

ADM221X-3 RTD Signal Transmitter / Splitter

- Suitable for SIL 1 & SIL 2 rated safety system (EN 61508) loop applications, as 1oo1 architecture (HFT:0)
- Universal AC Supply voltage: 115Vac or 230Vac (+/-20%)
- 24Vdc or 48Vdc (+/-10%) supply option available
- 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.

OUTPUTS 2 & 3 (Isolated)

DC current or voltage specified in the range of:
 Current up to 100mA max in Sink configuration (externally powered)
 Current up to 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 500Ω)

CONTROLS

2 x Zero / Span (+/- 20%): 15 turn potentiometers (for outputs 2 & 3 calibration).

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

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

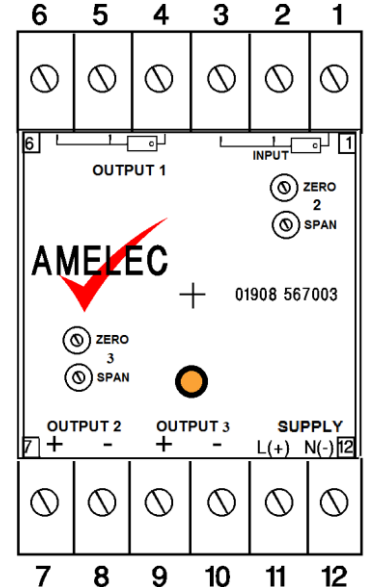
PROTECTION

Input open circuit response: Upscale drive as std
 Isolation: 1000V rms (Input+O/P1) / O/P2 / O/P3 / Supply
 Internal Fuse.
 Input over range: typically up to 300%.

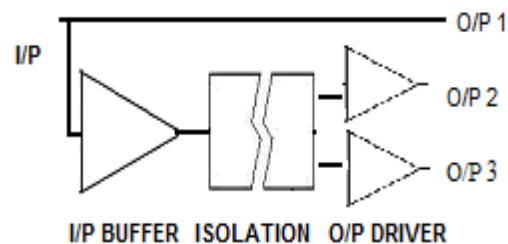
TERMINATION

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

FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIROMENTAL 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 &/or Output 3
 K: Higher level of RFI protection (20-1000MHz, ≤30V/m)
 PT1000: PT1000 RTD input available on request
 PT130: PT130 RTD input available on request