

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 ±20% 240Vac ±20%

24Vdc ±2.5V 48Vdc ±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, impeda

Typical input: 4 - 20mA (Passive port, impedance 20Ω) 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: $2 \times 4 - 20mA$ (Active, $\leq 550\Omega$ loads)

CONTROLS

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

INDICATOR

Power ON: LED, Amber.

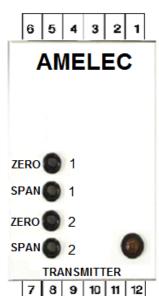
PERFORMANCE

Accuracy O/P1: <±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: < 100mS (0-100% input step change)

Supply consumption: <3VA

TERMINATION FRONT VIEW

Input + Input -Scn 3 Scn OUTPUT 2+ OUTPUT 2 -6 **OUTPUT 1+** 7 OUTPUT 1 -Scn Earth 10 Live / + Neutral / -12



ENVIRONMENTAL CONDITION

Storage temperature: - 40 to +70 ℃ Operating Ambient: -15 to +55 ℃

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 <500g

'K' OPTION RF IMMUNITY

 $20MHz-3GHz/5.25GHz \le 10V/m$, $80MHz-1GHz/5.6GHz \le 30V/m$, 889MHz/1.75GHz < 40V/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