

STANDARD ANALOG RTD INPUTS

Features

- > Single channel of optically isolated RTD temperature-to-digital conversion
- > 4,000 V_{RMS} channel-to-channel isolation

DESCRIPTION

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.

AD10T2 and AD14T modules are suitable for temperature measurements where the RTD probe is grounded or when ground loop currents exist.



AD10T2

Part Numbers

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

SPECIFICATIONS

Features	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	± 0.8 °C	± 0.6 °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	4,000 V _{RMS}	4,000 V _{RMS}
Input-to-Analog Supply	4,000 V _{RMS}	4,000 V _{RMS}
Power Requirements	45 mA at +15 (+/- 0.25) VDC and 45 mA at -15 (+/- 0.25) VDC	35 mA at +15 (+/- 0.25) VDC and 35 mA at -15 (+/- 0.25) VDC
Temperature		
Operating	0 °C to 70 °C - 25 °C to 85	0 °C to 70 °C - 25 °C to 85 °C
Agency Approvals	CE; RoHS; UKCA	CE; RoHS; UKCA

RTD Connection Diagram

