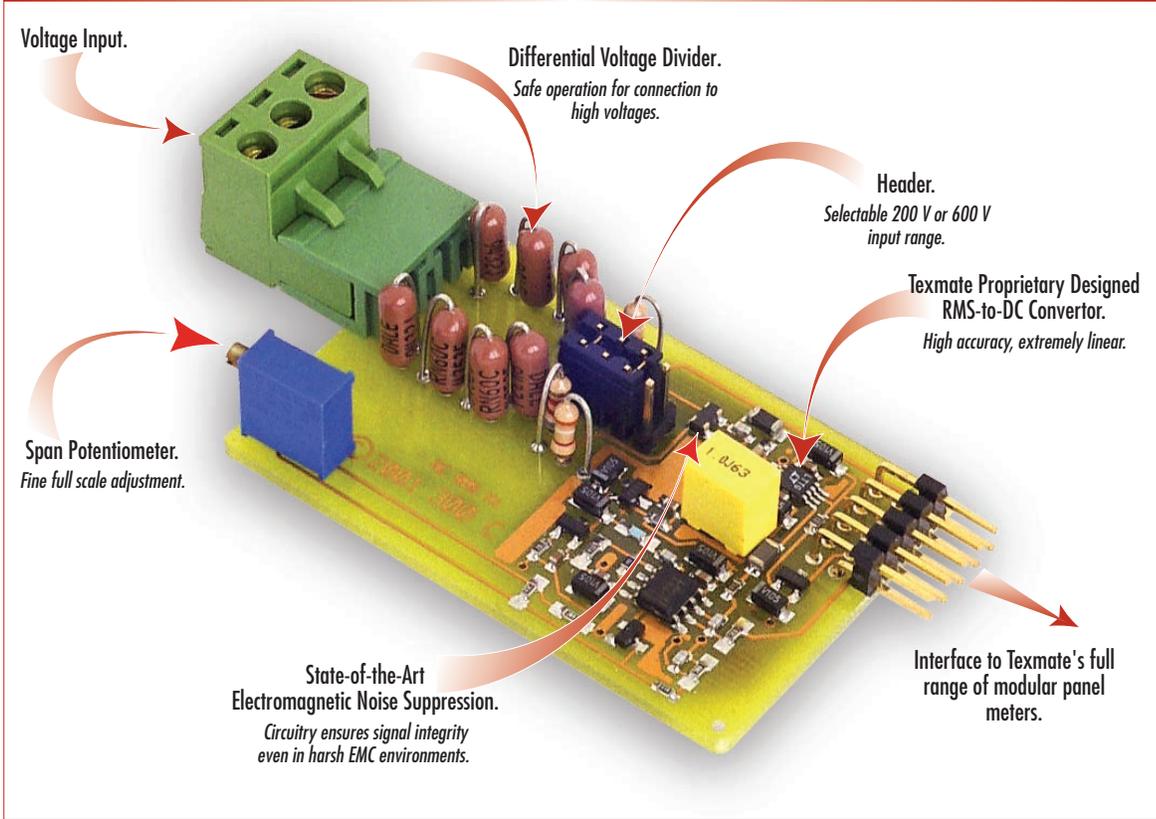


## AC VOLTS TRUE RMS 200/600 V

AC VOLTS TRUE RMS 200/600 V



True RMS voltage measurements for the AC power industry.

The IA06 true RMS input module provides unprecedented linearity over a choice of 200 or 600 volt RMS ranges utilizing the Texmate designed  $\Delta\Sigma$  RMS-to-DC converter circuit block. True differential input and high input impedance  $2M\Omega$  improved RFI/EMI rejection and protection at high input voltages. High linearity means simple system calibration.

**Input Module**  
**Order Code Suffix**  
IA06



Hardware Module Specifications	
Voltage Range	200 V or 600 V RMS, header selectable 0.02 % linearity over full scale.
Frequency Range	0 to 6 KHz, independent of input voltage.
Resolution	1 mV RMS over full scale input.
Accuracy	
Lynx	0.05% of full scale input $\pm$ 2 digit.
Leopard	0.05% of full scale input $\pm$ 2 digit.
Tiger	0.05% of full scale input $\pm$ 1 digit.
Output Signal	Adjustable about 2 V dc for 200 V RMS full scale using SPAN potentiometer.
Span Drift	$\pm$ 50 ppm/ $^{\circ}$ C of full scale maximum.
Meter Interface	Can be utilized in the full Texmate range of modular Lynx indicators, Leopard meter relays, and Tiger controllers.

Some Relevant Operating System Features	
	Direct display of true RMS voltage.
	Setpoint control (Tiger & Leopard).
	Full scale calibration accurate for any sized signal.

INPUTS	
HIGH ACCURACY	★
PROCESS	4 / 20 mA 1 / 5 V
VOLTS AC / DC	
AMPS AC / DC	
WATTS AC / DC	
LOAD-CELL PRESSURE	
FREQUENCY RPM, Pulse, Counter	
TEMPERATURE T/C, RTD	
RESISTANCE	

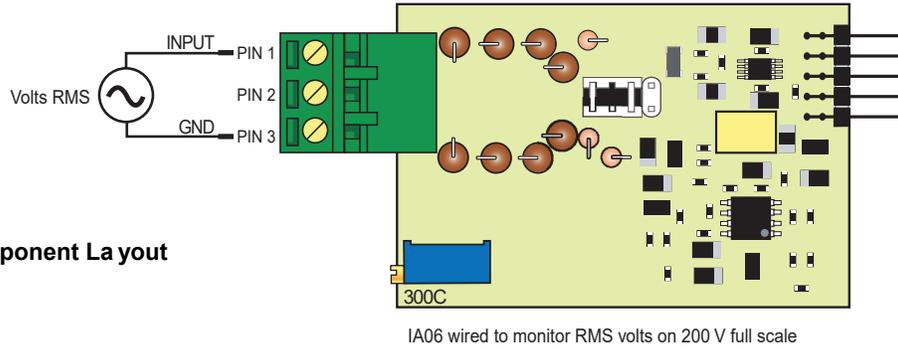


Figure 1 – IA06 Input Module Component Layout

## Description

The AC volts true RMS input module is a universal module designed to function with the Lynx, Leopard, and Tiger range of indicators, meter relays, and programmable meter controllers (PMCs). Commonly used in the 0 to 200 V range, a 0 to 200/600 V range header provides the option to go to a higher voltage.

The IA06 has a differential input with common mode filtering and a voltage divider to attenuate the high input voltage to safe levels. Zero input voltage produces a 0 output signal, meaning no zero adjustment is necessary.

## Tiger Controllers and Leopard Meter Relays



The Tiger and Leopard range use internal software functions to calibrate the span. However, it may be necessary to adjust the span potentiometer to bring the maximum input signal within the full scale range of the instrument.

When the input signal is beyond the full scale range of a Tiger controller, the display flashes [OVER]. When the input signal is beyond the full scale range of a Leopard meter, the top segment of each digit of the display flashes.

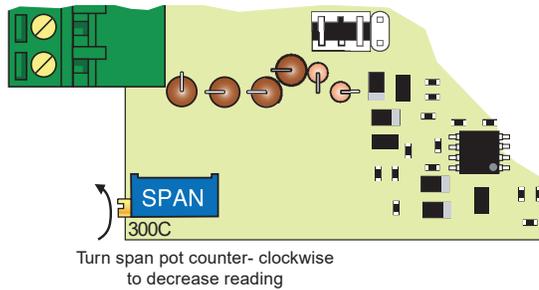


Figure 2 – Span Potentiometer Adjustment

Turn the 15 turn span potentiometer counter-clockwise to decrease the signal until a reading appears on the display (See Figure 2). Now calibrate the instrument using the software calibration method for your instrument.

## Lynx Indicators



The span potentiometer is the only means of calibrating Lynx indicators. When the input signal is beyond the full scale range of a Lynx indicator, a 1 is displayed in the most significant digit (MSD) with all other digits blank. Turn the 15 turn span potentiometer counter-clockwise to decrease the signal until a reading appears on the display (See Figure 2).

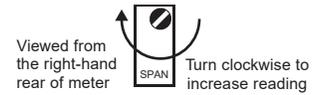


Figure 3 – Span Pot

## Span Potentiometer (Pot)

The 15 turn span potentiometer is located on the right-hand side of the input module (when viewed from the rear of the meter). Typical adjustment is 20% of the input signal range (See Figure 3).

### 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.

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