Description

A highly integrated, low powered and compact board FE-1001TPA to suit a wide range of transducer and gauge installations. This unit includes ten different gain settings with very precise output amplitude adjustment. Additionally it contains AC/DC coupling with five high pass and five low pass settings allowing for more flexible filtering range.

Specification

Amplifier	1 Channel Amplifier	Low noise Differential AC/DC switchable.
Input	Impedance	>10MΩ differential.
	Signal / Protection	±10V max. / ±25V max continuous.
	CMR	>110 dB (@ x1000 gain).
	CMV	±10V minimum.
	Vos (DC)	T.C. <0.5 μV / °C.
	Noise	<15 μV pk-pk. DC - 180kHz measurement bandwidth.
Gain	Programmable	x1, x2, x5, x10, x20, x50, x100, x200, x500, x1k.
	Accuracy	±0.3% max. T.C.<25 ppm/°C. G >100, -50 ppm ±25ppm.
	Linearity	Better than 0.01% (±10V / 1kHz).
Output	Voltage	Capability ±10V (20V pk-pk) into 2kΩ, 5000pF max.
	Noise	<1 mV pk-pk. DC - 100 kHz measurement bandwidth.
	Drift	<2.5 μV/°C on maximum sensitivity (<0.05%/°C).
AC Coupling	Programmable	DC or AC 200 mHz and 60 mHz -3 dB (low pass filter in).
High Pass Filter	Programmable	5 Hz, 10 Hz, 20 Hz and 50 Hz (-3 dB).
	Type	Butterworth 2 pole (40 dB/decade, -12 dB/octave roll-off).
Low Pass Filter	Programmable	8 kHz, 15 kHz, 40 kHz and 75 kHz (-3 dB).
	Type	Butterworth 4 pole (80 dB/decade, -24 dB/octave roll-off).
Overall	Bandwidth / Slew	DC, <180 kHz -3 dB / 20V/μs typical.
Power Supply	DC	±12V, +3v3, < 20mA.
Communication Protocol		
I2C	Logic Levels	+3v3.
	Clock Frequency	100 kHz.
Physical		
Environment	Temp. Range	-54°C to 95°C operating.
Board Size		53.34 mm x 25.40 mm.