

AHT621 RTD Trip Amplifier

- Suitable for SIL 1 & SIL 2 rated (IEC61508) safety system loop applications, as 1oo1 architecture (HFT:0)
- Suitable for 2, 3 or 4 wire resistance temperature sensor
- Supply voltage 21 to 30Vdc
- RFI Protection to IEC61000-4-3:2006/A2:2010 available
- Amelec standard 10 year warranty

TECHNICAL SPECIFICATION

FUNCTION

High Trip: Relay to De-energise on rising temperature.
Low Trip: Relay to De-energise on falling temperature.

INPUT

Any 2 or 3 wire resistance temperature sensor (PT100 RTD) 3rd wire compensation as standard to overcome any lead resistance variation.
(4-wire RTD & PT500 or PT1000 input options also available)

Typical input: 0–100°C / PT100 3-wire RTD connection

TRIP RELAY OUTPUT

The Trip output is a pair of changeover relay contacts DPCO, rated at 250VAC, 3A, 100VA (resistive).

CONTROLS

Zero / Span: 15-turn blindest potentiometers, only fitted when used with a Common Display module.

Trip Set point: 15-turn potentiometer to set Trip point within the input temperature range.

Read buttons: Fitted when used with Common Display module

INDICATOR

Amber Led: power ON indicator
Red Led: Relay Status indicator

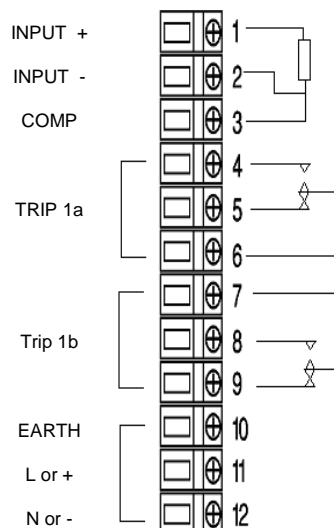
PERFORMANCE

Trip repeatability: < ±0.1%
Response time: Typically <400mS
Trip settability: < ±0.1%
Input O/C Response: Upscale drive as standard

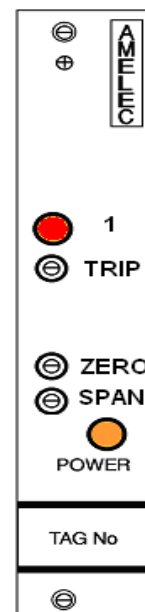
PROTECTION

Isolation 1000V RMS*. Input/Contacts/Supply/Earth
*500VDC if RFI option (K) is specified.
Internal Fuse.
Fail safe on loss of power
Input over range typically at 300%.

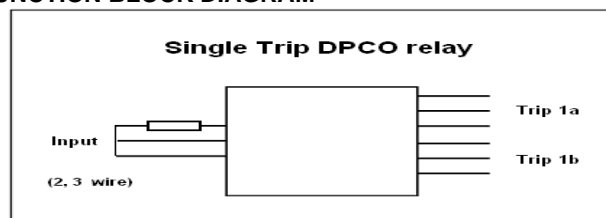
TERMINATION



FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIROMENTAL CONDITION

Storage temperature: - 40 to +70 °C
Operating Ambient: -15 to +55 °C
Relative Humidity: 5 to 95% RH

MOUNTING / DIMENSION

Card: 3U high 4E wide (std single width instrument)
Mounting: 19" rack / 84E wide (See rack GA for details)
Card weight < 200g

ADD ON / OPTIONS

X: Read buttons for local monitoring on Common Display-LCD
X: Input open circuit response Downscale drive
P: Test point on front fascia (Trip set point monitoring)
K: RFI protection to IEC61000-4-3:2006/A2:2010
(20MHz-3GHz/5.25GHz ≤10V/m, 80MHz-1GHz/5.6GHz ≤30V/m)
Tag number/ I.D engraved traffolyte label on front fascia handle
&/or Non standard Power supply ranges also available.