

ADM221KX RTD to RTD &/or Thermocouple Transmitter / Splitter

- Suitable for use in SIL 1 & SIL 2 rated (EN 61508) safety system loop applications, as 1oo1 architecture (HFT: 0)
- Supply voltage options: 115Vac or 230Vac $\pm 20\%$, 24Vdc or 48Vdc $\pm 10\%$.
- RFI Protection to EN 61000-4-3:2006/A2:2010
- Non-Smart / Non-uProcessor based, Type A instrument
- AMELEC Standard 10 year warranty

TECHNICAL SPECIFICATION

INPUT

Any 2/ 3-Wire RTD BS1904, PT100, PT130, PT500, PT1000 with a temp span $\geq 25^{\circ}\text{C}$ may be specified. (nom 0.6mA Exc)

OUTPUT 1 & OUTPUT 2 (may be specified as either the same or different from each other)

Either;

Current: up to 22mA max in std Source configuration (100mA max in optional Sink port configuration)

Voltage: up to 10Vdc max as std.

Typically: 4-20mA (max load 550 Ω) or 0-10Vdc (min load 500 Ω)

Or;

Isolated repeat of the RTD input signal. (Bulb Excitation current derived from existing controller or plc to be confirmed by way of a simple survey if not known)

RTD Extension wire to be used between the output terminals & original control system or device input port.

Or;

Isolated repeat of the input as a Thermocouple signal, with automatic cold junction compensation.

Type J, K, N, R, S or T type T/C's may be specified & the correct type Extension wire is to be used between the output terminals & original control system or device input port.

CONTROLS

15 turn potentiometers for each Output calibration

Zero $\pm 25\%$, Span $\pm 50\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.1\%$ resistance span

Response time: Typically $< 200\text{ms}$

Accuracy: $< \pm 0.1\%$ resistance span

Input O/C response: Upscale drive as std

(O/C response Downscale drive option 'X' available)

Supply consumption: $< 3\text{VA}$

PROTECTION

Isolation: 500Vdc : Input/Output1/Output 2/Supply/Earth

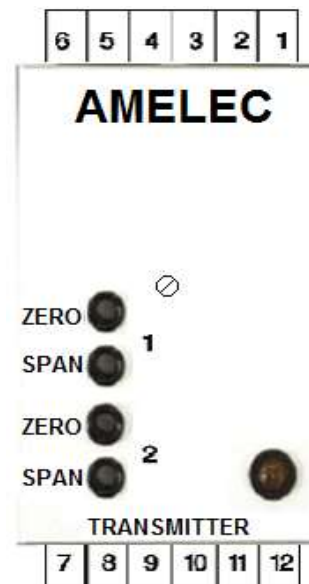
Internal Fuse.

Input over range up to typically 300%.

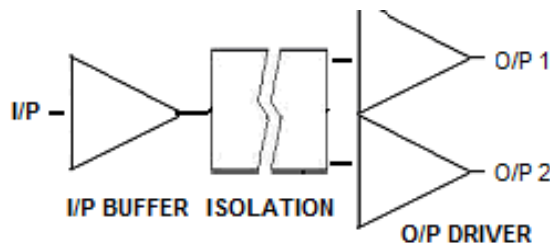
TERMINATION

Input +	1
Input	2
3 rd Wire	3
OUTPUT 1 +	4
OUTPUT 1 -	5
Scn	6
OUTPUT 2 +	7
OUTPUT 2 -	8
Scn	9
Earth	10
Live / +	11
Neutral / -	12

FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITION

Storage temperature: -40 to $+70^{\circ}\text{C}$

Operating Ambient: -15 to $+55^{\circ}\text{C}$

Relative Humidity: 5 to 95% RH (Non-Condensing)

EMC: 2014/30/EU, EN 61326-1:2013 (Generic Industrial Levels)

MOUNTING / DIMENSIONS

Enclosure: 50w x 75h x 182d mm

Mounting: Heavy duty Din Rail (TS35) as standard.

(Surface by Seismic key hole plate option available, rear mounting plate dimensions 50w x 130h mm)

RFI Protection

RF immunity: $< 1\%$ error over 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$ (80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz/1.75GHz $\leq 40\text{V/m}$)