

ADC311KX Scale & Bias Transmitter / Isolator with Dual Output

- Suitable for SIL 1, SIL 2 & SIL 3 rated (EN 61508-2) safety instrumented system (SIS) loop applications
- Supply voltages: 115Vac $\pm 20\%$
240Vac $\pm 20\%$
24Vdc $\pm 2.5V$
48Vdc $\pm 5V$
- RFI Protection to EN 61000-4-3:2006/A2:2010
- Non Smart / Non-uProcessor, Type A instrument
- AMELEC Standard 10 year warranty

APPLICATION

- Any application where DC voltage or current signals need to be scaled, isolated, split and re-transmitted.

TECHNICAL SPECIFICATION

INPUT

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

Current up to 100mA max (Passive) as std

Voltage up to 100V max as std

Typical input: 0-10uA, 20-4mA, 4-8mA or -10V to +10Vdc

OUTPUTS

(may be specified the same or different to each other)

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 range up to 20Vdc max may be specified.

Typical output: 0-100uA, 20-4mA, 8-12mA or -1V to +1Vdc

CONTROLS

15 turn potentiometers for each output channel.

Zero $\pm 25\%$

Span $\pm 50\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.1\%$ span

Response time: Typically $< 100\text{mS}$ (0-100% step change)

Accuracy: $< \pm 0.1\%$ span

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

Supply consumption: $< 3\text{VA}$

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



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 (Generic Industrial Levels)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 182d mm

Mounting: Din Rail (TS35) as std

(optional Seismic/Surface Keyhole plate, 50w x 130h mm)

Weight $< 500\text{g}$

RF Immunity

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

Protection

Isolation: 500Vdc: Input/Output/Output/Supply/Earth.
Internal Fuse.

Input over range: typically up to 300%.

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