

ADC316K High (or Low) Process Signal Limiter / Isolator

- Suitable for SIL 1, SIL 2 & SIL 3 rated safety system loop applications (IEC61508)
- Suitable for combinations of any process current or voltage (DC) input and output range
- Supply voltage options: 115Vac $\pm 20\%$
240Vac $\pm 20\%$
24Vdc $\pm 10\%$
48Vdc $\pm 10\%$
110Vdc $\pm 10\%$
- RFI protection to IEC61000-4-3:2006/A2:2010
- Amelec standard 10 year Warranty

TECHNICAL SPECIFICATION

INPUT

Current from 1mA span, up to 100mA max (Passive input port)
Voltage from 0.4V span, up to 150Vdc max
Typical input: 4 - 20mA (impedance 20 Ω , max 400mV loop drop)

OUTPUT

DC current or voltage specified in the range of:
Current up to 22mA max Source configuration (Internally powered)
Voltage any from 0.4V span, up to 20Vdc max
Typical output range: 4 - 20mA (Source, max load 1200 Ω)
Current up to 100mA max in Sink configuration (externally powered)

High/Low Limit Function

The Output is an isolated repeat of the input, whilst it is above or below the set Limit level. The High or Low Limiter function required is to be advised at time of orders.
As std the Low Limit adjustment range is from 50% down to 0% span, the High Limit adjustment range is from 50% up to 100% span.
Adjustment is via a 15-turn blindset potentiometer through the unit front fascia as std. (can be factory set with adjustment pot hidden behind front fascia if preferred)

CONTROLS

15 turn potentiometer.
Zero $\pm 25\%$
Span $\pm 50\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity/Accuracy: $< \pm 0.1\%$ span
Response time: Typically $< 100\text{ms}$
Supply regulation: AC supply $\pm 20\%$, DC supply $\pm 10\%$
Supply consumption: $< 2\text{VA}$
Input open circuit response: Downscale drive
(Open circuit Upscale drive option available on request)

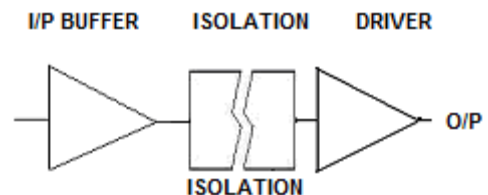
TERMINATION

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 $^{\circ}\text{C}$
Operating Ambient: -15 to +55 $^{\circ}\text{C}$
Relative Humidity: 5 to 95% RH

MOUNTING / DIMENSION

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

PROTECTION

Isolation 500Vdc: Input/Output/Supply/Earth
Internal Fuse.
Input over range up to typically 300%.
RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$,
80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz-1.75GHz $\leq 40\text{V/m}$

ADD ON / OPTIONS

DI = Digital Display (3.5 digit Liquid Crystal Display of the input or output signal in units to suit application)
X = Non standard Limit adjustment or Power Supply option