SGAMP

4-Channel Strain Gauge Amplifier

Compact 4-channel strain bridge amplifier and filter

The BES SGAMP unit is designed to amplify and to filter signals of strain gauges sensors and provide the signals in form of output voltage or 0 .. 20mA current to external data acquisition systems. Each channel consists of a low noise amplifier, 5-th order low pass anti-alias filter and strain bridge excitation network.

The amplifier can work with full and half-bridge strain sensors without any additional components. It can accept quarter-bridge inputs with completion resistors, one for each channel.

All settings, including gain, zero-shift, input mode and filter cut-off frequency, are set by dip switches, which are easily accessible via a hinged transparent panel at the top of the unit. There are also 4 red LED indicators, one for each channel, which are clearly visible through the clear panel . The indicator signals activate in a case of input overloaded, broken cable condition or a short connection in a bridge excitation line.

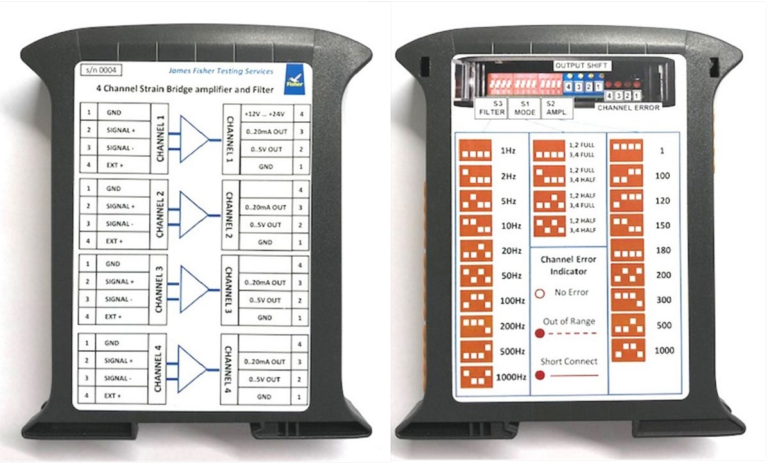
External connections are made via screw terminals in plug-gable connectors. The housing is designed for standard DIN -rail attachment.

Specification

SGAMPStrain gauge amplifier and filter	
Supply Voltage	7 … 32V DC
Reverse Polarity Protection	- 40V
Bridge Resistance	350 Ω min
Bridge Excitation	+5V
Bridge Configuration	Full/Half and Quarter
Gain Range	1, 100, 120, 150, 180, 200, 300, 500, 1000
Filter Cut-Off Frequencies	1, 2, 5, 10, 20, 50, 100, 200, 500, 1000 Hz
Input Noise (0.1Hz to 10Hz)	0.4μV_{P-P}
Linearity	0.1%FS
Voltage output	0.25 … 4.75V
Current Output	0 … 20 mA
Operating Temperature	-40°C to +60°C
Dimensions	Length: 101 mm Width: 22.5 mm Height: 120 mm
Weight	Approx 100g

Features and Benefits

- Wide power supply range
- Screw terminal connector blocks
- DIN rail fitting
- Channel error indicator LED's
- Voltage or current output
- Full, half or quarter bridge



T: +44 (0) 01761 408950 **E:** enquiries@strainstall.com **W:** www.https://assetreliability.britishengineeringservices.co.uk