

## ADT139DIK Process Deviation Trip Amplifier with Display

- Suitable for SIL 1, SIL 2 or SIL 3 rated (EN 61508-2) Safety instrumented system (SIS) loop applications
- Non-Smart / Non-uProcessor, Type A instrument
- Supply voltage options: 115Vac  $\pm 20\%$   
240Vac  $\pm 20\%$   
24Vdc  $\pm 10\%$   
48Vdc  $\pm 10\%$
- RFI Protection to EN 61000-4-3:2006/A2:2010
- AMELEC Standard 10 Year Warranty

### Technical Specifications

#### Input

Any current or voltage drive that can be terminated in a PI network to produce a 400mV span. Inputs share a common 0V reference, so should be isolated from each other at source.

#### Output

Each Trip Relay output is a set of S.P.C.O contacts, rated at 250VAC, 3A, 100VA resistive.

TRIP 1 = A>B, TRIP 2 = B>A, with 1-50% span Deviation set points adjustable via 15-turn blindset potentiometers, Relay status indicators: Red LED's ON Energised / healthy, Extinguished in Trip / De-energised state

#### Digital Display

Continuous indication of the differential between input signals signal on the front fascia 3½ digit Liquid Crystal Display.

(Up to 4½ digit Red LED Display option also available)

Front Fascia Read buttons or Toggle switch shows the trip set points within the calibrated display range, scaled as either 0-100.0 % or in Engineering units to suit the application.

#### Isolation

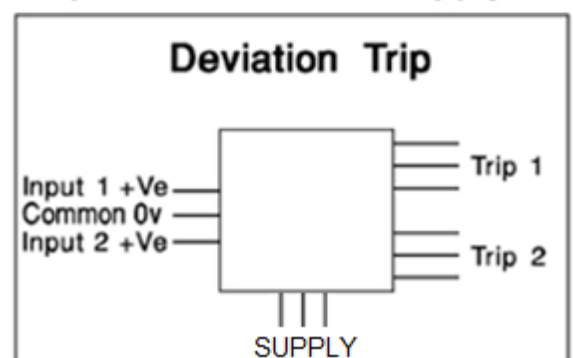
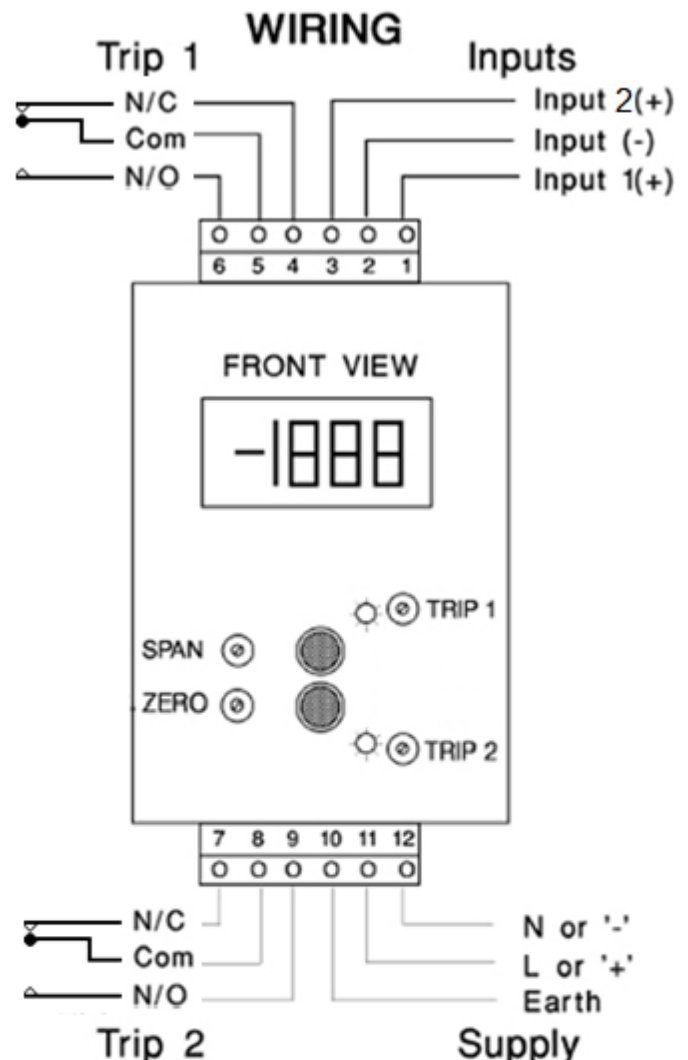
500Vdc Input/Contacts/Contacts/Supply/Earth

#### Performance

Trip settability:  $\pm 0.1\%$   
 Trip repeatability:  $\pm 0.1\%$   
 Trip deadband: 1% std, (Adjustable 1-20% span available)  
 Response time: <100ms  
 Fail Safe Relays: De-energise on Trip & Loss of Power supply)  
 Input O/C Response: Downscale drive  
 RF Immunity: 20MHz-3GHz/5.25GHz  $\leq 10\text{V/m}$ ,  
 (80MHz-1GHz/5.6GHz  $\leq 30\text{V/m}$ , 889MHz/1.75GHz  $\leq 40\text{V/m}$ )

#### 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 (Generic Industrial Levels)



#### Mounting/Dimensions

Enclosure: 50w x 75h x 182d mm  
 Din Rail (TS35) or Surface Seismic Keyhole plate or Front of Panel mounting options may be specified.  
 (Rear Keyhole plate Dims= 50w x 130h mm)

Tel: 01908-567003 Email: [sales@amelec-uk.com](mailto:sales@amelec-uk.com) Visit: [www.amelec-uk.com](http://www.amelec-uk.com) Fax: 01908-566735

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