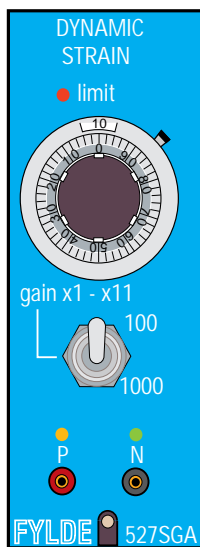


FE-527-SGA DYNAMIC STRAIN GAUGE AMPLIFIER



The FE-527-SGA is a high gain differential amplifier designed for use with a single resistive gauge or a resistive bridge configuration.

The A.C. coupling provides a dynamic signal with the D.C. level of any standing signal removed. Bridge balancing is not required.

The FE-527-SGA energises a remote strain gauge with an exact constant current allowing long twisted pair cables to be used and providing immunity from long term effects such as temperature variation.

The module carries 3 pole active filter which may be set by a plug in resistor network.

The front panel gain controls allow gain to be precisely set over a wide range.

There is front panel indication of gauge current so that the integrity of the cable connection is displayed. Any signal excursions which cannot be followed by the amplifier at the selected gain are also indicated on the front panel.

Amplifier input is protected against excessive normal or common mode voltages and against short circuit.

Power requirement is 200-250V AC or alternatively 100-120 V AC. 12V D.C. powered modules are also available.

The module is mechanically and electrically compatible with other FYLDE modules and with FYLDE 2U racks and instrument cases.

- LOW NOISE
- CONSTANT CURRENT SUPPLY
- SINGLE TWISTED PAIR CONNECTION
- OPERATES FROM 1Hz TO 50kHz
- CONFIGURABLE LOW PASS FILTER

FE-527-SGA DYNAMIC STRAIN GAUGE AMPLIFIER**Description**

Utilising an FET instrumentation amplifier, the FE-527-SGA energises a remote strain gauge with an exact constant current. The dynamic signal is AC coupled and precisely amplified. The module carries 3 pole active filter which may be set by a resistor network. Frequency Response extends from 1Hz to >50kHz, and a high input impedance ensures accurate measurements.

Specification**STRAIN GAUGE POWER SUPPLY**

Type	Constant Current
Current Setting	14.28mA (develops 5V in 350)
Impedance	Approximately 70k
Stability	0.05% / °C
Noise	<10nA RMS (equivalent to 1µStrain pk to pk in 350)
Indicators	LED lamps indicate gauge energisation.

AMPLIFIER

Gain Range	x100 to x 11,000 by switch and 10 turn dial setting.
Switch	x 100 and x 1000.
Vernier	x1 to x11 10 turn Vernier dial with lock facility.
Accuracy	0.25%
Stability	<50ppm / °C.
3dB Frequency Response	1Hz to > 50kHz
1% Frequency Response	7Hz to 5kHz
Phase Response	5° leading @ 10Hz 5° lagging @ 500Hz
Phase Match	1° from 10Hz to 1kHz
Output Capability	±10V , ± 5mA
Output Offset	<5mV
Output Impedance	<10

FILTER

Characteristic	Low Pass 3 pole Butterworth
Setting Range	50Hz to 20kHz by plug in resistor network. Factory Set at 200Hz.

ENVIRONMENT

Switch	Printed Circuit Card switch allows Filter IN/OUT setting.
Temperature	0-50°C
Power Requirement	240V 50Hz Mains Standard. 115V Mains to order. 12V Battery powered to order.
Format	Standard Fylde Mini Instrumentation module interchangeable with Mini Amp, Uni Amp etc.
Housing	Compatible with Fylde 2U high instrumentation crates and cases.