

## ADC311X-2 Dual Channel Scale & Bias Transmitter / Isolator

- Suitable for SIL 1 & SIL 2 rated (EN 61508-2) safety instrumented system (SIS) loop applications, 1oo1 architecture (HFT:0)
- Suitable for combinations of non-std process I/V inputs & outputs
- Supply voltage options: 12Vdc / 24Vdc / 48Vdc (+/-10%)
- Non-Smart / Non-uProcessor based, Type A instrument
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- AMELEC Standard 10 year warranty

### Technical Specifications

#### Application

Bi-polar & Non Std Process Signal Converter / Isolator,  
Non std Process Signal interface to resolve incompatibility.

#### Inputs

DC current / voltage can be specified in the range of:  
Current up to  $\pm 100\text{mA}$  max (Passive port)  
Voltage up to  $\pm 150\text{V}$  max  
Typical Input:  $-10\text{V}$  to  $0\text{V}$  to  $+10\text{Vdc}$  (impedance  $1\text{M}\Omega$ )

#### Outputs

Different  $\mu\text{A}$  /  $\text{mA}$  / Voltage range for each output can be specified.  
DC current or voltage may be specified in the ranges of:  
Current up to  $100\text{mA}$  max in Passive/Sink configuration (Externally powered)  
Current up to  $22\text{mA}$  max Active/source configuration (Internally powered)  
Voltage any up to  $10\text{V}$  max per output.  
Typical output range:  $20\text{-}12\text{-}4\text{mA}$  Reverse acting ( $\leq 550\Omega$  load)

#### Controls (for each channel)

Zero / Span 15 turn potentiometers ( $\pm 20\%$ )

#### Indicator

Power ON: LED, Amber

#### Performance

Accuracy/Linearity:  $< \pm 0.1\%$   
Response time:  $< 100\text{ms}$  (0-100% input step change)  
Supply regulation:  $\pm 10\%$   
Supply consumption:  $< 3\text{VA}$

#### Protection

Isolation  $1000\text{V RMS}^*$   
Input1/Input2/Output1/Output2/Supply/Earth  
\*( $500\text{Vdc}$  when 'K' option is specified)  
Internal Fuse.  
Input over range typically up to  $300\%$ .  
Output limited at approx  $120\%$ .

#### 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, EN61326-1:2013 (Controlled EM)  
(\*K' option to the highest Generic Industrial levels)

#### Mounting / Dimensions

Enclosure:  $50\text{w} \times 75\text{h} \times 110\text{d}$  mm ('K' opt.= $182\text{d}$  mm)  
Mounting: DIN Rail (TS35) or Surface by corner fixing holes.  
Weight:  $< 300\text{g}$

#### Add-on / Options

HS:  $10\text{mS}$  response time (0-100% step change)  
DI: LCD- Front fascia Display for monitoring  
J: Input injection jack socket(s)  
P: Test point(s)  
K: RF immunity:  $20\text{MHz-}3\text{GHz}/5.25\text{GHz}$   $10\text{V/m}$ ,  
 $80\text{MHz-}1\text{GHz}/5.6\text{GHz}$   $30\text{V/m}$ ,  $889\text{MHz}/1.75\text{GHz}$   $40\text{V/m}$

