

## ADM221XK-4W Four-Wire RTD 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

Four wire PT100 or PT1000 input may be specified.  
Note: Excitation for the RTD is derived from the 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 from 0.4 to 10Vdc max as std.

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

#### CONTROLS

15 turn potentiometers for Output 2  
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  
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%.

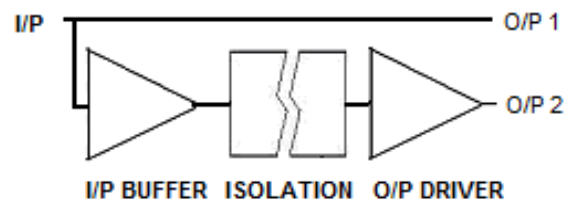
#### TERMINATION

Input + ( R )	1
Input – ( W )	2
3 <sup>rd</sup> wire (I/p R)	3
4 <sup>th</sup> wire (I/p W)	4
OUTPUT 2+	5
OUTPUT 2-	6
Output 1+ ( R )	7
Output 1 – ( W )	8
3 <sup>rd</sup> wire (O/p1 R)	9
4 <sup>th</sup> wire (O/p W)	10
Live / +	11
Neutral / -	12
(Earth stud underside of casing)	

#### FRONT VIEW



#### FUNCTION BLOCK DIAGRAM



#### ENVIRONMENTAL CONDITION

Storage temperature: - 40 to +70 °C  
Operating Ambient: -15 to +55 °C  
Relative Humidity: 5 to 95% RH  
EMC: 2014/30EU, EN 61326-1:2013 (Generic Industrial Levels)

#### MOUNTING / DIMENSION

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