

ADC314 Three Input Arithmetic / Summator / Averager Unit

- Suitable for SIL1 & SIL2 rated (EN 61508-2) 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 $\pm 10\%$
48Vdc $\pm 10\%$
- RFI Protection to EN61000-4-3 available ('K' option)
- AMELEC Standard 10 year warranty

Technical Specifications

Up to 3 x Inputs

Any current or voltage (DC) drives that can be terminated in a PI network to produce 400mV spans.
Current up to 100mA max input (passive port),
Voltage ranges up to 150Vdc max (impedance $\geq 1M\Omega$).
Typical Inputs: 4-20mA (impedance 20 Ω) or 0-10Vdc (impedance 1M Ω)

Inputs are equally weighted & share a Common internal 0V as standard ('X' option: Internal factory Scaling of 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 (Each input = 1/3)
Adder/Averager = (A+B+C)/3

Performance

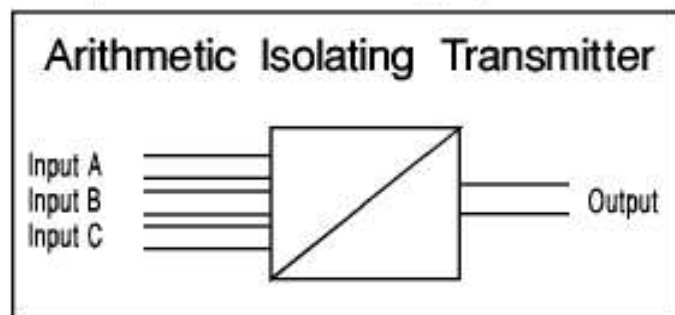
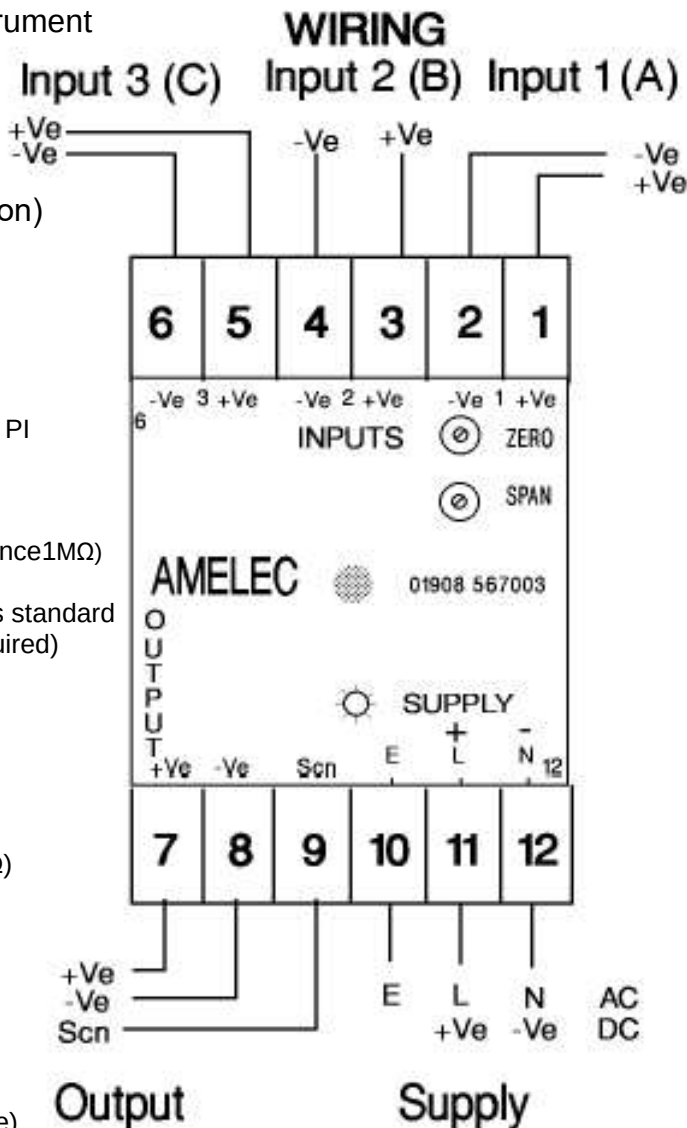
Accuracy/Linearity: $\leq \pm 0.1\%$ Span
Response Time: typically <100mS (0-100% input step change)
Supply consumption: <3VA

Protection

Isolation: 1000V RMS* Input(s)/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°C
Operating Ambient: -15 to +55°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 Ind Standards Test levels)



Mounting: Either Din Rail (TS35) **or** Surface by corner fixing holes as standard

Dimensions: 50w x 75h x 110d mm
(K option= 182d mm)

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