



# JF-SGAMP

## 4-Channel Strain Gauge Amplifier



### A compact 4-channel strain bridge amplifier and filter

The James Fisher Straininstall **JF-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 pluggable connectors. The housing is designed for standard DIN-rail attachment.

### Features and Benefits

- **Plug-in Connectors**
- **Wide power supply range**
- **DIN rail fitting**
- **Channel error indicator LED's**
- **Voltage or current output**
- **Full, half or quarter bridge sensors**

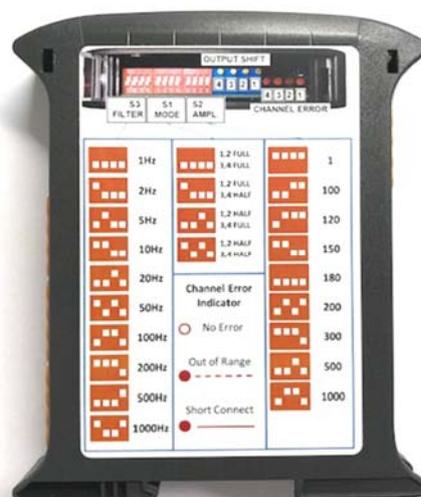
### Specification

#### JF-SGAMP Strain gauge amplifier and filter

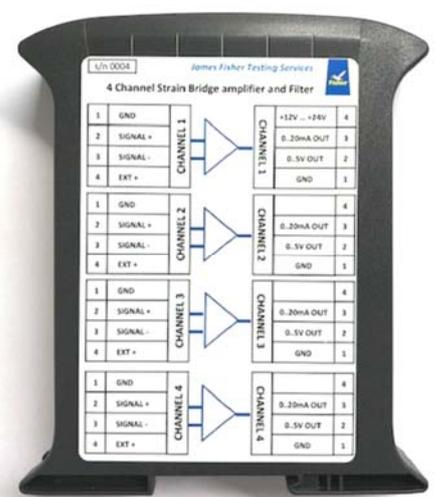
Supply Voltage	7 ... 32V DC
Reverse Polarity Protection	- 40V
Bridge Resistance	350 Ω min
Bridge Excitation	+5V
Gain Range	1, 100, 120, 150, 180, 200, 300, 500, 1000
Filter Cut-Off Frequencies	1, 2, 5, 10, 20, 50, 100, 200, 500, 1000 Hz
Input Noise (0.1Hz to 10Hz)	0.4μV <sub>p-p</sub>
Linearity	0.1%FS
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



Unit settings dip switches and indicator LED's



Unit setting info



Chanel wiring diagram