



Signal conditioning

STRAIN

UNIVERSAL STRAIN GAUGE TRANSMITTER



- Isolated Bridge Excitation Voltage
- User configurable Isolated Output
- Universal 110/240 Vac Supply or 24Vdc supply option
- 1500V 3-Port Isolation
- Dual output version available

Description

The STRAIN Universal Strain Gauge transmitter is suitable for use with the majority of strain gauges, load cells and pressure transducers. The unit provides a high stability excitation voltage which is isolated from both the high level output and the power supply.

Front panel push buttons allow non-interactive adjustment of the output zero and span settings. This is especially useful for the initial calibration and set-up of the bridge and measuring system.

The output required may be user-reconfigurable using internal switches or requested at point of order. The options include 0-10V dc, 0-20mA and 4-20mA. It has two power supply options, operating either from a 12 to 36Vdc supply or 90 to 264Vac supply.

The unit is housed in a compact 12.5mm DIN rail mounting enclosure.

General specifications

Recommended operating Conditions

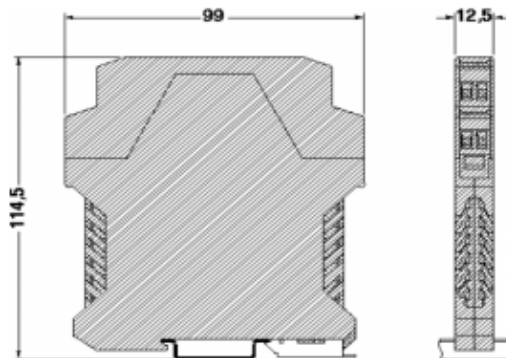
Bridge Supply Current	28mA into 350Ω
Bridge Excitation Voltage	10 Vdc, others available
Output Resistance	0-750Ω for mA o/p

Environment Conditions

Storage Temperature	-40 to 100 °C
Operating Ambient	0 to 55 °C
Relative Humidity	0-90% RH



Technical Specifications				
Parameter	Min	Typ	Max	Comments
Supply Voltage AC Version		90-264Vac		Specify -3
Supply Current AC Version		50 / 25 mA		Upscale Output
Supply Voltage DC Version	12Vdc	24Vdc	36Vdc	Specify -6
Supply Current DC Version		45mA		Upscale output
Bridge Excitation Voltage		10Vdc		Others Available.
Bridge Output Signal	1mV/V	4mV/V		Others Available
Output Linearity Error			±0.1%	
Temp Coefficient		±100ppm/°C		
Load Resistance Error			-10ppm/Ω	0 < R _L < 600Ω
Time Constant (10-90%)		30ms		
Operating Ambient	-15°C		60°C	
Relative Humidity	0%		90%	
Isolation Voltage	1kV			Signal input to output and power supply
Surge Voltage	2.5kV for 50μS		Transient of 10kV/μS	
Notes	<p>Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur. Device is protected against reverse polarity connection.</p> <p>Accuracy figures based on an ambient temperature of 20°C. Device incorporates a non-resettable thermal cut-out in the mains input.</p> <p>IMPORTANT: Mains input should be protected by a 100mA anti-surge fuse (T100mA) with a voltage rating of 250Vac and a breaking capacity of 35A at 250Vac placed in series with the live connector.</p>			



Installation data	
Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 95g

Connection details	
1.	Power -ve
2.	Power +ve
4.	mV input -ve 10. Output -ve
5.	mV input +ve 12. Output +ve
3.	+ve Excitation Voltage
6.	-ve Excitation Voltage

Ordering information	
Please supply:	
Part Number:	STRAIN - 6 or -3
Power Supply:	-3 for 90-264 Vac
	-6 for 12-36 Vdc
Bridge Excitation:	e.g. 10Vdc
Bridge Output Signal:	e.g. 4mV/V
Output Type:	e.g. mA, Volt
Output Range:	e.g. 4-20mA, 0-10V
Dual Output Unit	STRAIN-DUAL-6 or -3