

## ADM280K Frequency to Process Signal Transmitter / Isolator

- Suitable for SIL 1 & SIL 2 rated (EN 61508) safety instrumented system (SIS) loop applications, as 1oo1 architecture (HFT:0)
- Non-Smart/Non-uProcessor based, type A instrument
- Supply voltages:
  - 115Vac  $\pm 20\%$
  - 240Vac  $\pm 20\%$
  - 24Vdc  $\pm 10\%$
  - 48Vdc  $\pm 10\%$
  - 110Vdc  $\pm 15\%$
- RFI protection to EN 61000-4-3:2006/A2:2010 (20-3000 MHz  $\leq 10$  V/m, 80-1000MHz  $\leq 30$  V/m)
- Amelec standard 10 year warranty

### TECHNICAL SPECIFICATION

#### INPUT Pulse/Frequency

Any regular pulse or repetitive waveform, including:  
Namur, Sine, Square or Sawtooth.  
Minimum 25Hz calibrated span (maximum 12KHz)  
Input level may be anywhere between 50mV-200V pk-pk

#### OUTPUT

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 from 0.4 to 20V max @ up to 5mA per output.  
Typical output range: 4 - 20mA (Source)

#### CONTROLS

15 turn potentiometer.  
Zero  $\pm 25\%$   
Span  $\pm 50\%$

#### INDICATOR

Power ON: LED, Amber.

#### PERFORMANCE

Linearity:  $< \pm 0.1\%$   
Response time: Typically  $< 200$ ms  
Accuracy:  $< \pm 0.1\%$   
Supply regulation: AC  $\pm 20\%$ , DC  $\pm 10\%$   
Supply consumption:  $< 2$ VA  
Input open circuit response: Downscale drive as std

#### PROTECTION

Isolation 500Vdc: Input/ Output/Supply/Earth  
Internal Fuse.  
Input over range up to typically 300%.  
RF Immunity: 20MHz-3GHz/5.25GHz 10V/m, 80MHz-1GHz/5.6GHz 30V/m (889MHz/1.75GHz 40V/m)

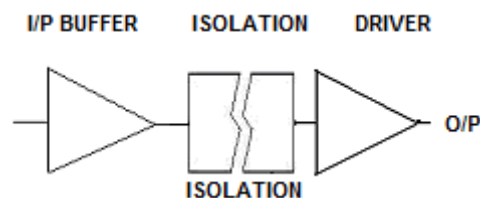
#### TERMINATION

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

#### FRONT VIEW



#### FUNCTION BLOCK DIAGRAM



#### ENVIRONMENTAL CONDITIONS

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)

#### MOUNTING / DIMENSION

Enclosure: 50w x 75h x 182d mm  
Mounting: DIN Rail (TS35) as standard  
(Seismic / Surface keyhole plate or Front Panel mount options also available on request)  
Weight  $< 500$ g

#### ADD ON / OPTIONS

J : Input injection jack socket  
P: Test point (Output loop monitoring)  
X: 'Other' options or Non standard Power supply ranges available  
DI: 3½ or 4 digit display of the input or output, scale range to suit