



DESCRIPTION

The PC202 is a plug-in signal conditioner for potentiometric linear or angular position transducers. It provides full range zero adjustment and switch selectable gain steps for full scale output from partial range inputs. Either DC or AC operating modes can be selected. In the DC mode, the amplifier is DC coupled. In the AC mode, the amplifier is AC coupled to allow amplified dynamic measurement from 0.2 to 200 Hz about any DC signal level. A typical application is the measurement of low frequency vibration amplitudes about a static position measured in the DC mode. The PC202 can also be used as a selectable gain AC/DC amplifier by simply changing Internal jumpers, and gain can be increased to as high as X2500 by changing one internal resistor. The transducer excitation in -15 Vdc through a resistive network, balanced to ground with a 5 kohm differential source resistance.

FRONT PANEL CONTROLS & TEST POINTS

Zero Control	to adjust for zero output at any point within the full scale potentiometer range
Gain Switch	to set the desired amplifier gain
Span Control	adjust output from 10 to 110% of the gain setting
AC Mode Switch	two position toggle switch to select AC DC operating mode; AC mode available on all gain settings except X1
In Test Jack	to allow monitoring of input signal during zero adjust
Out Test Jack	to allow monitoring of output signal during setup and calibration
Note:	All switches and controls are screwdriver actuated unless otherwise stated. Test point ground jack is located

Features

- DC Potentiometer Excitation
- Switch Selectable Gain
- DC or AC amplifier operation
- +/-100% zero control

Specifications

Input:	+/-12V maximum; will not be damaged by momentary 115V input.
Input Impedance:	22 megohms
Input Current:	50 nanoamps typical
Potentiometer Resistance:	5k to 10 kohms
Potentiometer Excitation:	15 Vdc balanced to circuit ground, 5 kohm differential source resistance.
Operating Modes:	DC or AC, switch selectable.
Input Gain:	1 to 100, determined by change of one internal resistor.
Output Gain:	X1, X2.5, X5, X10, X25, switch selectable.
Span Control:	Adjustable 10-100% of gain setting.
Zero Control:	Adjustable +/-100% of potentiometer full range.
Output:	+/-10V at 2 mA
Output Impedance:	Less than 10 ohms
Frequency Response:	DC Mode: 0-200 Hz; AC Mode: 0.2 to 200 Hz -db
Operating Temperature:	0 to 150°F; span effect 0.005%/°F, zero effect +/-20µ V/°F.
Power:	+/-15Vdc, 10 mA, from MC170 power supply
Size:	2.76"G x 0.45"W x 7.5"l

INPUT-OUTPUT CONNECTIONS

The plug-in module card can be used in any module position of the Modulo Case, as the case is internally wired to provide the proper operating and excitation voltages to all positions.

Signal input and output connections are made to the terminals or connectors at the rear of the Module Case. Connections should be made in accordance with the installation information in the Instruction Manual.