

ADT142DI (BI)(V)(X)(K) Resistance/Slidewire Trip Amplifier

- Suitable for SIL 1, SIL 2 or SIL 3 rated (EN 61508) Safety Instrumented System (SIS) loop applications.
- Non-Smart / Non-uProcessor based instrument (Type A)
- Suitable for 2, 3 or 4 wire resistance inputs
- Supply voltage options:
 - 115Vac ±20%
 - 240Vac ±20%
 - 24Vdc ±10%
 - 48Vdc ±10%
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- 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). A two wire resistance variation can be connected to the ADT142 by linking terminals 2 to 3. (Four-wire input option is also available on request) NTC/PTC Thermistor input options also available.

Trip Relay Outputs

Each has a set of S.P.C.O contacts, rated 250VAC, 3A,100VA (resistive). Fail Safe Relays: De-energises on Trip & Loss of Power as standard. Red LED indication of each Relay status: On Energised/ healthy, Extinguished in Trip/De-energised state as std. (Red/Green BI-colour indicator LED optional)

Display of the Input on a 3½ digit LCD as standard, Calibration range: -1999 to +1999, scaled 0-100.0 (%) or in Engineering units to suit the application.

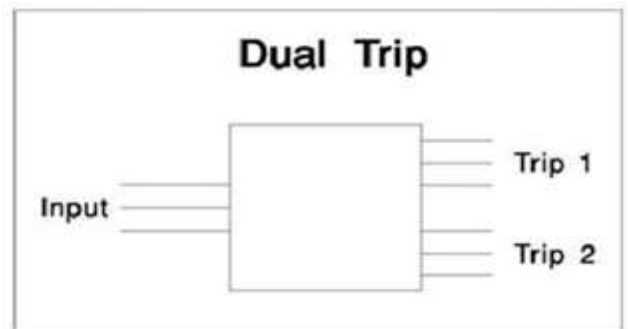
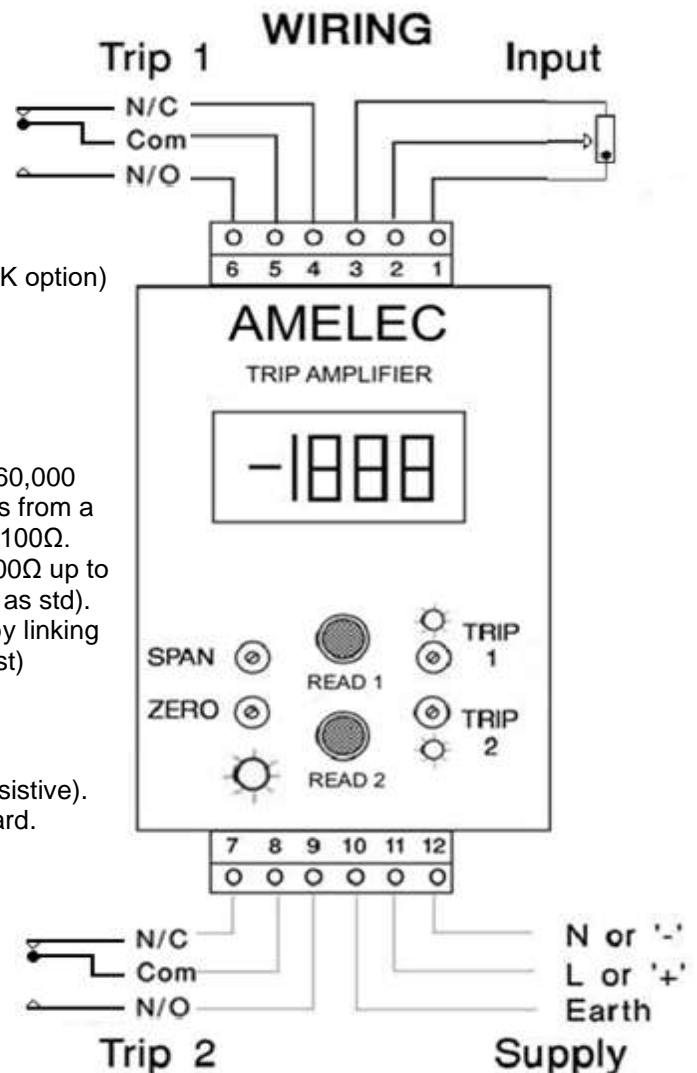
(Up to 4½ digit Red LED Display option also available)
Front fascia Read buttons or Toggle switch show the Trip Set points within the calibrated scale.

Performance

Isolation: 1000V RMS*Input/Contacts/Contacts/Supply/Earth
*(500Vdc when RFI option 'K' is specified)
Deadband: 1% std (variable 1-20% span optional 'V')
Trip settability: ±0.1%
Trip repeatability: ±0.1%
Response time: <400mS (0-100% input step change)
Input O/C response: Upscale drive as standard
(O/C Downscale drive option available on request)
'K' option RF Immunity: 20MHz-3GHz ≤10V/m
(80MHz-1GHz/5.6GHz ≤30V/m, 889MHz/1.75GHz ≤40V/m)

Mounting/Dimensions

Din Rail (TS35) standard, Surface by seismic Keyhole plate or Front of Panel mounting options also available on request. Fixed screw terminals as standard, Plug-in terminals optional.
Enclosure: 50w x 75h x 145d mm ('K' option enclosure = 182d mm)



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)

Tel: 01908-567003 Email: sales@amelec-uk.com Visit: www.amelec-uk.com Fax: 01908-566735

AMELEC Instruments, Cochran Close, Crownhill, Milton Keynes, MK8 0AJ