

ADC314X-3-RTD Three Input Temperature Averager

- Suitable for SIL 1 & SIL 2 rated (EN 61508) safety instrumented system (SIS) loop applications, as 1oo1 architecture (HFT:0)
- Non-Smart / Non-uProcessor, Type 'A' instrument
- Supply Voltage options: 24Vdc or 48Vdc ($\pm 10\%$), 115Vac or 230Vac ($\pm 20\%$)
- Amelec Standard 10 year warranty

Input (x 3)

Any 2 or 3 wire PT100 resistance temperature sensor.
Third wire compensation to overcome lead resistance variation.
(PT130 / PT500 / PT1000 & 4 wire input options available)

Typical Input ranges

-15 to +25°C, 0-50°C, 0-100°C, 0-150°C / PT100, 3-wire connection

Output

Any standard process current or voltage in the range of;
Current source up to 22mA max, with drive voltage 12Vdc
(Current Sink option available, 30Vdc max external drive)
Voltage source up to 10V max output
Typically: 4-20mA (max load 550Ω) or 0-10Vdc (min load 500Ω)

Performance

Equation: $\text{Input A} + \text{B} + \text{C} / 3 = \text{Output}$
Accuracy/Linearity: $< \pm 0.1\%$ resistance Span as standard
(Linearisation to temperature 'G' option available)
Response Time: $< 400\text{ms}$
Input over range: up to 300%
Input Open Circuit response: Upscale drive as standard
(Input O/C Downscale drive 'X' option available)
Supply consumption: $< 3\text{VA}$

Environmental Conditions

Storage temperature: -40 to 70°C
Operating ambient: -15 to 55°C
Relative humidity: 5-95 % RH
(Non-condensing)
EMC: 2014/30/EU, EN 61326-1:2013
(Controlled EM)

Isolation

1000V RMS
Inputs/Output/Supply/Earth

Dimensions

152w x 81h x 137d mm

Mounting

Din Rail (TS35)

