

ADM221KX-1X (18-16105) RTD to RTD&4-20mA Transmitter / Splitter / Isolator

- Suitable for use in SIL 1 & SIL 2 rated (EN 61508) safety system loop applications, as 1oo1 architecture (HFT: 0)
- Supply voltage: 24Vdc $\pm 10\%$.
- 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

-50°C to +250°C 2/ 3-Wire RTD BS1904, PT100
(nom 0.6mA Excitation current)

OUTPUT 1;

Isolated repeat of the RTD input signal. (Bulb Excitation currents 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.

OUTPUT 2;

4-20mA in std Source configuration
(max load 550 Ω)

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

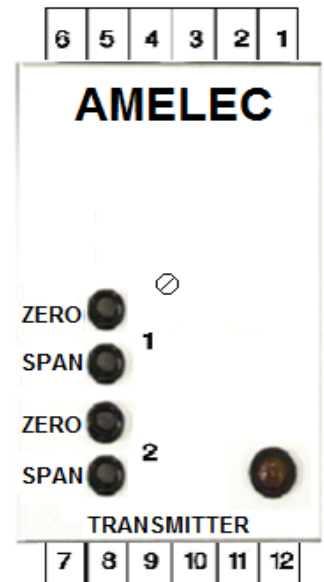
PROTECTION

Isolation: 500Vdc : Input/Output1/Output2/Supply/Earth
Internal Fuse.
Input over range up to typically 300%.

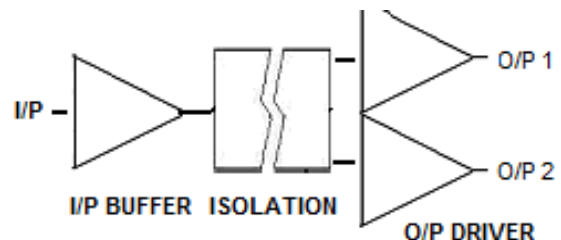
TERMINATION

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
Supply (+ve)	11
Supply (-ve)	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 / DIMENSION

Enclosure: 50w x 75h x 182d mm
Mounting: Heavy duty Din Rail (TS35) as standard.

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 $\leq 40\text{V/m}$)