

ADT141 Resistance Input Trip Amplifier

- Suitable for SIL 1 & SIL 2 rated (EN 61508-2) Safety Instrumented System (SIS) loop applications, as 1oo1 architecture (HFT:0)
- Non-smart / Non-uProcessor based, Type A instrument
- Supply Voltage options: 20Vac ±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)

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WIRING

