

ADC314X-4 Four Process Input Adder/Averager Unit

- Suitable for SIL2 (EN 61508-2) rated safety instrumented system (SIS) loop applications, as 1oo1 architecture (HFT:0)
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options: 115Vac $\pm 20\%$
240Vac $\pm 20\%$
24Vdc $\pm 10\%$
12Vdc $\pm 10\%$ (Option 'X')
- RFI Protection to EN 61000-4-3:2006/A2:2010 available (Option 'K')
- AMELEC Standard 10 year warranty

Technical Specifications

Input

Any current that can be terminated in a PI network to produce a 400mV span. The inputs share a common internal 0V as std, so should be isolated from each other at source.
(Version of this unit with Internally isolated inputs is available if required).

Output

Any standard process current or voltage in the range of;
Current source up to 22mA max, with drive voltage 24Vdc
(Current Sink option available, 30Vdc max external drive)
Voltage source up to 20Vdc max output.
Typically: 4-20mA (max load 550 Ω) or 0-10Vdc (min load 500 Ω)

Typical equations

Adder = A+B+C+D (Each input = 1/4)

Averager = (A+B+C+D)/4

Indicator

Power ON: LED, Amber.

Performance

Accuracy/Linearity: $< \pm 0.1\%$ span

Response time: $< 200\text{ms}$

Supply consumption: $< 3\text{VA}$

Protection

Isolation: 1000V RMS* (I/P1+I/P2+I/P3+I/P4)/Output/Supply/Earth.

*(500Vdc when 'K' option RFI protection is specified)

Internal Fuse

Input over range: up to typically 300%

Input Open Circuit response: Downscale drive

Environmental Conditions

Storage Temperature: -40 to $+70^\circ\text{C}$

Operating Ambient: -15 to $+55^\circ\text{C}$

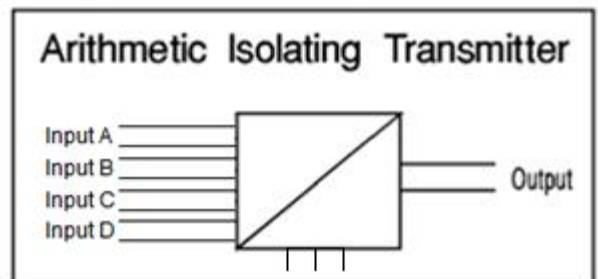
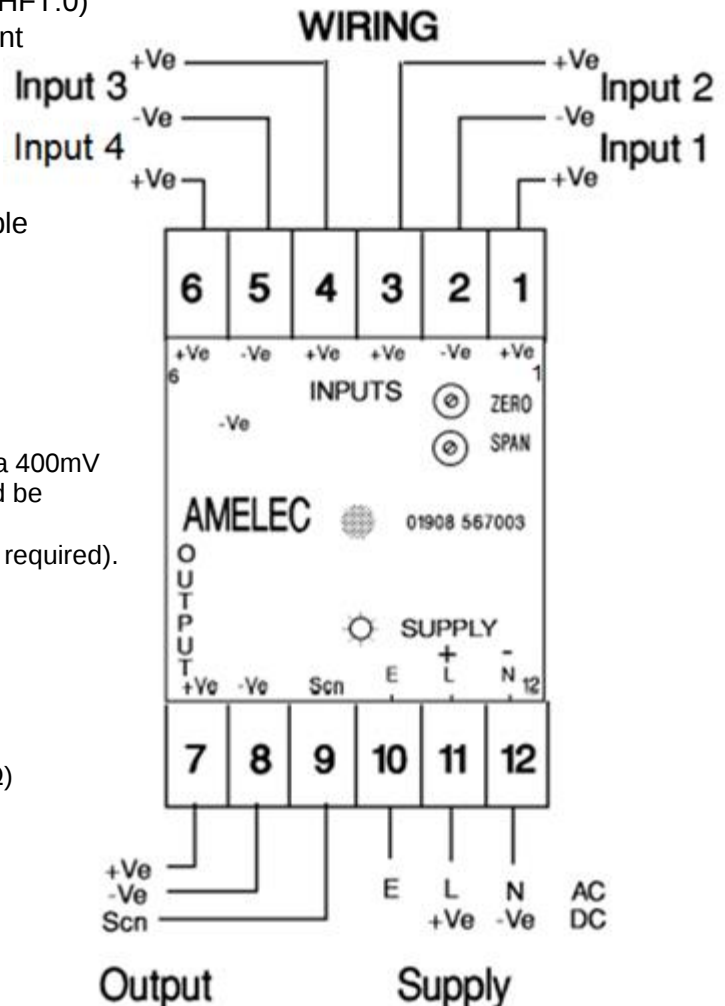
Relative Humidity: 5 – 95 RH (Non-Condensing)

EMC: 2014/30/EU, EN 61326-1:2013 (controlled EM)

('K' option: EMC/EMI/RFI protection to the highest Generic Industrial levels)

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Standard Dimensions: 50w x 75h x 110d mm

Add On / Options

'K' Option RFI Protection to IEC61000-4-3
(20 - 3000MHz $\leq 10\text{V}/\text{metre}$)

'K' Option Dimensions; 50w x 75h x 182d mm