

M-ADM221 RTD Transmitter / Splitter

- Suitable for use in SIL 1 & SIL 2 rated (EN 61508) safety system loop applications, as 1oo1 architecture (HFT: 0)
- Supply voltage options: 115Vac or 230Vac $\pm 20\%$, 24Vdc or 48Vdc $\pm 10\%$.
- RFI Protection to EN 61000-4-3:2006/A2:2010 available
- Non-Smart / Non-uProcessor based, Type A instrument
- Simulated RTD & Thermocouple repeat outputs optional
- AMELEC Standard 10 year warranty

TECHNICAL SPECIFICATION

INPUT

Any 2/ 3-Wire RTD BS1904, PT100, PT130, PT500, PT1000 with a temp span $\geq 25^{\circ}\text{C}$ may be specified. (nom 0.6mA Exc.I)

OUTPUT 1

Current: up to 22mA max in std Source configuration (100mA max in optional Sink port configuration)
Voltage: up to 10Vdc max as std.

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

OUTPUT 2

Current: up to 22mA max in std Source configuration (100mA max in optional Sink port configuration)
Voltage: up to 10Vdc max as std.

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

CONTROLS

15-turn blindest potentiometers for each Output calibration
Zero $\pm 25\%$, Span $\pm 50\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Accuracy/Linearity: $< \pm 0.1\%$ span as std
(Linearisation to high Temperature option 'G' available)
Response time: Typically $< 200\text{ms}$
Input O/C response: Upscale drive as std
(O/C response Downscale drive option 'X' available)
Supply consumption: $< 3\text{VA}$

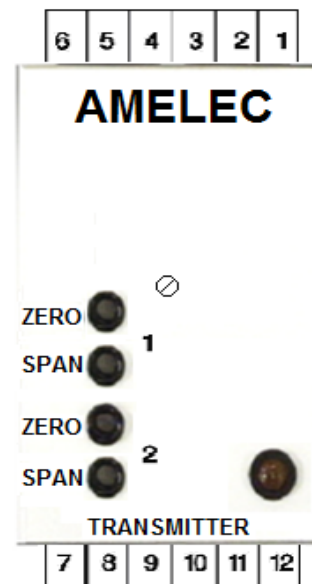
PROTECTION

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

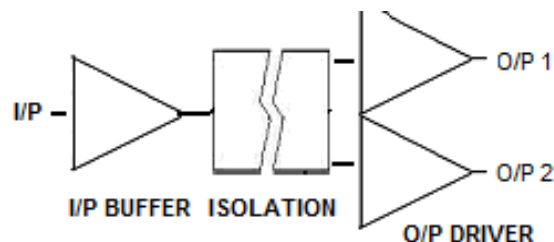
TERMINATION

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

FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITIONS

Storage temperature: -40 to $+70^{\circ}\text{C}$
Operating Ambient: -15 to $+55^{\circ}\text{C}$
Relative Humidity: 5 to 95% RH (Non-Condensing)

EMC: 2014/30/EU, EN 61326-1:2013 (Controlled EM)
(‘K’ option available, to the higher Generic Industrial levels)

MOUNTING / DIMENSIONS

Enclosure: 50w x 75h x 145d mm
Mounting: Din Rail (TS35) as standard.
(Surface by Seismic Keyhole plate option available, rear mounting plate dimensions 50w x 130h mm)

‘K’ option: RFI Protection (Enclosure Dims: 50w x 75h x 182d)

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