

## ADM221X RTD Transmitter/Splitter

- Suitable for SIL 1 & SIL 2 rated safety system (EN 61508) loop applications, as 1oo1 architecture (HFT:0)
- Universal AC Supply voltage: 95 to 250Vac as standard
- 24Vdc supply option available on request
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' Option)
- Amelec standard 10 year warranty

### APPLICATION

- RTD Repeat / Splitter
- Signal Isolator / Noise filter
- Signal converter to resolve incompatibility.

### TECHNICAL SPECIFICATION

#### INPUT

Two or Three wire PT100 RTD. Minimum input span 50 °C.

(PT130 / PT1000 RTD options available on request)

**Note:** mA Excitation for the RTD will be from the device connected to output 1.

#### OUTPUT 1

Non-Isolated repeat connection of input RTD signal.

#### OUTPUT 2 (Isolated)

DC current or voltage specified in the range of:  
 Current up to 100mA max in Sink configuration (externally powered)  
 Current up 22mA max Source configuration (Internally powered)  
 Voltage any from 1 to 10Vdc max @ up to 5mA per output.  
 Typical output ranges: 0 - 10Vdc (Min. load 500Ω)  
 4 - 20mA (Max. load 1200Ω)

#### CONTROLS

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

#### INDICATOR

Power ON: LED, Amber.

#### PERFORMANCE

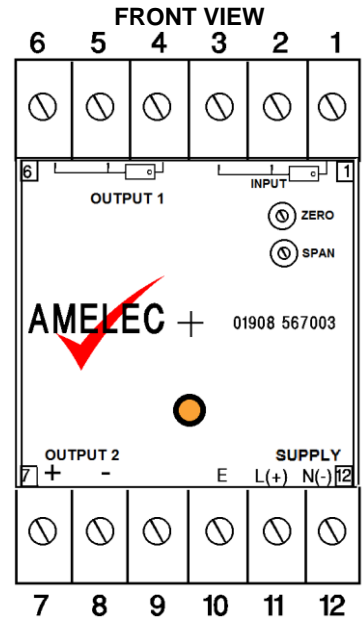
Linearity: < ±0.2%  
 Response time: ≤400mS (0-100% span input step change)  
 Accuracy: < ±0.2%

#### PROTECTION

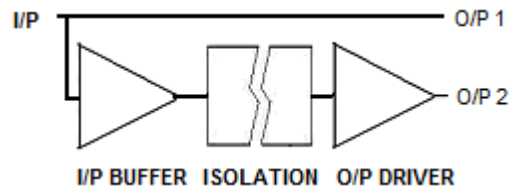
Input open circuit response: Upscale drive as std  
 Isolation: 1000V rms (Input+Output1)/Output 2/Supply/Earth  
 Internal Fuse.  
 Input over range: typically up to 300%.

### TERMINATION

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



### 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 / Surface (optional Panel Mount)  
 Weight < 200g

### ADD ON / OPTIONS

DI: LCD display for local monitoring  
 P: Test point - Output 2  
 K: Higher level of RFI protection (20-1000MHz, ≤30V/m)  
 PT1000: PT1000 RTD input available on request  
 PT130: PT130 RTD input available on request