

M-ADM231X-4 Four-way Process Signal Splitter / Isolator

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

APPLICATION

- Any application where DC voltage or current signals need to be isolated/converted, split and re-transmitted.

TECHNICAL SPECIFICATION

INPUT

DC current / voltage can be specified in the range of:

Current up to 100mA max (Passive) as standard

Voltage up to 100Vdc max as standard

Typical input: 4 - 20mA (Passive port, impedance 20 Ω)

Higher current (HI) or voltage (HV) input options available.

OUTPUTS (x3)

DC current or voltage specified in the range of:

Current up to 100mA max in Sink configuration (externally powered)

Current up to 22mA max Source configuration (Internally powered)

Voltage: any range up to 10Vdc max may be specified.

Typical output range: 4 x 4 - 20mA (Active, $\leq 500\Omega$ loads)

CONTROLS

15 turn potentiometers for each output channel.

Zero $\pm 25\%$

Span $\pm 25\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.1\%$ span

Response time: $< 100\text{ms}$ (0-100% step change)

Accuracy: $< \pm 0.1\%$ span

Supply regulation: AC supply $\pm 20\%$, DC supply $\pm 10\%$

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

TERMINATION

Input + 1

Input - 2

OUTPUT 1+ 3

OUTPUT 1 - 4

OUTPUT 2+ 5

OUTPUT 2 - 6

OUTPUT 3+ 7

OUTPUT 3 - 8

OUTPUT 4+ 9

OUTPUT 4 - 10

Live / + 11

Neutral / - 12

FRONT VIEW



ENVIRONMENTAL CONDITIONS

Storage temperature: - 40 to +70 °C

Operating Ambient: -15 to +55 °C

Relative Humidity: 5 to 95% RH (Non-Condensing)

EMC: 2 014/30/EU, EN 61326-1:2013 (Controlled EM)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 135d mm ('K' option = 182d mm)

Mounting: Din Rail (TS35) as std

(optional Seismic/Surface Keyhole plate, 50w x 130h mm)

Weight $< 500\text{g}$

RF IMMUNITY – 'K' option Available

20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$, 80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$,
889MHz/1.75GHz $\leq 40\text{V/m}$.

PROTECTION

Isolation: 1000Vrms* Input/OP1/OP2/OP3/OP4/Supply/Earth
*(500Vdc when 'K' option specified)

Internal Fuse.

Input over range: Typically up to 300%.

Input Open Circuit response: Downscale drive as standard
(O/C Upscale drive option 'X' available)

IP Rating: IP20

Earth connection: via **Stud on underside** of unit enclosure