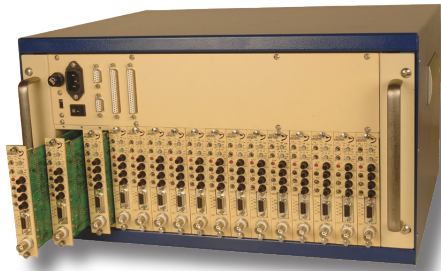




# 9011 Series Amplifiers

Signal Conditioning Amplifiers-Dynamic Strain Amplifiers



## Features:

- Single channel Amplifier
- Remote sense Excitation Voltage
- DC to 220 KHz. ( -3dB ) BW
- Programmable Gain from 1 to 3200
- Option programmable Gain from 1 to 50000
- Multi-segment Low-pass active 4 pole Butterworth standard
- Remote Control Auto Balance
- Option Programmable Bridge Completion and Shunt-Calibration Resistor Module
- Option feet post or screw type connection box convenient wires connect

## Description:

9012 is a high gain differential signal amplifier, possess high bandwidth, auto balance, programmable excitation and low-pass active function.

Showing the measure value on 9001 or 9002 amplifier controller.

Measures micro-signal, resistance type temperature sensor, strain gage and transduce made by strain gage. Example load cell, acceleration, micro-displacement, torque and pressure transducers.

Being auto balance and auto gain function provide measurement efficiency.

Option Programmable Bridge Completion And Shunt-Calibration Resistor Module, support 1/4, 1/2 and full bridge, Shunt-Calibration and 3 wires temperature compensating they all are strain measurement function.

Programmable Select Four-pole low-pass filter let dynamic or static measurement easier.

On BNC connector by 9001 or 9002 controller direct Analogy out.



## 9011 Series Amplifiers

### Specification:

- 9012 Amplifier
  - Temperature effect on zero :  $\pm 1.0\mu\text{V}/^\circ\text{C}$  RTI Max
  - Temperature effect on span :  $\pm 0.05\%/^\circ\text{C}$  max
  - Common-mode rejection : great than 80dB at 50 ~ 60Hz
  - Input impedance : great than 30 M $\Omega$
  - Differential input :  $\pm 20\text{V}$
  - Accuracy :  $\pm 0.1\%$  for G.F. $\geq 1$
  - Programmable Gain : 1 to 50000
- Excitation Voltage
  - Range: 1 to 10  $\pm 0.1\%$  Vdc
  - Noise:  $\leq 1$  mVp-p
  - Remote sense: excitation error less than 0.025%/ $\Omega$  of lead resistance
  - Temperature stability:  $\pm 0.01\%/^\circ\text{C}$
- Remote Control Auto Balance
  - Range:  $\pm 16000\mu\epsilon$  (  $\pm 8\text{mV}/\text{V}$  )
  - Resolution: 1 $\mu\epsilon$
  - Accuracy:  $\pm 6\mu\epsilon$
  - Time: 8 seconds Max
- Frequency Response
  - DC to 220 KHz ( -3dB )
  - Programmable Select Four-pole low-pass filter
  - B.W.: 1 / 10 / 100 / 1K / 10K / 220K ( Hz/AC ), -3dB (  $\pm 2\text{dB}$  )
- Output
  - Provide BNC Connector.
  - Linear output:  $\pm 5.0\text{V}$  Stander, Order 9211
  - Output load: 10 $\Omega$  Max
- Input
  - Provide 9 Pin D Type Connector
- Power Requirement
  - Dual 15Vac  $\pm 10\%$ , 50 or 60 Hz, 15VA Max 9211
  - Dual 12Vac  $\pm 10\%$ , 50 or 60 Hz, 10VA Max 9211-10
- Size
  - 13"  $\times$  1"  $\times$  5.26"
- Weight
  - 600g
- Environmental
  - Temperature: operating  $-10^\circ\text{C} \sim 60^\circ\text{C}$
  - Storage:  $-20^\circ\text{C} \sim 70^\circ\text{C}$
  - Humidity: to 95%
- Option
  - 9011-CA
    - Bridge Completion And Shunt-Calibration Resistor Module.
    - Configuration 2 to 6 wires plus grand-shield to accept 1/4, 1/2, Full bridge strain gages or transducer.
    - Internal 1/2 bridge 120 $\Omega$ , 350 $\Omega$  , 1000 $\Omega$  Completion gages
    - Shunt Calibration
      - Three internal shunt calibration resistors  $\pm 0.01\%$
      - ◆ 120 $\Omega$  Gages: 5000 $\mu\epsilon$
      - ◆ 350 $\Omega$  Gages: 5000 $\mu\epsilon$
      - ◆ 1000 $\Omega$  Gages: 1000 $\mu\epsilon$
  - 900C-MC4XX: xx Feet Post Connection Box
    - Provide 6 Wires Connection
  - 900C-MT4XX : xx Feet Screw Type Connection Box
    - Provide 6 Wires Connection