

ADC313XK-OR Process Signal Selector / Isolator with 3-wire Output connection

- Suitable for SIL 1 & SIL 2 rated safety instrumented system (SIS) loop applications (EN 61508), as 1oo1 architecture (HFT:0)
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options:

115Vac	±20%
240Vac	±20%
24Vdc	±10%
48Vdc	±10%
110Vdc	+10%
- **RFI protection to EN 61000-4-3:2006/A2:2010**
 20MHz-3GHz/5.25GHz ≤10V/m, 80MHz-1GHz/5.6GHz ≤30V/m
 (889MHz/1.75GHz ≤40V/m)
- Amelec standard 10 year Warranty

TECHNICAL SPECIFICATION

INPUT (Channels 1 & 2)

DC Current or Voltage can be specified in the range of:

Current from 1mA span, up to 100mA max (Passive input port)

Voltage from 0.4V span, up to 150Vdc max

Typical input: 2 x 4-20mA (impedance 20Ω, max 400mV loop drop)

Note: Inputs will share a Common internal 0V, so need to be isolated from each other at source.

OUTPUT

Open/Closed Contact from Remote selector switch determines which input channel is routed through as the isolated repeat Voltage Output signal, specified in the range of 0-0.4 up to 20Vdc max.

Typical output range: 0-10Vdc (min load 500Ω)

CONTROLS

15 turn potentiometers for output loop calibration.

(Zero ± 25%, Span ± 50%)

Volt free contacts. (Wetted by 24Vdc @ 10mA Max)

Other voltage or current available on request.

Open contact = Input 1 selected, Closed = Input 2 selected

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Accuracy/Linearity: < ±0.1%

Response time: Typically < 100ms

Supply regulation: AC supply ± 20%, DC supply +/-10%

Supply consumption: <3VA

PROTECTION

Isolation: 500Vdc: Input(s)/Output/Supply/Earth

Internal Fuse.

Input over range: up to typically 300%.

Input open circuit response: Downscale drive as std

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

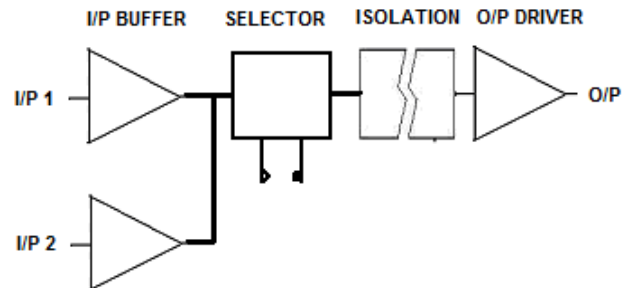
TERMINATION

Input +	1
Input -	2
Input 2 +	3
Input 2 -	4
Input Select	5
V Free Contact	6
OUTPUT Loop Vout +	7
OUTPUT - / 0V	8
OUTPUT Loop Vin +	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

EMC: 2014/30/EU , EN61326-1:2013 (Generic Industrial levels)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 182d mm

Mounting: DIN Rail (TS35) as standard

Seismic / Surface keyhole plate option available
 (seismic mounting plate Dims: 50w x 130h mm)

Weight < 500g

ADD ON / OPTIONS

J : Input injection jack socket

P : Test point (input &/or Output monitoring)

DI : A 3½ digit display of the input or output in units to suit