

Description

The AD10T2 and AD14T modules provide a single channel of optically-isolated RTD temperature-to-digital conversion with 4,000 V_{rms} of transient isolation. Modules plug into any Standard Analog I/O rack and are secured by a captive screw. Field connections to the modules are made via a terminal on the base of the analog I/O rack and two terminals on the top of the I/O module. The AD10T2 and AD14T modules are suitable for temperature measurements where the RTD probe is grounded or when ground loop currents exist.

Part Numbers	Description
AD10T2	100 Ohm RTD Input Isolated
AD14T	10 Ohm RTD Input Isolated



Specifications

RTD Module Specifications

	AD10T2	AD14T
RTD Input	100 Ω platinum ($\alpha = 0.00385$)	10 Ω copper
Nominal Temperature Range	- 50° C to 350° C	- 55° C to 150° C
Nominal Temperature Range	- 58° F to 662° F	- 67° F to 302° F
Over/Under Range	- 60° C to 812° C	N/A
Over/Under Range	- 140° F to 1493° F	N/A
Accuracy	$\pm 0.4^\circ$ C	$\pm 0.6^\circ$ C
Resolution	12 bits	12 bits
Response Time	full scale step change in 100 ms	full scale step change in 100 ms
Isolation Transient Input-to-Output Input-to-Analog Supply	4,000 Vrms 4,000 Vrms	4,000 Vrms 4,000 Vrms
Temperature Operating	0° C to 70° C - 25° C to 85° C	0° C to 70° C - 25° C to 85° C

Connections

RTD CONNECTION DIAGRAM

