

## ADC319 Process Sample & Hold Transmitter / Isolator

- Suitable for SIL 1, SIL 2 & SIL 3 rated (EN 61508-2) safety instrumented system (SIS) loop applications
- Non-Smart / Non-uProcessor based, Type A instrument
- Supply voltage options:
  - 115Vac ±20%
  - 240Vac ±20%
  - 24Vdc ±10%
  - 48Vdc ±10%
  - 110Vdc ±10%
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- AMELEC Standard 10 year warranty

### Technical Specifications

#### Input

Any current or voltage (DC) drive that can be terminated in a PI network to produce a 400mV span.  
 Current up to 100mA max input (passive port)  
 Voltage ranges up to 200Vdc max as std (impedance  $\geq 1M\Omega$ )  
 Typical Input: 4-20mA (impedance 20 $\Omega$ ) or 0-10Vdc (impedance 1M $\Omega$ )

#### Output

Any standard process current or voltage in the range of;  
 Current source up to 22mA max, with drive voltage 24Vdc (Current Sink option available, 30Vdc max external drive)  
 Voltage source up to 20Vdc max output  
 Typical Output: 4-20mA (max load 1200 $\Omega$ ) or 0-10Vdc (min load 500 $\Omega$ )

#### Function

The unit can be specified to switch from Sample to Hold mode on either a Contact Open or Close action. The unit is based on digital electronics so there is no output droop on long periods of hold.

#### Performance

Accuracy/Linearity:  $< \pm 0.1\%$  Span  
 Response Time: typically  $< 100mS$  (0-100% input step change)  
 Supply consumption:  $< 3VA$

#### Protection

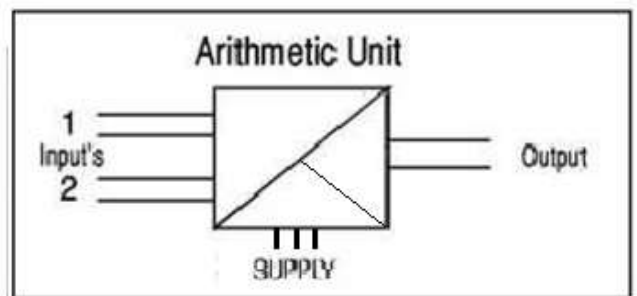
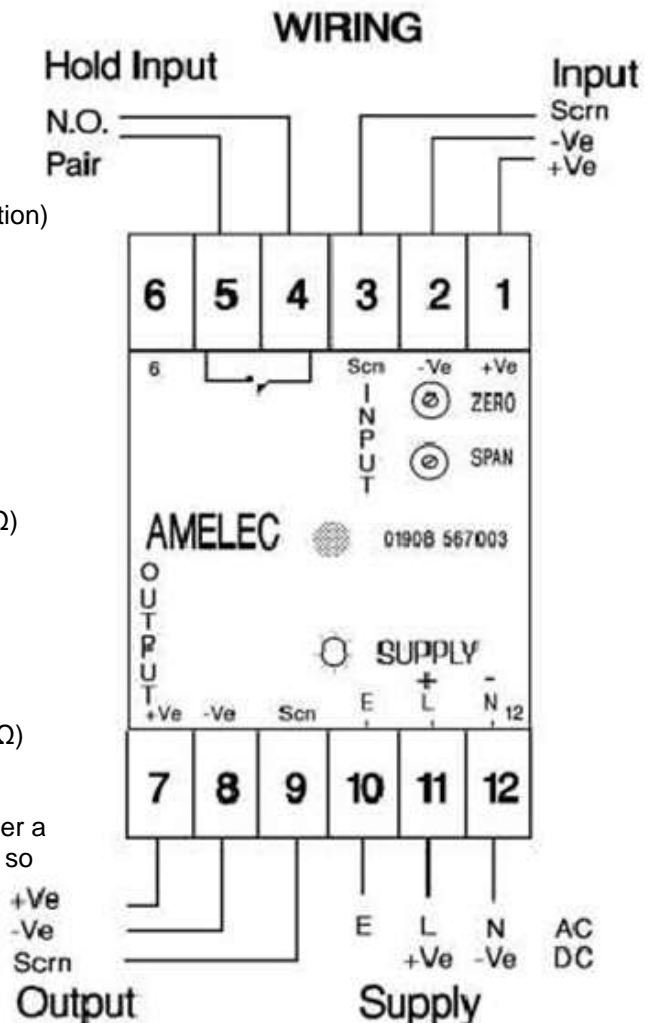
Isolation: 1000V RMS\* Input/Output/Supply/Earth.  
 \*(500Vdc when 'K' option RFI protection is specified)  
 Internal Fuse  
 Input over range: up to typically 300%  
 Input Open Circuit response: Downscale drive as std

#### Environmental Conditions

Storage Temperature: -40 to +70°C  
 Operating Ambient: -15 to +55°C  
 Relative Humidity: 5 – 95% RH (Non-condensing)  
 EMC: 2014/30/EU, EN 61326-1:2013 (controlled EM)  
 ('K' option: EMC/EMI/RFI protection to the highest Generic Industrial Standards Test levels)

#### Options

K = RF Immunity: 20MHz-3GHz/5.25GHz  $\leq 10V/m$ ,  
 80MHz-1GHz/5.6GHz  $\leq 30V/m$ , 889MHz/1.75GHz  $\leq 40V/m$ .  
 HV = High Voltage input ranges, up to 1000Vdc max  
 X = Input Open Circuit response Upscale drive, or 'other' special option



**Mounting:** Either Din Rail (TS35) **or** Surface by corner fixing holes as standard

**Dimensions:** 50w x 75h x 110d mm

(K option enclosure = 182d mm)

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