

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

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