

## ADT182 Frequency Trip Amplifier

- Suitable for SIL 1 & SIL 2 rated (EN 61508-2) safety instrumented system (SIS) loop applications, as 1oo1 architecture, (HFT:0)
- Supply Voltage options:
  - 20Vac  $\pm 20\%$
  - 115Vac  $\pm 20\%$
  - 230Vac  $\pm 20\%$
  - 24Vdc  $\pm 10\%$
  - 48Vdc  $\pm 10\%$
- RFI Protection to EN 61000-4-3:2006/A2:2010 available ('K' option)
- Front fascia Digital Display available ('DI' Option)
- Variable 0.5%-20% hysteresis available ('V' option)
- Non-Smart / Non-uProcessor based, Type A instrument
- AMELEC Standard 10 year warranty

### Technical Specifications

#### Input

Any regular pulse or repetitive waveform, including: Namur, Sine, Square or Sawtooth.  
 Minimum 25Hz calibrated span (maximum 40KHz input)  
 Input level may be anywhere between 50mV-200V pk-pk  
 Voltage pulses up to 200V or Volt free contacts (wetted with 10V @3mA)  
 Current from 100uA  
 AC/NPN/PNP/TTL/OPEN COLLECTOR/RELAY inputs may be specified  
 Up to 24Vdc @22mA I/P loop/sensor Excitation available ('M' option)

#### Output

Each Trip output has a set of changeover contacts, rated at 250VAC, 2A, 100VA (resistive). Red LED indication of each Relay status;  
 ON Energised/ Extinguish in Trip De-energised state as standard.  
 (Red/Green 'BI'-colour LED indicators optional)

#### Isolation

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

#### Performance

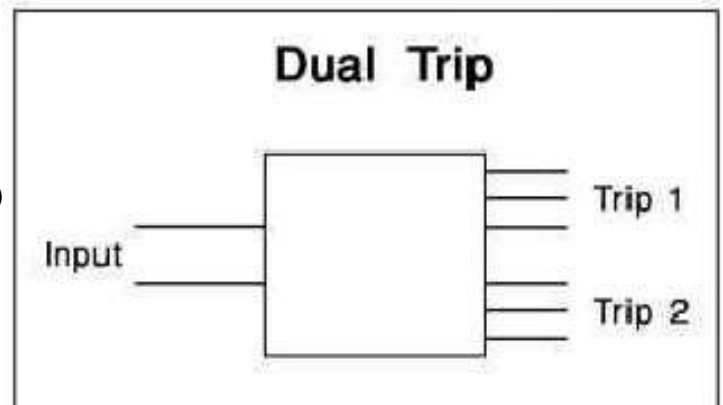
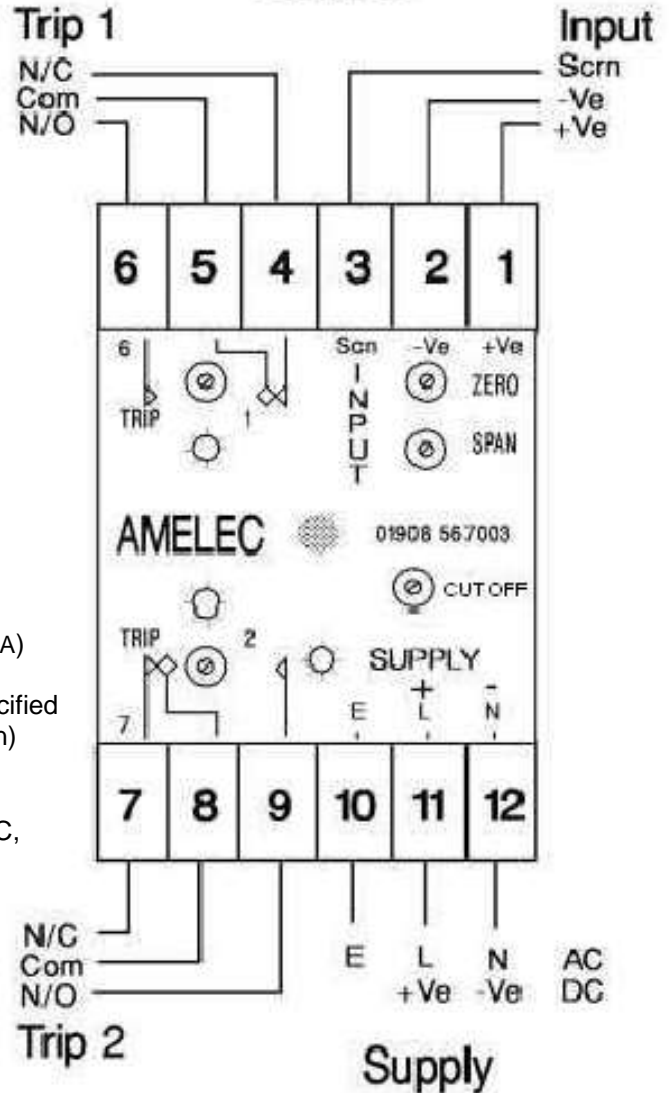
Deadband: 1% Standard (variable 1-20% span 'V' option)  
 Trip settability:  $\pm 0.1\%$   
 Trip repeatability:  $\pm 0.1\%$   
 Response time: <200ms  
 (Fixed or Variable Time delay into Trip available, 'T' option)  
 Input O/C response: Downscale drive (Upscale drive 'X' option)  
 Fail Safe: Relays De-energise on Trip & for Loss of Power

#### 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 highest Generic Industrial levels)

**Dimensions:** 50w x 75h x 110d mm ('K' option = 182 d mm)

### WIRING



#### Mounting:

Din Rail (TS35) or Surface (by Corner Fixing holes)

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