

## ADT142 Resistance/Potentiometer input Dual Trip Amplifier

- Suitable for SIL 1 & SIL 2 rated (EN 61508) Safety Instrumented System (SIS) loop applications, as 1oo1 architecture (HFT:0)
- Supply voltage options:
  - 20Vac ±20%
  - 115Vac ±20%
  - 240Vac ±20%
  - 24Vdc ±10%
  - 48Vdc ±10%
- RFI Protection to EN 61000-4-3:2006/A2:2010 option 'K' available (20-3000MHz ≤10V/m, 80-1000MHz ≤30V/m, 889MHz/1.75GHz ≤40V/m)
- Fixed or Variable Time Delay into Trip 'T' option available
- Latching Relay(s) option 'L' with local Reset facility available
- Front fascia Digital Display 'DI' option available
- Non-smart / Non-uProcessor based, Type A instrument
- AMELEC Standard 10 year warranty

### Technical Specifications

#### Input

Any Potentiometer, Slidewire or Resistance variation range up to 60,000 ohms as standard, with a minimum Span of 10 ohms. If the Input is from a slidewire device the end to end resistance should be greater than 100Ω. Any wire wound Potentiometer can be specified in the range of: 100Ω up to 20KΩ. Version available for plastic film pot's (Excitation 1V@2mA as std). (Four-wire input option is also available on request) NTC/PTC Thermistor input options also available.

#### Outputs

Each trip output is a set of changeover contacts, rated at 250VAC, 2A, 100VA resistive. Relays De-energise on Trip & Fail Safe on loss of power as std Red LED indication of each relay status (**ON** Energised/healthy, **Extinguished** in Trip/De-energised state)

#### Isolation

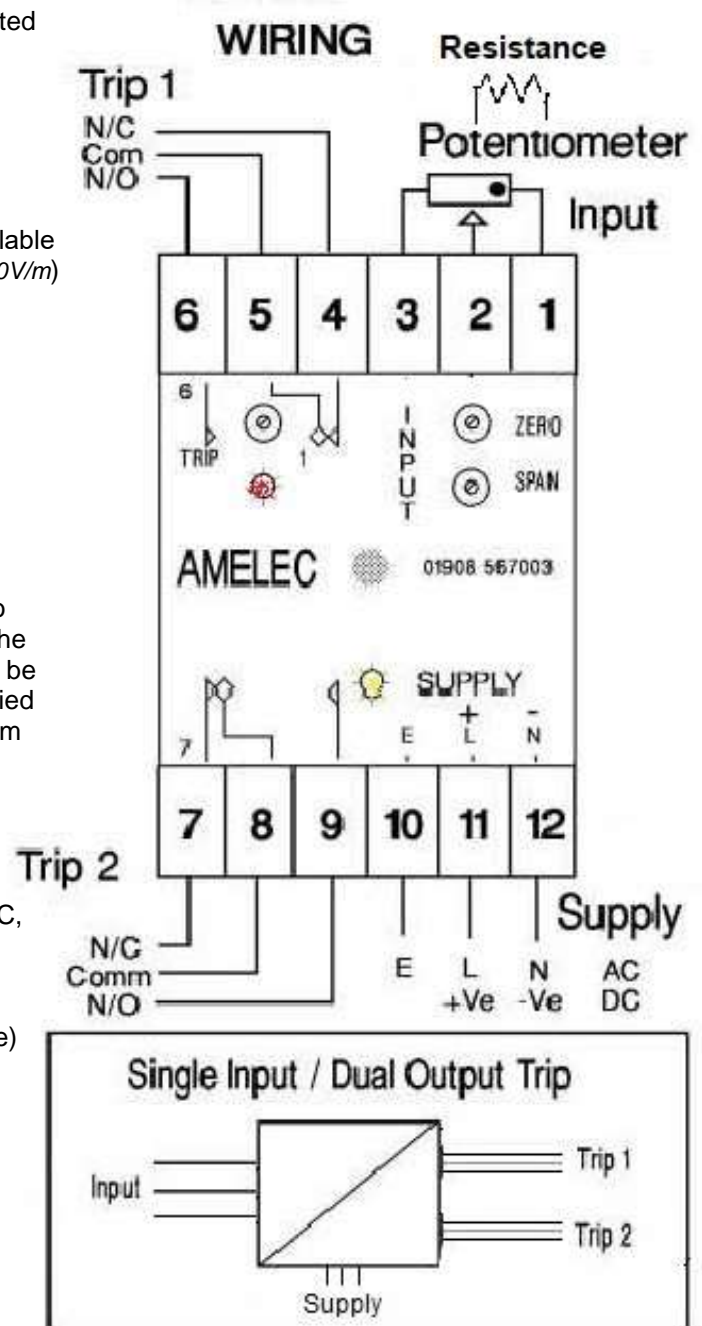
1000V RMS\* Input/Contacts/Contacts/Supply/Earth  
\*(500Vdc when RFI option 'K' is specified)

#### Performance

Trip settability: ±1%  
 Trip repeatability: ±0.1%  
 Response time: <400mS (0-100% input step change)  
 Deadband: 1% Span hysteresis as std.  
 (Variable hysteresis 0.5%-20% span available – 'V' option)  
 Input Open Circuit response: Upscale drive as standard  
 (O/C Downscale drive available on request – 'X' option)  
 Consumption: <3VA

#### 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 to the highest Generic Industrial levels)  
 RoHS: 2011/65/EU



#### Mounting/Dimensions

Din Rail (TS35) or Surface (by Corner Fixing holes)  
 Front of Panel mounting option available on request.

Enclosure: 50w x 75h x 110d mm, with Fixed screw terminals to front as standard,

'DI' option enclosure = 145d mm,  
 'K' option enclosure = 182d mm.  
 (Each with fixed screw terminals towards rear of enclosure as std, Plug-in terminals option available)

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