

ADM211X-TC Thermocouple Repeater / Splitter

- Suitable for use in SIL 1 & SIL 2 rated (EN 61508) safety system loop applications, as1oo1 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
- Non-Smart / Non-uProcessor based, Type A instrument

APPLICATION

- mV Repeat / Signal Splitter 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.

Automatic cold junction compensation fitted as standard

OUTPUT 1

Non-Isolated straight through repeat of input signal with automatic cold junction compensation.
(T/C extension wire to be used between o/p1 & the original temperature monitoring system/control device input port)

OUTPUT 2

Isolated repeat of mV input signal, with automatic cold junction compensation.

(T/C extension wire to be used between o/p2 & the new additional monitoring system/ control device input port)

CALIBRATION CONTROLS

Zero / Span (+/- 20%): 15 turn potentiometers for output 2

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.2\%$
Response time: Typically $< 400\text{ms}$
Accuracy: $< \pm 0.1\%$

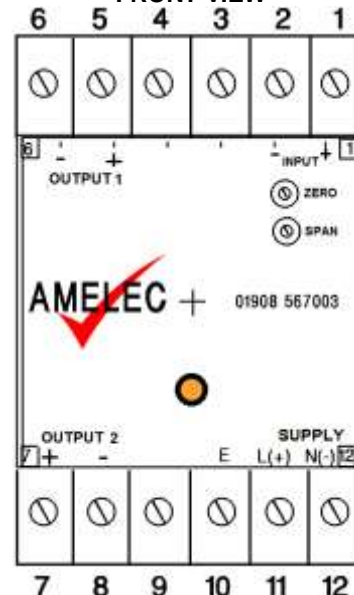
PROTECTION

Isolation: 1000V RMS (Input+Output1)/Output 2/Supply/Earth
Internal Fuse.
Input over range up to typically 300%.

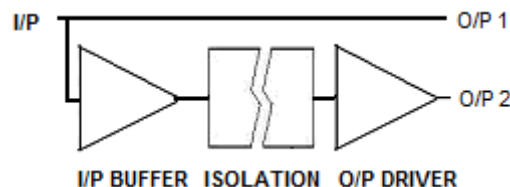
TERMINATION

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

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 (Non-Condensing)
EMC: 2014/30/EU, EN 61326-1:2013 (Controlled EM)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 110d mm
Mounting: Din Rail (TS35) or Surface by corner fixing holes
Weight < 300g

ADD ON / OPTIONS

DI: LCD display for local monitoring
J : Input injection jack socket
P: Test point
K: EMC to highest Generic Industrial levels , including RFI protection to: EN 61000-4-3:2006/A2:2010
(20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$, 80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$)