

ADM239 Two Input Arithmetic Unit

- Suitable for SIL 1, SIL 2 & SIL 3 rated (EN 61508-2) safety instrumented system (SIS) loop applications
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options:
 - 115Vac ±20%
 - 230Vac ±20%
 - 24Vdc ±10%
 - 48Vdc ±10%
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- AMELEC Standard 10 year warranty

Technical Specifications

Inputs

Any current or voltage (DC) drive that can be terminated in a PI network to produce a 400mV span.

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

Voltage from 0.4V span, up to 150Vdc max input (impedance ≥1MΩ)

Typical Inputs: 4-20mA (impedance 20Ω) or 0-10Vdc (impedance 1MΩ)

The inputs share a common internal 0V, however an isolated version is available on request if required ('X' option).

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 on request, 30Vdc max external drive)

Voltage source up to 20V max output

Typical Output: 4-20mA (max load 1200Ω) or 0-10Vdc (min load 500Ω)

Typical Equations

$A+B \sim (A+B)/2 \sim A-B \sim 3A-B$

(Other special equations / functions available on request)

Performance

Accuracy/Linearity: <±0.1% Span

Response Time: typically <100mS (0-100% input step change)

Supply consumption: <3VA

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 Industrial Standards Test levels)

Protection

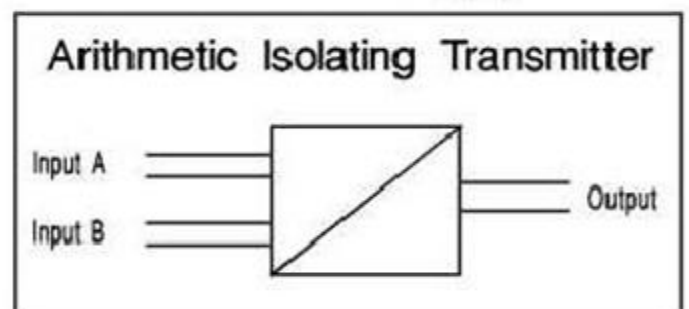
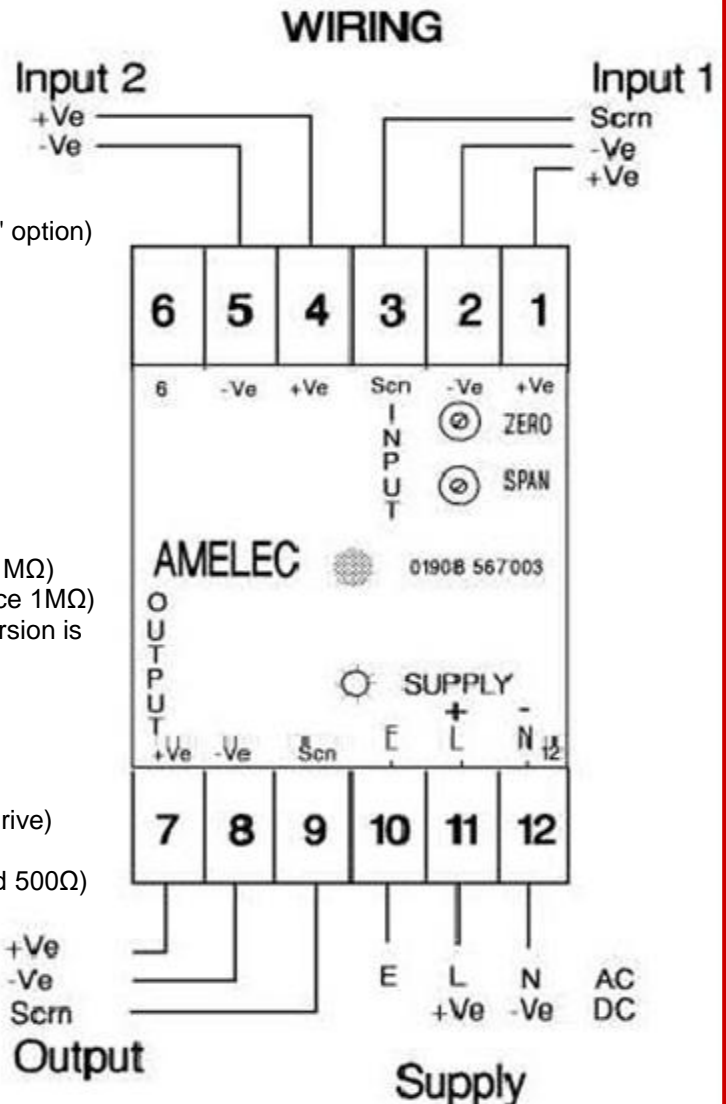
Isolation: 1000V RMS* Inputs/Output/Supply/Earth.

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

Internal Fuse

Input over range: up to typically 300%

Input Open Circuit response: Downscale drive as std



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

Dimensions: 50w x 75h x 110d mm

(DI option=145d mm, K option= 182d mm)

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