

ADM221XK RTD Signal Transmitter / Splitter

- Suitable for use in SIL 1 & SIL 2 rated (EN 61508-2) safety instrumented system loop applications (1oo1 architecture HFT: 0)
- Supply voltage : Universal 95Vac-250Vac as standard
Other options available: 24Vdc $\pm 10\%$ or 48Vdc $\pm 10\%$
- RFI Protection to EN 61000-4-3:2006/A2:2010
- Non-Smart / Non-uProcessor, Type A instrument
- AMELEC Standard 10 year warranty

TECHNICAL SPECIFICATION

INPUT

Two or Three wire PT100 or PT1000 input ranges may be specified.

Note: Excitation for the RTD is derived from the existing device connected to Output 1.

OUTPUT 1

Non-Isolated straight through connection of RTD input signal.

(RTD extension wire to be used between o/p1 & the original temperature monitoring system/ control device input port)

OUTPUT 2

Current: up to 22mA max in std Source configuration
(100mA max in optional Sink port configuration)
Voltage: any range up to 10Vdc max may be specified as std.

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

CONTROLS

15 turn potentiometers for Output 2
Zero $\pm 25\%$, Span $\pm 50\%$

INDICATOR

Power **ON**: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.1\%$ temperature span
Response time: Typically $< 200\text{ms}$
Accuracy: $< \pm 0.1\%$ temperature span
Supply consumption: $< 3\text{VA}$
Input O/C response: Output 2 drives Upscale as std
(O/C Downscale drive option 'X' available)

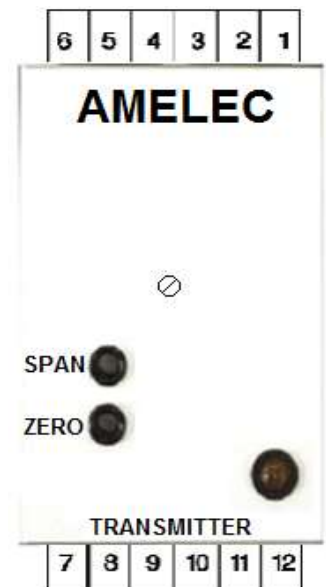
PROTECTION

Isolation: 500Vdc : (Input+Output1)/Output 2/Supply/Earth
Internal Fuse.
Input over range up to typically 300%.

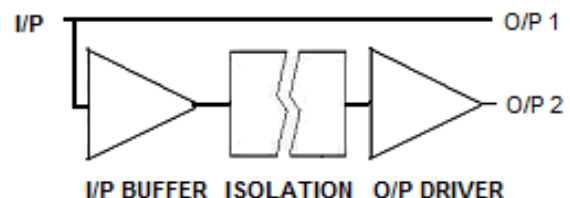
TERMINATION

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

FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITIONS

Storage temperature: - 40 to +70 °C
Operating Ambient: -15 to +55 °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 $\leq 40\text{V/m}$)