

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:  $1.5\text{uV}$  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,  $R_s = 100$  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:  
 $+ 10\text{V}$  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:  $-200^{\circ}\text{C}$  to  $+700^{\circ}\text{C}$

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