

# Strain Gauge MEASUREMENT AMPLIFIER

## Model TS621

The TS621 Electronic Strain Gauge Amplifier provides outstanding signal conditioning capabilities suitable for use with most strain-gauge-based sensors. It is supplied in a DIN-Rail housing for convenient snap-in installation.

TS621 performance features include galvanic isolation, regulated power supply for the sensor, coarse and fine calibration adjustments, screw terminals for power and analog outputs, with a removable terminal block for the sensor input.

- Designed for use with a wide range of strain-gauge-based *force*, *load* and *tension* sensors
- Provides accuracy of  $\pm 0.1\%$
- *Galvanic Isolation* minimizes the chance for signal interference, including ground faults
- Operating input power supply of 19–36 VDC, non-regulated
- Includes excellent overload and reverse-polarity protection
- Provides a well-regulated power supply of 10 VDC for sensor
- 0–10VDC analog output
- A second optional output is offered providing:
  - *Current* output of 4–20mA or 0–20 mA (option A)
  - *Amplified* voltage output of 2X, 3X, 4X or 5X amplification (option X)
  - *Damped* voltage output minimizing tension fluctuations (option D)



## SPECIFICATIONS

<b>Sensor Types</b>	Strain Gauge, full bridge
<b>Impedance Range</b>	170 to 500 Ohms
<b>Overall Accuracy</b>	0.1% (any portion of the range)
<b>Power Source Required</b>	19 to 36 VDC (24 VDC, typical)
<b>Power Supply to Sensor</b>	10 VDC, regulated ( $\pm 5$ VDC referenced to ground)
<b>Calibration Range</b>	38 to 580%
<b>Output from TS621</b>	0–10 VDC (standard)
<b>Optional Outputs</b>	<i>Current</i> (option A), 0–20/4–20 mA, user set <i>Amplified</i> voltage (option X), 2X, 3X, 4X, 5X amplification, user set <i>Damped</i> voltage (option D) at 4 seconds
<b>Isolation between I/O</b>	Galvanic Isolation using integrated DC–DC converter between input power & output signals
<b>Power Consumption</b>	100 mA @ 24 VDC
<b>Operating Temperature</b>	32 to 140 °F (0 to 60 °C)
<b>Temperature Coefficient</b>	< 0.05% per °C
<b>Connector Types</b>	Screw Terminals
<b>Dimensions</b>	3.1" (H) x 1" (W) x 3.7" (D) (80 x 25 x 95mm)
<b>Weight</b>	4 ounces (100 grams)
<b>Mounting Style</b>	DIN-Rail Snap-In Installation (DIN-rail not provided)

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