

ADT141 Resistance Input Trip Amplifier

- Suitable for SIL 1 & SIL 2 rated (EN 61508-2) Safety Instrumented System (SIS) loop applications, as 1001 architecture (HFT:0)
- Non-smart / Non-uProcessor based, Type A instrument

 Supply Voltage options: 20Vac <u>+</u>20% 115Vac ±20%

240Vac ±20% 24Vdc ±10% 48Vdc ±10%

- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option: (20-3000MHz <10V/m, 20-1000MHz <30V/m)
- Fixed or Variable Time Delay into Trip available ('T' option)
- Latching Relay with Local or remote Reset available ('L' option)
- Front fascia Digital Display available ('DI' Option)
- AMELEC Standard 10 year warranty

Technical Specifications

Input

Resistance/ Slidewire/ Thermistor/ Potentiometer input variation ranges up to 60K ohms, with a min Span of 10 ohms as std. If the Input is from a slidewire device the end to end resistance should be greater than 100Ω & wire-wound potentiometers may be specified up to 20K ohms. Versions available for conductive plastic potentiometers other Special applications ('X' option)

(Four-wire input option is also available on request – '4W' option).

Output

Trip output is a set of changeover contacts (D.P.C.O) rated at 250VAC, 2A, 100VA resistive.

Relays De-energise on Trip & Fail Safe on loss of power as std Red LED indication of relay status

(ON Energised/healthy, Extinguish in Trip/De-energised state)

Isolation

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

Performance

Trip settability: ±1%
Trip repeatability: ±0.1%
Response time: <400mS

Deadband: nom 1% of Span Hysteresis as std. (Variable hysteresis 0.5%-20% available - 'V' option) Input Open Circuit response: Upscale drive as std

(O/C Downscale drive available as special request ('X' option)

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)

Dimensions/Mounting

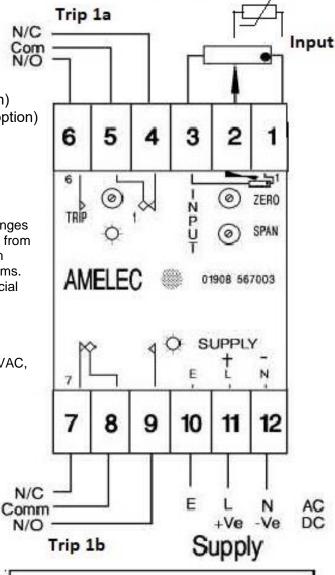
50w x 75h x 110d mm, Din Rail (TS35) or Surface.

('DI' option enclosure = 145d mm, 'K' option enclosure = 182d mm)

Tel: 01908-567003 Email: <u>sales@amelec-uk.com</u> Visit: <u>www.amelec-uk.com</u> Fax: 01908-566735 AMELEC Instruments, Cochran Close, Crownhill, Milton Keynes, MK8 0AJ

Input

(2, or 3 Wire)



Single input / single output trip

 \Box

Supply

T1a

T₁b

WIRING