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3778

AC STRAIN GAGE PANEL INSTRUMENT



DIGITAL PANEL INSTRUMENT WITH ANALOG SIGNAL CONDITIONING AND CONTROLS. THE 3778 IS BASED ON YEARS OF FIELD PROVEN PERFORMANCE OF THE SERIES 3000 METERS & ROTARY TORQUE TRANSDUCERS CONDITIONING

Incorporating the Series 3000 performance along with updated controls and ease of use features, the Model **3778** AC Strain Gage Panel Instrument interfaces with most manufacturer's mV/V full bridge sensors which incorporate transformer coupling of the sensor - as in the case of rotary transformer torque sensors. The 3778 delivers a stable, repeatable and accurate result with a digital display and a dynamic, selectable hi-level analog output signal for front end use with a PLC, Computer or Data Acquisition system. The 3778 incorporates setup controls and adjustments behind the front panel for user configuration of the connected full bridge sensor - Excitation Level, Gain, Zero, Analog Filter settings, Voltage Outputs of ± 5 VDC or ± 10 VDC, and 4-20 mA output, Display trimming, Phase and Symmetry. The 3778, with its stable display and selectable amplified signal, includes an independent - high response - analog signal for dynamic applications.

- True Analog Operation using regulated, remote sensed excitation voltage
- + CAL, - CAL and TARE controls for ease of calibration and commanded analog "zero" capability
- Selectable gain from 0.5 to 5.0 mV/V with wide zero control
- Slow, Medium and Fast amplified analog output response filter - selectable for the application

You can quickly setup the **3778** via the simple controls located behind the front-panel. Once configured, the user maintains front panel access to the unit's fine Zero and Span controls along with +Cal and -CAL shunt controls for reference calibration of the sensor's span. For large offset or quick "zeroing"... Front or Rear panel TARE controls can be used to Zero the Display and the amplified analog output signal.

The **3778** conditioner is based on the proven analog design by Daytronic's legacy products which always feature exceptional readability of the display and the true, stable analog output signal for dependable acquisition.

Exceptional signal stability and accuracy over the entire input range are achieved through:

- regulated, remote sensed AC excitation
- precise linearity, phase and symmetry correction
- wide zero and span controls to accommodate practically any type or manufacture's AC mV/V sensors
- Front panel Analog TARE and shunt calibration control with internal or external shunt value
- "Hardware" operation, no computer or software configuration required.

MODEL 3778

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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: Virtually any AC, full bridge, mV/V transducer, including 4, 5 or 6-wire sensor with or without integrated shunt resistor (Internal 59K Ohm provided).

Input Ranges (Nominal Full Scale): 0.5 to 5.0 mV/V selectable when configured (Note: The Highest range the unit will accommodate are actual inputs as high as 6 mV/V).

Analog Output: Selectable +/- 0 to 5; +/- 0 to 10 Vdc. 4 - 20 or 4-12-20 mA. 20% over-range on voltage only outputs

Analog Filters: 2, 20, or 200 Hz low pass (Selectable)
1000 Hz low pass, fixed - Fast Output terminal

Excitation: 3.28 or 5.0 KHz, 2.77 VRMS, 70 mA, sensed

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

Tare Offset: User enabled front/ rear control. TARE range - approx. 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 Inputs: TARE, TARE Enable, CAL and HOLD, Common True

Hold Command: Applied and released via logic input

Data Display: 6-Segment Red LEDs; Selectable 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

