



## Features

- Low Cost Plug-in Amplifier
- AC or DC Inputs, High Impedance
- Gain to X1000
- +/-10V Output, Low Impedance
- Provides DC Pot Excitation

## DESCRIPTION

The BA214 module provides a single channel AC/DC amplifier with high impedance differential input. The gain can be individually set between X1 to X1000 by changing or installing a single resistor. This gain is further adjustable by a front panel gain vernier. An internal jumper change allows single ended input connection. The module provides a +/- 10Vdc full scale output at low impedance.

The BA214 can also be used as a potentiometric signal conditioner, as up to +/-10 Vdc potentiometer excitation voltage is available from this module.

### FRONT PANEL CONTROLS & TEST POINTS

Gain - to adjust gain from 10% to 110% of selected internal gain

DC Test Jack - to allow monitoring of DC output signal during setup and calibration

NOTE: All controls and adjustments are screwdriver actuated. Ground jack for all test points is on MC170 rear panel.

### INPUT OUTPUT CONNECTIONS

The plug-in module card can be used in any module position of the Module 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.

## Specifications

<b>Input:</b>	±/-12V max; will not be damaged by momentary application of 115V
<b>Gain Selection</b>	<b>Max. Diff. Input</b>
1.0	10V
10.0	1V
100.0	0.1V
1000.0	0.01V
<b>Input Impedance:</b>	22 megohms, each input to circuit ground
<b>Gain:</b>	1-1000 by changing one resistor mounted on bifurcated terminals
<b>Gain Vernier:</b>	Provides 10% -110% adjustment at each gain setting by 20 turn pot +/-10V maximum
<b>Output:</b>	Min. Res. for 10V nominal output: 6k ohms Min. Res. for 1V nominal output: 200 ohms. No damage if output terminals shorted. Less than 10 ohms
<b>Output Impedance:</b>	
<b>Output Filter:</b>	Flat, DC to 200 Hz (Same as BA172).
<b>Offset Voltage Input Bias Current:</b>	Adjustable to zero
<b>Potentiometer Excitation:</b>	20 nA typical each input. Up to 10 Vdc, current limiting for short circuit protection.
<b>Temperature:</b>	<b>Range:</b> 0°F to 150°F <b>Span Shift:</b> 0.005%/°F <b>Zero Shift:</b> +/-20µ V/°F referred to input
<b>Power:</b>	+/-15 Vdc, 6 mA provided by MC170 module case
<b>Size:</b>	2.76"H x 0.45"W x 7.5"D (7.01 x 1.14 x 19.05 cm)