

ASM239 Two Input Arithmetic Unit

- Suitable for SIL 1 & SIL 2 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: **24Vdc** $\pm 10\%$ or **48Vdc** $\pm 10\%$ as std
(**12Vdc** $\pm 10\%$ or **9-18Vdc** options also available)
- Amelec standard 10 year warranty

TECHNICAL SPECIFICATION

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 $\geq 1M\Omega$)

Typical Inputs: 4-20mA (impedance 20Ω) or 0-10Vdc (impedance $1M\Omega$)

(N.B: The inputs share a common internal 0V).

Output

Any standard process current or voltage in the range of;

Current source up to 22mA max, with drive voltage 10Vdc

(Current Sink option available, 30Vdc max external drive)

Voltage source up to 12Vdc max output

Typical Output: 4-20mA (max load 500Ω) 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

Isolation: 1000V RMS Inputs/Output/Supply

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

Response time: $< 100mS$ (0-100% input step change)

Input Over range: $\leq 300\%$

Input Open Circuit response: Downscale drive as standard

Controls: Zero/Span potentiometers ($\pm 20\%$ span adjustment)

Indicator: Power ON (Amber LED)

DC Supply variation: $\pm 10\%$

Supply consumption: $< 3VA$

Environmental Conditions

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

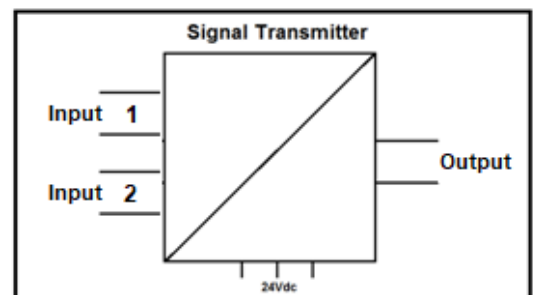
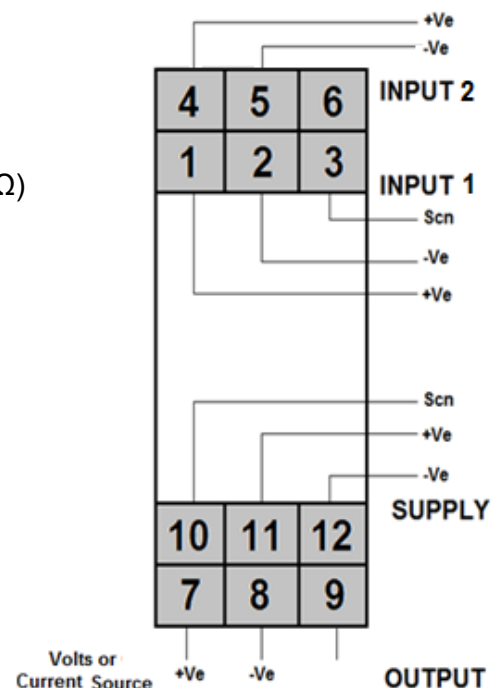
Operating Ambient: -15 to $+55^\circ C$

Relative Humidity: 5 – 95% RH (Non-condensing)

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

Mounting / Dimensions:

Din Rail (TS35) / 22.5w x 75h x 110d mm



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