



DIGITAL PANEL INSTRUMENT FOR THE MEASUREMENT OF HORSEPOWER USING THE SPEED SENSOR INPUT AND TORQUE SIGNAL TO ACCOMPLISH THE ANALOG MATH REQUIRED FOR THE HORSEPOWER READING

Incorporating the Series 3000 performance along with updated setup controls and ease of use features, the Model **3741** HORSEPOWER Panel Instrument interfaces with most AC generated magnetic pickups and other frequency generating sensors to deliver stable - repeatable and accurate results. The 3741 contains a large LED digital display and a dynamic, selectable hi-level analog output signal for front end use with a PLC, Computer or Data Acquisition system. The 3741 incorporates setup controls and adjustments behind the front panel - for the user to configure the meter for any range of AC signal input including trigger level sensitivity, fine zero, wide gain, analog filter settings, voltage signal output selection of ± 5 VDC or ± 10 VDC, and 4-20 mA output, and display trimming. The 3741 mirrors the setup of the 3740 meter with the input torque signal from the 3770 or 3778 meters for DC or AC strain gage sensor.

- True Analog Operation using "Smart Schmitt" trigger amplifier design
- Front and Rear Panel Remote Calibration controls
- Selectable sensitivity for low level detection or rejection of input signal level
- Accommodates grounded or floating input signal sources

You can quickly configure the **3741** via the simple controls located behind the front-panel. Once configured, the user maintains front panel access to the unit's fine Zero, Span and RCAL controls. Independent Display controls can be used to adjust the digital readout separate from the amplified analog output signal.

The **3741** Horsepower meter is based on the "Smart Schmitt" trigger circuitry that is found in all of Daytronic F/V conditioning units. This design offers exceptional low range sensitivity of the input signal which is common with most two wire magnetic pickups. For stability and response, the frequency to voltage signal is routed through the selectable low, medium or high - low pass analog filter circuits and integrated with the analog torque signal.

- regulated, DC excitation ± 12 Vdc @ 50 mA
- sensitivity control to match the signal level of the input
- Accepts any AC or unipolar pulse input, irrespective of waveform
- Input signal source can be grounded or floating
- Accepts analog torque signal via a conditioned input of ± 10 V or ± 5 V to the rear terminals

3741

HORSEPOWER PANEL INSTRUMENT

SPECIFICATIONS

Case: Each unit is housed in a single piece of heavy gage aluminum and contains slide rails for panel mounting

Physical: 2.84" H x 5.68" W x 7.06" D, weight: 3.25 Lbs

Power Requirements: 90-250 VAC, 47-63 Hz @ 10W max

Operating Temperature Range: 0° to +55 ° C

Operating Relative Humidity: 5 to 95% noncondensing

Transducer Types : Any AC or unipolar pulse input, floating or grounded and high level torque signal +/- 5 or 10 V

Input Ranges (Nominal, Full Scale): 250 to 128,000 Hz full scale; 50 mV to 250 V pulse input levels

Analog Output: Selectable +/- 0 to 5; +/- 0 to 10 Vdc and 4 - 20mA. 20% over-range on voltage only outputs

Analog Filters: 2, 8 or 32 Hz low pass (Selectable)
125 Hz low pass, fixed - Fast Output terminal

Excitation: DC Voltage - +/- 12 Vdc @ 50 mA

Accuracy: typical +/- 0.02%, limited only by calibration accuracy

Tare Offset: User enabled rear control. TARE is a 3700 Series Feature - it is not recommended to be utilized in the Model 3740. Activation of TARE may be erratic due to the low frequency instability of the input signal under 500 Hz. TARE maximum is 60% of Full Scale.

Front-Panel TARE Indication :

Un-lit: No TARE has been invoked

Red: Invalid / Error when TARE applied (possible out of range condition)

Green: Valid TARE has been applied

Yellow: In process of applying the TARE command

Logic Input: TARE, Remote Cal and HOLD; common true

Hold Command: Applied and released via logic input

Data Display: 6-Segment Red LEDs; Count by 1,2 or 5 depending on display range settings: maximum count of 199950.

Count by 1 in 5000, 2 in 10000 or 5 in 20000, with dummy zero.

Note: Display contains span controls to adjust display reading independent of the analog output signal.

Wiring: removable screw terminal connectors, provided

Conformity

2014/30/EU Electromagnetic Compatibility

2014/35/EU Low Voltage Safety

ISO 9001:2008 certified



Rear Panel View - screw terminal connectors, provided

