

ADM231G Process Signal Splitter / Isolator with a Linearised Output

- Suitable for SIL 1, SIL 2 & SIL 3 rated (EN 61508-2) safety instrumented system (SIS) loop applications
- Supply voltages: 115Vac $\pm 20\%$
240Vac $\pm 20\%$
24Vdc $\pm 2.5V$
48Vdc $\pm 5V$
- Full RFI Protection option 'K' available
- 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, with correction/linearisation applied to output channel2

TECHNICAL SPECIFICATION

INPUT

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

Current up to 100mA max (Passive) as std
Voltage up to 150Vdc max as std
Typical input: 4 - 20mA (Passive port, impedance 20 Ω)
Higher current (HI) or voltage (HV) input options available.

OUTPUTS

DC current or voltage specified in the range of:
Current up to 100mA max in Sink configuration (externally powered)
Current up 22mA max Source configuration (Internally powered)
Voltage: any range up to 20Vdc max may be specified.
Typical output range: 2 x 4 - 20mA (Active, $\leq 550\Omega$ loads)

CONTROLS

15 turn potentiometers for each output channel.
Zero $\pm 25\%$, Span $\pm 50\%$

INDICATOR

Power ON: LED, Amber.

PERFORMANCE

Accuracy O/P1: $\leq \pm 0.1\%$ direct repeat of input signal level
Linearity/Accuracy O/P2: to best within 3x Break point /
4x Straight line correction of input signal curve
Response time: $< 100\text{ms}$ (0-100% input step change)
Supply consumption: $< 3\text{VA}$

TERMINATION

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

FRONT VIEW



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)
(‘K’ option to highest Generic Industrial Levels)

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 145d mm ('K' option = 182d mm)
Mounting: Din Rail (TS35) as std
(optional Seismic/Surface Keyhole plate, 50w x 130h mm)
Weight $< 500\text{g}$

‘K’ OPTION RF IMMUNITY

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: 1000V RMS* Input/Output1/Output2/Supply/Earth
*(500Vdc when ‘K’ option is specified)
Internal Fuse.
Input over range: typically up to 300%.
Input Open Circuit response: Downscale drive as std
(O/C Upscale drive option ‘X’ available)
IP Rating: IP20