

## ADC311K X / HV High Voltage Signal Scale & Bias Transmitter / Isolator

- Suitable for SIL 1, SIL 2, SIL 3 rated safety instrumented system (SIS) loop applications (EN 61508-2)
- Suitable for combinations of high voltage input signals and Bi-polar or Reverse Acting signals
- Supply voltage options:
  - 115Vac  $\pm 20\%$
  - 240Vac  $\pm 20\%$
  - 24Vdc  $\pm 10\%$
  - 48Vdc  $\pm 10\%$
  - 110Vdc  $\pm 10\%$
- RFI protection to EN 61000-4-3:2006/A2:2010
- Non-Smart / Non-uProcessor based, Type A instrument
- Amelec standard 10 year Warranty

### TECHNICAL SPECIFICATION

#### INPUT

Suitable for DC Voltage input signals, with spans of  $\geq 250V$   
 Typical input ranges: -150V to +150Vdc, -500V to +500Vdc

#### OUTPUT

DC current or voltage specified in the range of:  
 Current up to 22mA max Source configuration (Internally powered)  
 Voltage any up to 20V max span @ up to 5mA per output.  
 Typical output range: 4 - 20mA, 20-4mA (Source) or -10V to +10Vdc  
 Current up to 100mA max in Sink configuration (externally powered)

#### CONTROLS

15 turn potentiometers: Zero  $\pm 25\%$ , Span  $\pm 50\%$

#### INDICATOR

Power ON: LED, Amber.

#### PERFORMANCE

Linearity/ Accuracy:  $< \pm 0.1\%$   
 Response time: Typically  $< 100ms$   
 Supply regulation: AC  $\pm 20\%$ , DC  $\pm 10\%$   
 Supply consumption:  $< 3VA$   
 Input open circuit response: Downscale drive as std

#### PROTECTION

Isolation: 1000V or 1500V DC Input / (Output/Supply/Earth), as req'd  
 (500Vdc Output / Supply / Earth)  
 Internal Fuse.  
 Input over range up to typically 200%.  
 RF Immunity: 20MHz-3GHz/5.25GHz  $\leq 10V/m$ ,  
 (80MHz-1GHz/5.6GHz  $\leq 30V/m$ , 889MHz/1.75GHz  $\leq 40V/m$ )

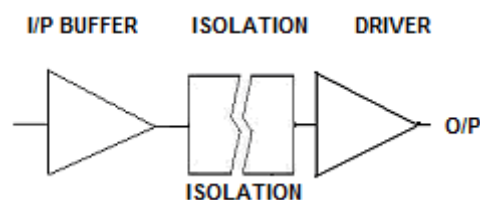
#### TERMINATION

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

#### FRONT VIEW



### FUNCTION BLOCK DIAGRAM



### ENVIRONMENTAL CONDITIONS

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 / DIMENSIONS

Enclosure: 50w x 75h x 182d mm  
 Mounting: Heavy duty DIN Rail (TS35) as standard,  
 Surface/Seismic keyhole plate or Front of Panel mounting options  
 also available. (Surface mounting plate: 50wx130h mm)  
 Weight  $< 500g$

### ADD ON / OPTIONS

**J** : Input injection jack socket  
**P** : Test point (input &/or Output monitoring)  
**DI** : 3½ digit Display of the input or output, scaled in units to suit  
**X** : Input O/C response Upscale drive, or 'other' custom request