

## ADM210X Thermocouple Repeater with Isolated Output

- Suitable for use in SIL 1 & SIL 2 rated (IEC61508) safety system loop applications (1oo1 architecture, HFT: 0)
- Supply voltage : Universal 95Vac-250Vac as standard  
Other options: 24Vdc  $\pm 10\%$  or 48Vdc  $\pm 10\%$ ,  
115Vac  $\pm 20\%$  or 230Vac  $\pm 20\%$

- Amelec standard 10 year warranty

### APPLICATION

- mV Repeat / Isolated for new additional equipment
- Signal Isolator / Booster / Noise filter
- Signal converter to resolve incompatibility.

### TECHNICAL SPECIFICATION

#### INPUT

mV signal from any Thermocouple type; J, K, N, R, S or T, with a minimum 4mV span.

Typical Input: 0-1000°C Type K, 0-250°C Type J,  
0-600°C Type N, 0-800°C Type R

Automatic cold junction compensation fitted as standard

#### OUTPUT

Isolated straight through repeat of input signal with automatic cold junction compensation.  
(T/C extension wire to be used between output & the temperature monitoring system/control device input port)

### CALIBRATION CONTROLS

Zero / Span (+/- 20%): 15 turn potentiometers for output

### INDICATOR

Power ON: LED, Amber.

### PERFORMANCE

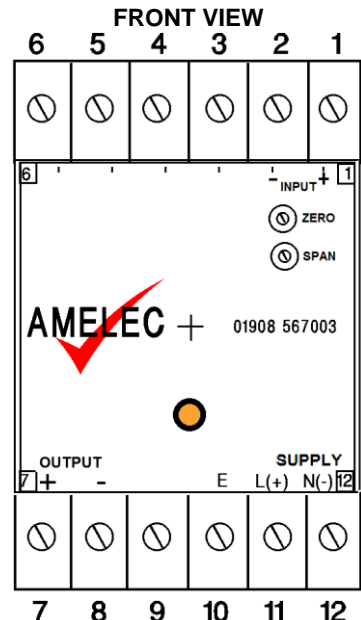
Linearity:  $< \pm 0.2\%$   
Response time: Typically  $< 400\text{ms}$   
Accuracy:  $< \pm 0.1\%$  mV span  
Supply Regulation: DC  $\pm 10\%$ , AC  $\pm 20\%$ ,  
Supply Consumption: 3VA  
Input O/C response: Upscale drive as standard  
(Downscale drive available upon request)

### PROTECTION

Isolation: 1000V RMS\* Input/Output/Supply/Earth  
\*(500Vdc when 'K' option RFI protection is specified)  
Internal Fuse.  
Input over range up to typically 300%.

### TERMINATION

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



### ENVIRONMENTAL CONDITION

Storage temperature: - 40 to +70 °C

Operating Ambient: -15 to +55 °C

Relative Humidity: 5 to 95% RH

### MOUNTING / DIMENSION

Enclosure: 50w x 75h x 110d mm ('K' option = 182d mm)

Mounting: Din rail (TS35) or Surface by corner fixing holes

Weight  $< 300\text{g}$

### ADD ON / OPTIONS

DI: LCD display for local monitoring  
J : Input injection jack socket  
P: Test point  
K: High level of RFI protection: IEC61000-4-3:2006/A2:2010  
(20MHz-3GHz/5.25GHz  $\leq 10\text{V/m}$ , 80MHz-1GHz/5.6GHz  $\leq 30\text{V/m}$ )  
Non standard Power supply & Output ranges available