

ADM231KX-RA Process Transmitter/Isolator with Dual Output

- Suitable for SIL 1, SIL 2 & SIL 3 rated (IEC61508-2) safety system loop applications
- Supply voltages: 115Vac $\pm 20\%$
230Vac $\pm 20\%$
24Vdc $\pm 2.5V$
48Vdc $\pm 5V$
- RFI Protection to IEC61000-4-3:2006/A2:2010
- AMELEC Standard 10 year warranty

TECHNICAL SPECIFICATION

INPUT

DC current / voltage can be specified in the range of:

Current up to 100mA max (Passive)

Voltage 0.4 to 100V max

Typical input: 4 - 20mA (Passive)

OUTPUTS

DC current or voltage specified in the range of:

Current up to 100mA max in optional Sink configuration (externally powered)

Current up to 22mA max in std. Source configuration (Internally powered)

Voltage range from 0.4 to 20V max @ up to 5mA per output.

Typical output range: 4 - 20mA (Source)

One or both outputs may be requested as the Reverse Acting (-RA)

Eg: 20-4mA, 10-0Vdc

CONTROLS

15 turn potentiometers for each output channel.

Zero $\pm 25\%$

Span $\pm 50\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.1\%$

Response time: Typically $< 100\text{ms}$

Accuracy: $< \pm 0.1\%$

Supply regulation: AC supply $\pm 20\%$, DC supply $\pm 10\%$

Supply consumption: $< 2\text{VA}$

PROTECTION

Isolation 500V DC: Input/Output/Output/Supply/Earth Internal Fuse.

Input over range up to typically 300%

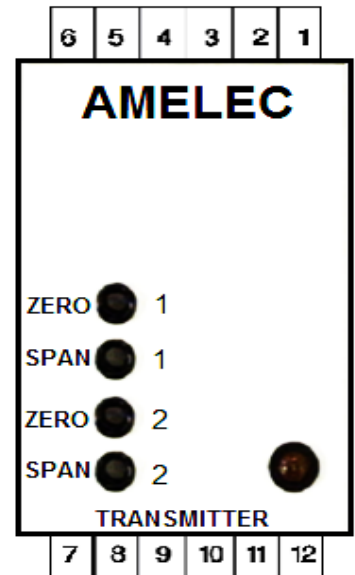
Input Open Circuit response: Downscale drive as std (O/C Upscale drive option available)

RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$, (80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz-1.75GHz $\leq 40\text{V/m}$)

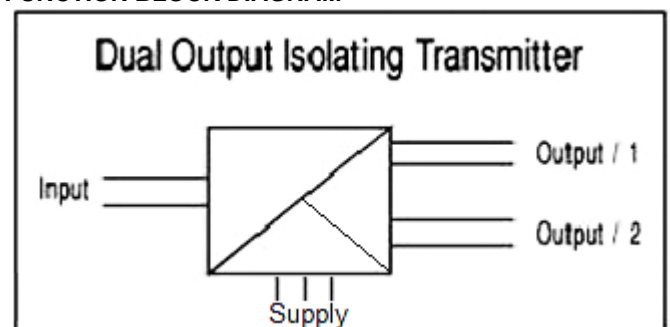
TERMINATION

Input +	1
Input -	2
Scn	3
Scn	4
OUTPUT 2 +	5
OUTPUT 2 -	6
OUTPUT 1 +	7
OUTPUT 1 -	8
Scn	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

MOUNTING / DIMENSION

Enclosure: 50 (W) x 75 (H) x 182 (D) – mm

Mounting: Heavy duty Din Rail as standard.

Surface by Seismic key hole plate option available (Mounting plate Dimension 50w x 130h mm)

RFI Protection

Maximum 1% error when subject to $\leq 30\text{V/m}$ RF field in the frequency range from 80 to 1000MHz.