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 ±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**: Current (option A), 0–20/4–20 mA, user set
  - Amplified voltage (option X), 2X, 3X, 4X, 5X amplification, user set
  - Damped voltage (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)