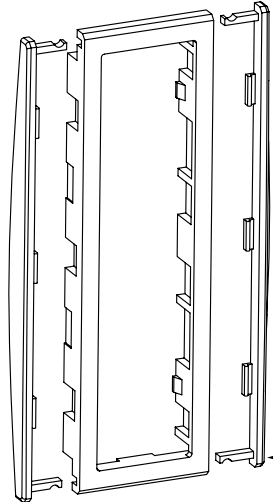
	ES72	ES96	ES144
W	72	96	144
H	36	48	72
T	4	4	5
D	95	120	175
X	5	5	8
W1	≈68	≈92	≈138
H1	≈33	≈45	≈68

**Edgewise Cases**  
 Sizes 72mm, 96mm and 144mm.  
 Horizontal or vertical formats available.  
 Other sizes available, please call.

# Mechanical Analog Meter Replacement

## Panel Adapter Fits 6" Edgewise Pointer Meter Cut-Outs

The adapter snaps on the 36x144 mm (1.42"x5.69") case and enables single unit or stack mounting in an existing 6" edgewise pointer meter cut-out.



### Fits Existing Cut-outs for

- Crompton
- G.E.
- Westinghouse
- Yokogawa
- and most other

### 6" (150 mm) Edgewise switchboard pointer meters

Width: 43.7 mm to 48 mm (1.72" to 1.89")

Height: 143.4 mm to 149 mm (5.62" to 5.88")

Two bezel trim strips are provided with each adapter to finish off the edge of each individually mounted meter or the edge of each stack mounted array.

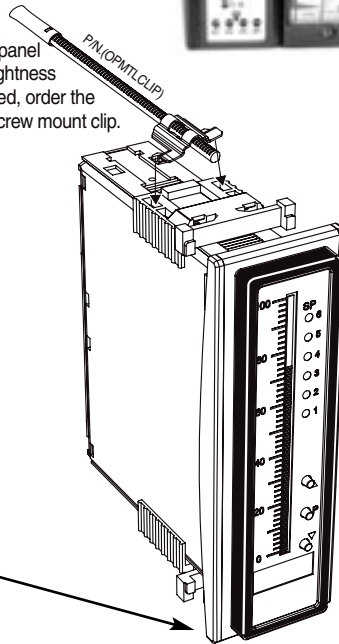
These trim strips match the appearance of the trim strips used with most 6" mechanical meters.

**Panel Adapter**  
Part #: OP-PA/144X36

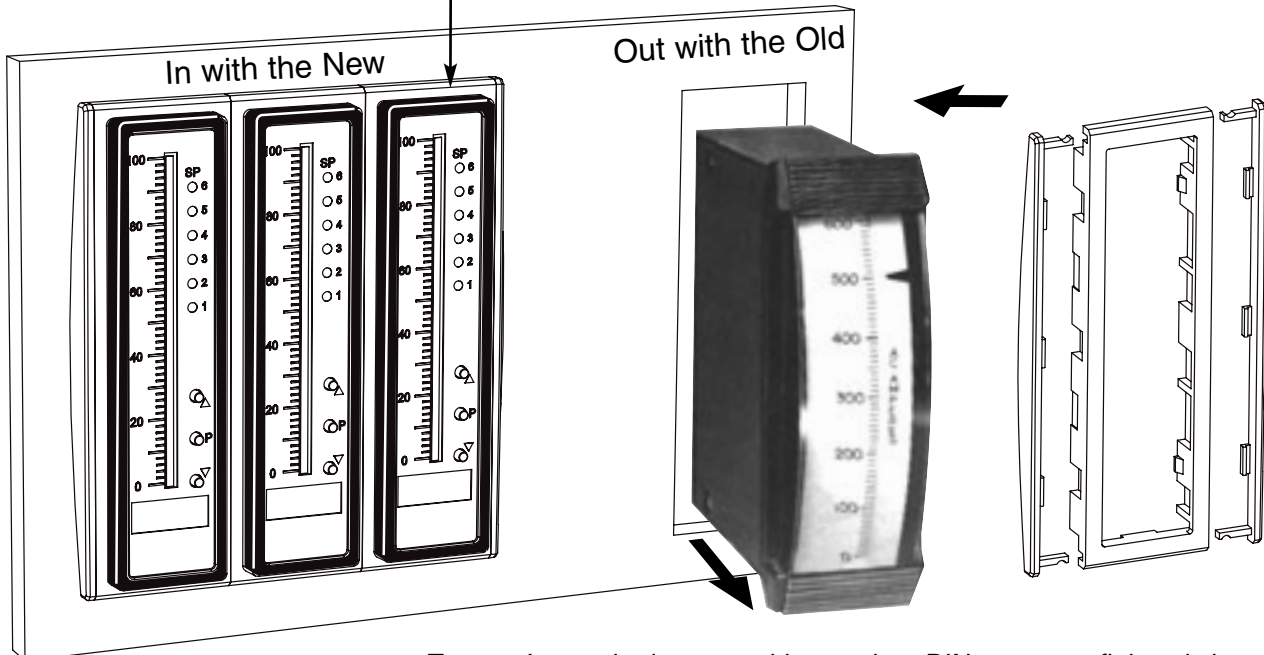
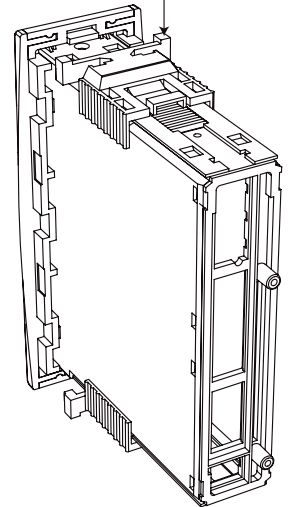


FL-B101Q bargraphs are available with the bar either to the left or right side to match mechanical meters that have left or right sided pointers.

When extra panel mounting tightness is required, order the optional screw mount clip. P/N (OPMTLCLIP)



Adapter uses wide jaw mounting slide clips. P/N (75-DMC14436B)



Texmate's panel adapter enables modern DIN meters to fit in existing cutouts individually or stacked when replacing old 6" edgewise mechanical pointer meters. Choose bargraphs from Tiger, Leopard and Lynx families.

# Terms of Sale\*, Freight and Warranty Policies

## Ordering

- Please specify the complete model number for each instrument and the correct part number for any additional options or accessories required. Be sure to include in your order any connector, or other accessories required, as our minimum order is \$30.00.
- **Phone orders:** 1-800-839-6283, That's 1-800-TEXMATE Ask for Sales Dept.
- **Fax Orders:** 1-760-598-9828
- **Email Orders:** sales@texmate.com
- **Mail Orders:** Texmate, Inc., 995 Park Center Drive, Vista, CA. 92081-8397
- Confirming orders should be clearly marked as such to avoid duplication.
- Purchasing Agents: When placing an order please provide our Sales Dept. with the name and mailing address of the technical person responsible for the requisition. This will enable any updated technical information or bulletins on the product to be distributed promptly to the end user.

## Prices

- Prices are subject to change without notice.
- The minimum order is: \$30.00.
- Shipping and any special handling charges will be added.
- Customers in the states of California and Georgia will have sales taxes added unless a signed sales tax exemption certificate is on file at Texmate.

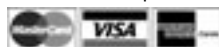
## Quotations

- Prices listed are only in effect at the time of publication. Please consult our Sales Dept. for current prices.
- Verbal quotations expire the same day they are made.
- Written quotations are valid for 30 days.

## Payment Terms

- Payment net 30 days to approved accounts.
- **Quantity discounts are applicable only when payment is received within the month following shipment.** Delinquent accounts will be re-invoiced at the full price prevailing at the time of shipment.
- Customers who do not have an established account may, request shipment to be made C.O.D., pay by credit card, or send remittance with the order.
- New accounts are welcomed and may be processed when credit references are furnished and approved by our Accounting Department.

We Accept



## Order Cancellation & Rescheduling

- Orders can be re-scheduled no less than 45 days prior to the scheduled shipment date.
- Texmate reserves the right to make shipments up to 15 days prior to the scheduled shipment date.

Where a quantity discount price has been granted for blanket purchase orders with scheduled deliveries that remain incomplete, the customer will be required to pay the difference between the price charged and the price applicable to the quantity actually delivered.

- Any order placed and shipped may be cancelled only upon payment of reasonable cancellation charges which shall take into account expenses incurred and commitments made by Texmate, Inc. In any case, the cancellation charge shall not be less than 25% of the outstanding purchase order amount.
- Although Texmate will attempt to meet scheduled delivery dates in good faith, we cannot accept liability for loss or damages caused by late delivery. In the event of any delivery delay, the delivery date shall be extended for whatever length of time as may be reasonably necessary to compensate for the delay.
- No order cancellation for default shall be effective unless and until Texmate shall have failed to correct such alleged default within 45 days after receipt of a written notice specifying such default.

## Shipment

- All products are shipped FOB Vista via U.P.S. or U.S. Postal Service, unless otherwise specified. In all cases, title and responsibility pass to the consignee upon shipment.
- Claims for damaged or lost shipments should be filed promptly by consignee directly with the carrier.
- Packaging is in commercial containers suitable for ensuring safe delivery under normal shipping conditions.
- Claims for short shipments or other discrepancies will not be considered unless Texmate is advised within 48 hours of receipt of the shipment.

## Return of Goods

- Products may only be returned after a return material authorization (RMA) number has been assigned by our Customer Service Dept.
- Include a copy of the original invoice marked with the RMA number.
- Products that have been used, misused, abused, or mistreated, will not be accepted for return or credit.
- **When returning products either under warranty or for repair, please enclose an explanation of the application, the problem incurred, and a schematic of the connection to the meter.**
- Return all items freight prepaid to:  
**Texmate Inc. Attn: RMA# \_\_\_\_\_**  
**995 Park Center Drive, Vista, CA 92081-8397**

## Repairs

- Either during or after the warranty period, Texmate will repair for a flat charge any of its instruments that have suffered non catastrophic damage. Other repairs can be individually quoted.

Product List Price	Repair Charge
\$25 to \$70	\$25.00
\$71 to \$150	\$40.00
\$151 to \$300	\$50.00
Over \$300	Call

## \*Complete Terms and Conditions of Sale

The complete detailed conditions of sale to which you must agree are listed on the rear of Texmate's Sales Acknowledgement, Packing Slips and Invoices.

## 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.

Texmate cannot assume responsibility for any circuitry described. No circuit patent or software licenses are implied. Texmate reserves the right to change circuitry, operating software, specifications, and prices without notice at any time.

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