

## ADM271K Strain Gauge Transmitter / Signal Isolator with Dual 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  $\pm 5V$
- RFI Protection to EN 61000-4-3:2006/A2:2010
- Front fascia Digital Display option 'DI' available
- Non Smart / Non-uProcessor, Type A instrument
- AMELEC Standard 10 year warranty

### APPLICATION

- Provides a DC output signal proportional to a bridge type strain gauge utilised within load cells, load pins and pressure transducers.

### TECHNICAL SPECIFICATION

#### INPUT

Any mV signal range (with a minimum 4mV span)  
Typical input: 0-30mV (@3mV/V)  
Excitation: 10Vdc at up to 30mA as standard  
(5V / 24Vdc options are 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

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
Exc +	3
Exc -	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 (Generic Industrial Levels)

### MOUNTING / DIMENSIONS

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

### 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: 500Vdc: Input/Output/Output/Supply/Earth.  
Internal Fuse.  
Input over range: typically up to 300%.  
Input Open Circuit response: Upscale drive as std  
(O/C Upscale drive option available on request)  
IP Rating: IP20