

SPECIFICATIONS
AIM7 THERMOCOUPLE INPUT MODULE

Input Channels: 16 differential inputs

Input Characteristics:¹

- Range: $\pm 100\text{mV}$, $\times 100$ gain
- Protection: $\pm 15\text{V}$ max. (powered)
 $\pm 10\text{V}$ max. (unpowered)
- Accuracy: $\pm (0.01\% + 10\mu\text{V})$
- Non-linearity: 0.005% of F.S.
- Common mode rejection ratio: $>90\text{db}$, DC to 60Hz
- Bandwidth: 1KHz

\triangle Settling time: $< 2.0\text{msec}$ to 0.01%
Offset TC: $2\mu\text{V}/^\circ\text{C}$ max.

Voltage noise: $1\mu\text{V}$ pp/max, 0.1 to 10Hz
 $2\mu\text{V}$ pp/max, 10Hz to 1KHz

\triangle COMMON MODE INPUT VOLTAGE RANGE: $\pm 10\text{V}$

Temperature Measurement Characteristics:

- Reference Junction Sensor:
- Output: $+100\text{mV}/^\circ\text{C}$
- Accuracy: $\pm 0.25^\circ\text{C}$
- TC: $\pm 0.1^\circ\text{C}/^\circ\text{C}$

Offset from sensor to any terminal: $\pm 0.25^\circ\text{C}$ max.
Offset between any adjacent terminals: $\pm 0.1^\circ\text{C}$ max.

System Resolution:²

- PGA = 2, ADM1 on 0 to 10V range: $12\mu\text{V}/\text{count}$, $0.3^\circ\text{C}/\text{count}$
- PGA = 2, ADM2 on 0 to 10V range: $3\mu\text{V}/\text{count}$, $0.075^\circ\text{C}/\text{count}$
- PGA = 10, ADM2 on -5 to +5V range: $0.6\mu\text{V}/\text{count}$, $0.015^\circ\text{C}/\text{count}$

¹ All amplifier specifications with respect to input.
² Typical resolution, using J, K, or T thermocouple, 0 to $+400^\circ\text{C}$ span (assume $40\mu\text{V}/^\circ\text{C}$).

LTR	REVISIONS	APP.	DATE	DRN. <i>MS</i>	DATE <i>9-26-84</i>	 Keithley Instruments Inc. Cleveland, Ohio 44139
<i>A</i>	<i>10244 RELEASE</i>	<i>MS</i>	<i>10-8-84</i>	CKD.	DATE	
<i>B</i>	<i>UPDATED 10/27</i>	<i>MS</i>	<i>11-18-84</i>	APP.	DATE	
SPECIFICATIONS						PART NUMBER SPEC-AIM7