

ADM231X-3-(AC Supply) Three way Signal Converter/Isolator/Splitter

- Suitable for SIL 1, SIL 2, & SIL 3 rated (EN 61508-2) Safety Instrumented System (SIS) loop applications
- Supply voltage options: 115Vac or 230Vac $\pm 20\%$
- RFI Protection to EN 61000-4-3:2006/A2:2010 ('K' option) available
- Amelec standard 10 year warranty
- Non-Smart / Non-uProcessor based, Type A instrument

APPLICATION

- Signal Isolator / Splitter
- Signal converter to resolve incompatibility.

TECHNICAL SPECIFICATION

INPUT

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

Current up to 100mA max (Passive port)
Voltage 0.4 to 100V max
Typical input: 4 - 20mA (impedance 50ohms)

OUTPUTS

Different mA / Voltage ranges may be specified for each output channel.
DC current or voltage specified in the range of:
Current up to 100mA max in Sink configuration (Externally powered)
Current up to 22mA max in std Source configuration (Internally powered)
Voltage any up to 10Vdc max.
Typical output range: 4 - 20mA (Source, max load 500ohms)

CONTROLS (Single for all three Output Channels)

Zero/Span:15-turn calibration potentiometers (+/-20% span)

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Linearity: $< \pm 0.1\%$
Response time: Typically $< 200\text{ms}$ (0-100% step change)
Accuracy: $< \pm 0.1\%$
Input O/C response: Downscale drive
Supply consumption: $< 3\text{VA}$

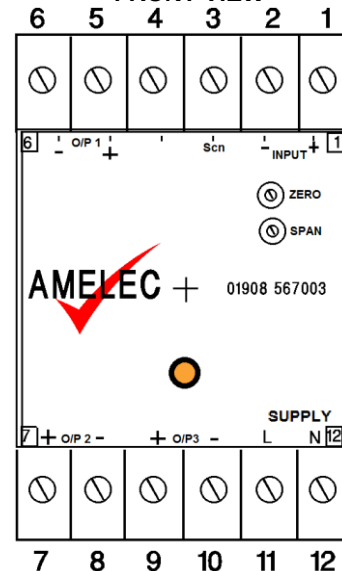
PROTECTION

Isolation 1000V RMS*
Input /Output1/Output 2/Output3/Supply/Earth
(*500Vdc if 'K' option RFI Protection is specified)
Internal Fuse.
Input over range up to typically 300%.
Output limited at 120%

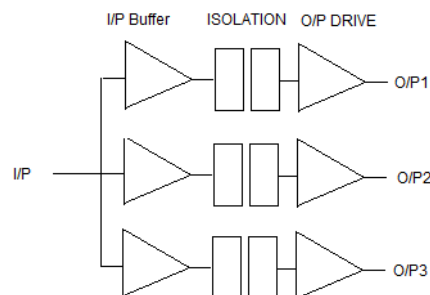
TERMINATION

Input +	1
Input -	2
Scn	3
	4
OUTPUT 1 +	5
OUTPUT 1 -	6
OUTPUT 2 +	7
OUTPUT 2 -	8
OUTPUT 3 +	9
OUTPUT 3 -	10
Live / +	11
Neutral / -	12

FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITION

Storage Temperature: -40 to +70 °C
Operating Ambient: -15 to +55 °C
Relative Humidity: 5 to 95% RH (Non-condensing)
EMC: 2014/30/EU , EN 61326-1:2013 (controlled EM)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 110d mm
Mounting: Din Rail (TS35) / Surface (by Corner Fixing holes)
Weight $< 200\text{g}$

ADD ON / OPTIONS

HS: High Speed Response time ($< 20\text{ms}$)
DI: LCD Digital Display for local monitoring
J : Input injection Jack socket
P: Test Point
K: Higher level of RFI protection (20-1000MHz, up to 30V/mtr)