



DESCRIPTION

The BPF205 Band-Pass Filter is a plug-in module for the MC1 Signal-Conditioning System. It provides a selectable frequency pass-band from DC, 10, 20, 50, 100 or 200 Hz to 200, 500, 1k, 2k, 5k or 10 kHz, with a 12 dB per octave rolloff at both the selected low frequency and high frequency ends. An attenuator is provided at the input to permit high noise signals to be applied without exceeding the linear amplifier dynamic range limits of $\pm 10V$ peak. The 0.1X, 1X attenuator is selectable by means of a front panel switch. The output amplifier features an X1, X10 gain selector switch mounted on the front panel. This allows the overall module gain to be normalized for unity.

The output amplifier is capable of 100 mA peak current at 10 volts peak output. The "B" output has provisions for attenuator resistors which enable the user to add a galvanometer damping resistor.

For further conditioning, the output of the BPF205 can be connected by cable to the input of another module, such as the BA112 Buffer Amplifier or the AM49 Integrating Amplifier.

By selecting the DC high-pass position, the unit can be used as a low-gain DC buffer amplifier. A capacitively coupled AC input is also available at the MC1 input connector, which allows operation at high DC bias levels. Pin jacks are located on the front panel for monitoring the input and output signals.

OPTION

Excitation Output: 12 Vdc at 0.5 mA for supplying power to piezoelectric accelerometer impedance converter.

Features

- Unity gain
- Selectable frequency pass-band
- 12 dB per octave rolloff low and high frequency ends
- Switchable input attenuators

Specifications

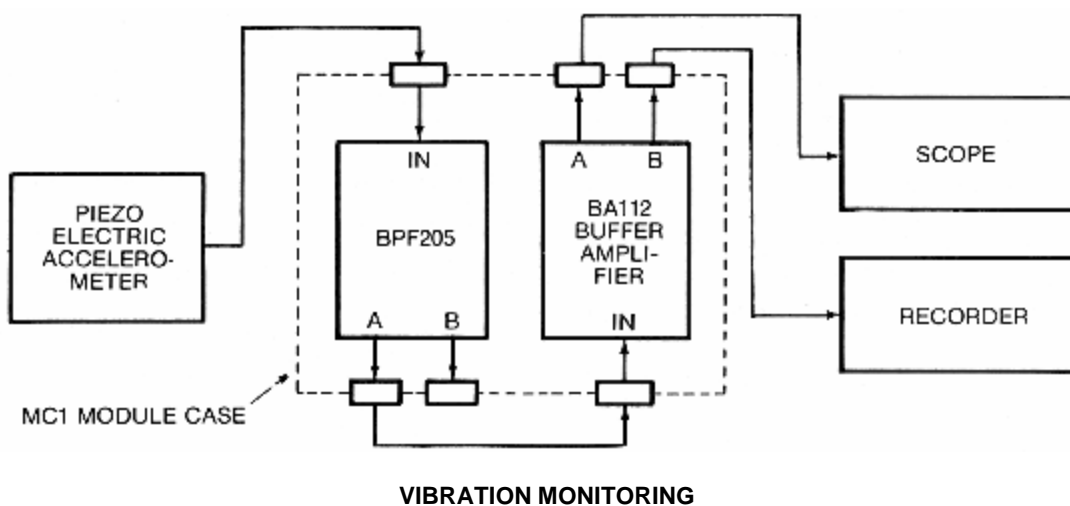
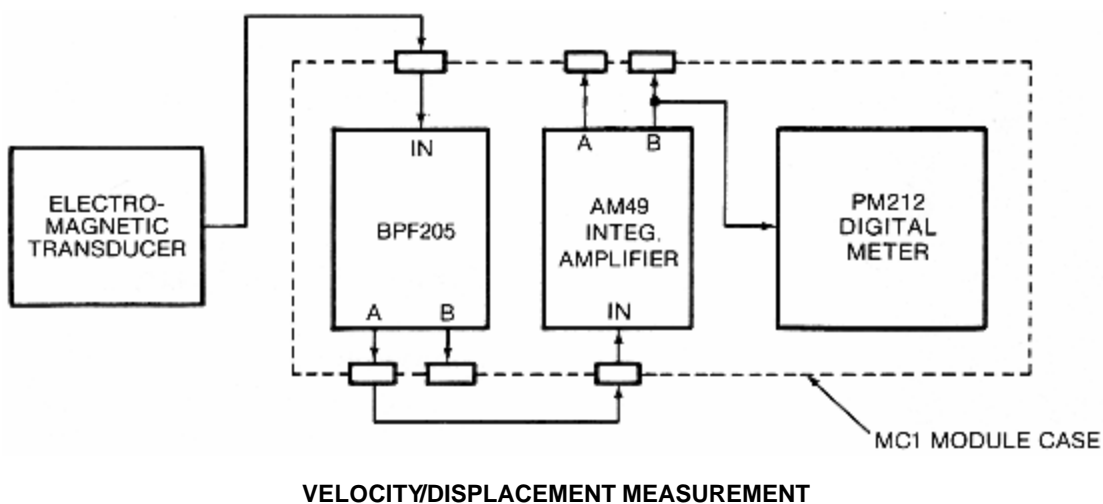
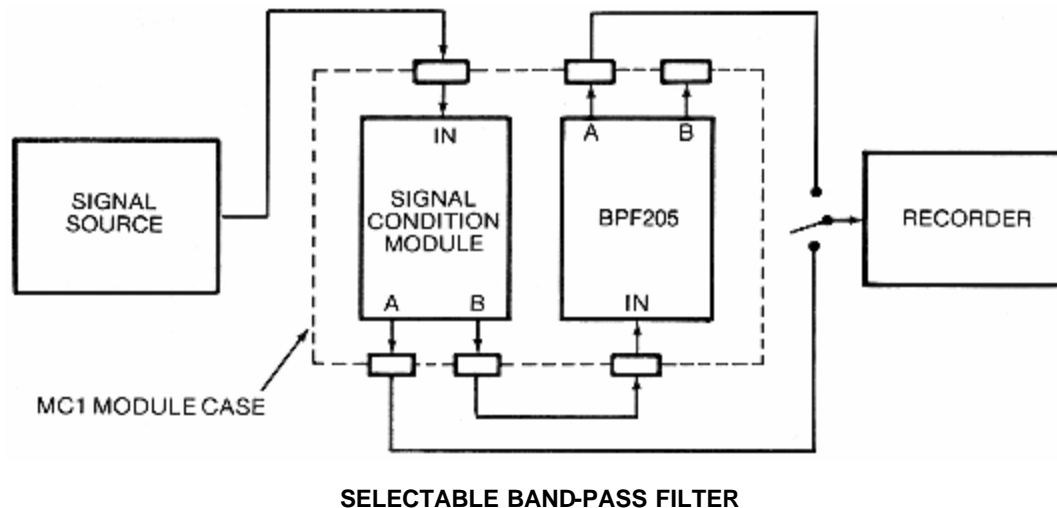
Attenuator Setting	X1	X0.1	Remarks
AC/DC input from MC1 Chassis input, Pins 2 & 4	$\pm 10V$ peak	$\pm 100V$ peak	DC or Band Pass Modes
Max. Input, AC Input from MC1 Chassis Input, Pins 3 & 4	10V peak	100V peak	Frequency Response 8Hz Min.
Max. DC Component of AC Input	100 Vdc	100 Vdc	
Impedance	1 M	90 K	Ohms

Input Attenuator:	X1 or X0.1, selectable by front panel switch
Output Gain:	X1 or X10, selectable by front panel switch
Frequency Response:	Selectable by front panel switches

HIGH PASS	LOW PASS
DC Hz	200 Hz
10 Hz	500 Hz
20 Hz	1 kHz
50 Hz	2 kHz
100 Hz	5 kHz
200 Hz	10 kHz

Output:	0 to 7 Vac rms max, 0 to 100 mA peak; pins 1 & 2 of MC1 output
Output Impedance:	Less than 1.0 ohms, no damage from short circuit
Linearity:	0.1% FS, DC mode
Output Noise:	10 mV rms max
Temperature Range:	0 to 160°F operating
Thermal Zero Shift:	0.005%/°F max, DC mode, X1 gain
Thermal Sensitivity Shift:	0.01%/°F max, DC mode, X1 gain
Power Required:	± 15 Vdc, supplied by MC1 Case
Size:	13/8" x 33/4" panel, plugs into single channel of MC1 Case.

TYPICAL APPLICATIONS



Accessories

P/N 7616-2 Plug-In Module Connection Extender



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