

myTemp

Analog Input Modes

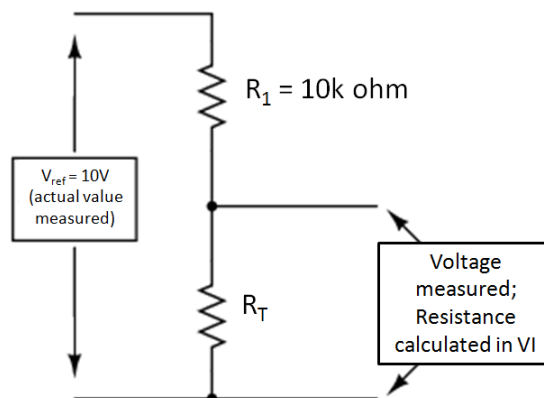
- 1) MUX switch position: 1 reference voltage and 7 thermistor inputs are multiplexed into AI0 and AI1
- 2) AUX switch position: 1 reference voltage and 3 thermistor inputs are multiplexed into AI0 and an auxiliary analog input is read from the small terminal block at the inputs labeled AI1+ and AI1-

Multiplexer Truth Table

	DIO Line Setting (X = Don't Care)					
AI0 Reading	DO0	DO1	DO2	DO5	DO6	DO7
Reference Voltage	0	0	0	X	X	X
T1	1	0	0	X	X	X
T2	0	1	0	X	X	X
T3	1	1	0	X	X	X
AI1 Reading	DO0	DO1	DO2	DO5	DO6	DO7
T4	X	X	X	0	0	0
T5	X	X	X	1	0	0
T6	X	X	X	0	1	0
T7	X	X	X	1	1	0

Thermistor Connections

Thermistor resistance is measured using the voltage divider configuration shown below. The Voltage Reference (V_{ref}) value is read with each reading and that value is used in the resistance calculation.



Additional I/O (available on small terminal block)

Analog Outputs: AO0 and AO1

DIO lines: DIO3 and DIO4

5V supply from myDAQ

GND