

ADC311K Process 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 process voltage / current inputs and outputs, including Bi-polar & 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

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

Current up to 100mA max (Passive) as std

Voltage up to ± 150 Vdc max as std

Typical input: 8-16mA, 20-4mA (Passive) or -10V to +10Vdc

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: $\leq \pm 0.1\%$

Response time: Typically < 100 ms

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

Supply consumption: < 3 VA

Input open circuit response: Downscale drive as std

PROTECTION

Isolation 500V DC: Input/Output/Supply/Earth, as std

Internal Fuse.

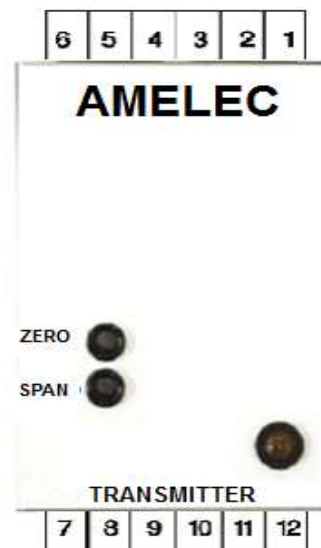
Input over range up to typically 300%.

RF Immunity: 20MHz-3GHz/5.25GHz ≤ 10 V/m,
(80MHz-1GHz/5.6GHz ≤ 30 V/m, 889MHz/1.75GHz ≤ 40 V/m)

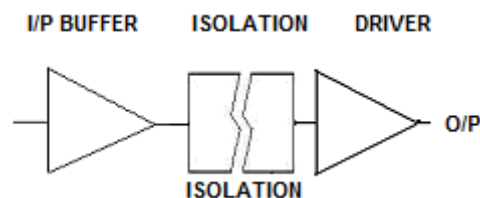
TERMINATION

Input +	1
Input -	2
Scn	3
	4
	5
	6
OUTPUT +	7
OUTPUT -	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 (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 < 500 g

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