

Specifications

PART NUMBER

SPEC-AIM6

AIM6 ANALOG INPUT MODULE 6

Input channels: 4, configurable for both strain guage and RTD measurements

Output channels: strain guage excitation voltage and RTD excitation current

Input characteristics:

Gain: x50, x166.6 software selectable for each channel

Input range: x50, $\pm 100\text{mV}$ max
 x166.6, $\pm 30\text{mV}$ max

Accuracy:

Gain: x50, $\pm 0.6\%$ adjustable to 1 lsb
 x166.6, $\pm 0.8\%$ adjustable to 1 lsb

Gain non-linearity: $\pm 0.01\%$ max

Offset: $\pm 150\text{uV}$ max, adjustable to zero (RPI)

Temperature coefficient:

x50, x166.6: $0.0025\%/^{\circ}\text{C}$

Input offset: $\pm 1\text{uV}/^{\circ}\text{C}$

Input noise voltage: 1.5uV p-p, 0.01Hz to 100Hz, $R_s < 1\text{kohm}$

Input bias current: 10nA

Input resistance: 20Mohms

Protection: 130V RMS max normal mode, $f \leq 60\text{Hz}$

Common mode voltage: $\pm 6\text{V}$ peak

Common mode rejection: 94db, $R_s = 100\text{ ohms}$, $f = \leq 60\text{Hz}$, x 166.6

Normal mode rejection: 22db, $f \geq 50\text{Hz}$

Settling time: 0.4 sec to 0.01%

Output characteristics:

Strain guage excitation voltage:

+ 10V nominal, $\pm 10\%$ adjustment span

Output current: 200mA max

Temperature coefficient. $\pm 0.08\%/^{\circ}\text{C}$

RTD excitation current:

0.4mA $\pm 1\%$

Temperature coefficient. $\pm 0.001\%/^{\circ}\text{C}$

RTD mode:

Input range: 0-350 ohms, x50 gain

Measurable temperature span with 100 ohm RTD: -200°C to $+700^{\circ}\text{C}$

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