

ADM241 Dual Calibration Slidewire / Resistance Transmitter / Isolator

- Suitable for use in SIL 1 & SIL 2 rated (EN 61508-2) safety system loop applications, as 1oo1 architecture (HFT:0)
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options: 115Vac $\pm 20\%$
240Vac $\pm 20\%$
24Vdc $\pm 10\%$
48Vdc $\pm 10\%$
- RFI Protection to EN 61000-3:2006/A2:2010, 'K' option available
- AMELEC standard 10 year warranty

APPLICATION

- Any application where a potentiometer, thermistor or other type resistance needs to be converted, split, isolated & retransmitted.

TECHNICAL SPECIFICATION

INPUT

Any Potentiometer can be specified in the range of: 1K Ω up to 10K Ω wire wound potentiometer. Version also available for plastic film pots (Input excitation 1V dc @ 2mA max, other options available). Resistance input ranges available up to 12Kohms as standard

OUTPUTS

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 up to 10V max per output.
Typical output range: 4 - 20mA (Active ports, into 550 Ω loads max)

CONTROLS (per Output channel)

15 turn potentiometers.
Zero $\pm 20\%$
Span $\pm 20\%$

INDICATOR

Power ON: LED, Amber.

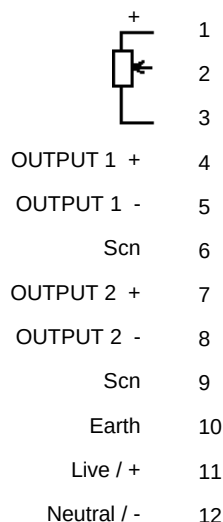
PERFORMANCE

Accuracy/Linearity: $< \pm 0.1\%$ resistance span
Response time: Typically $< 400\text{ms}$
Supply consumption: $< 3\text{VA}$
Input O/C response: Upscale drive as standard

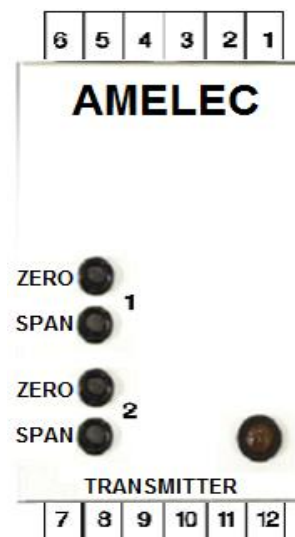
PROTECTION

Isolation: 1000V RMS* Input/Output/Output/Supply/Earth
*(500Vdc when 'K' option is specified)
Internal Fuse.
Input over range: 300% (outputs saturate at approx $+20\%$ over)
'K' option RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$,
(80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz/1.75GHz $\leq 40\text{V/m}$).

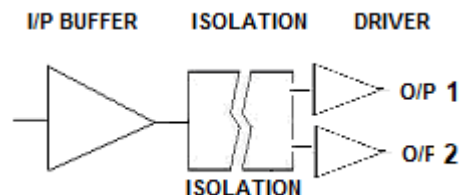
TERMINATION



FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITION

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 to the highest Generic Industrial levels)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 146d mm (*'K' option = 182d mm)
Mounting: Din Rail std (Surface/Seismic Keyhole plate & Front of Panel Mounting options available on request)
Weight $< 500\text{g}$

ADD ON / OPTIONS

P: Test point (Output loop monitoring)
DI: Digital Display on front fascia available
X: Input O/C response Downscale drive
(Non standard supply or output ranges available)