

ADT181K Frequency Trip Amplifier with single set point

- Suitable for SIL 1 & SIL 2 rated (EN61508-2) Safety Instrumented System (SIS) loop applications, as 1oo1 architecture (HFT:0)
- Supply voltage options: 115Vac $\pm 20\%$
230Vac $\pm 20\%$
24Vdc $\pm 10\%$
48Vdc $\pm 10\%$
- RFI Protection to EN61000-4-3:2006/A2:2010
- AMELEC Standard 10 year warranty
- Digital Indication of input Frequency & Trip Set Point available ('DI' option, LCD or LED)
- Non-Smart / Non-uProcessor based, Type A instrument

Technical Specifications

Input

Any regular pulse or repetitive waveform, including: Namur, Sine, Square or Sawtooth may be specified.

Minimum 25Hz calibrated span (maximum 12KHz 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)

Up to 24Vdc @22mA I/P loop/sensor Excitation available ('M' option)

Output

Trip Relay output is a set of DPCO contacts, rated at 250VAC, 2A, 100VA resistive. Red LED indication of Relay status;

ON Energised, **Extinguished** in Trip/De-energised state as standard.

Deadband

Fixed nom 1% Span Trip Hysteresis as standard.

Variable 0.5-20% span deadband available ('V' option)

Performance

Isolation: 500Vdc Input/Contacts/Supply/Earth

Trip settability: $\pm 0.1\%$

Trip repeatability: $\pm 0.1\%$

Deadband: 1% standard (variable 1-20% span 'V' option available)

Response time: <200mS (10-90% input step change)

(Fixed or Variable Time delay into Trip also available, 'T' option)

Input O/C response: Downscale drive

(Upscale drive or other special requirements also available: 'X' option)

Environmental Conditions

Storage Temperature: -40 to +70°C

Operating Ambient: -15 to +55°C

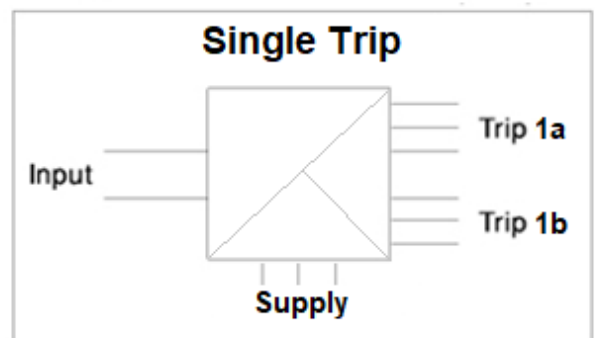
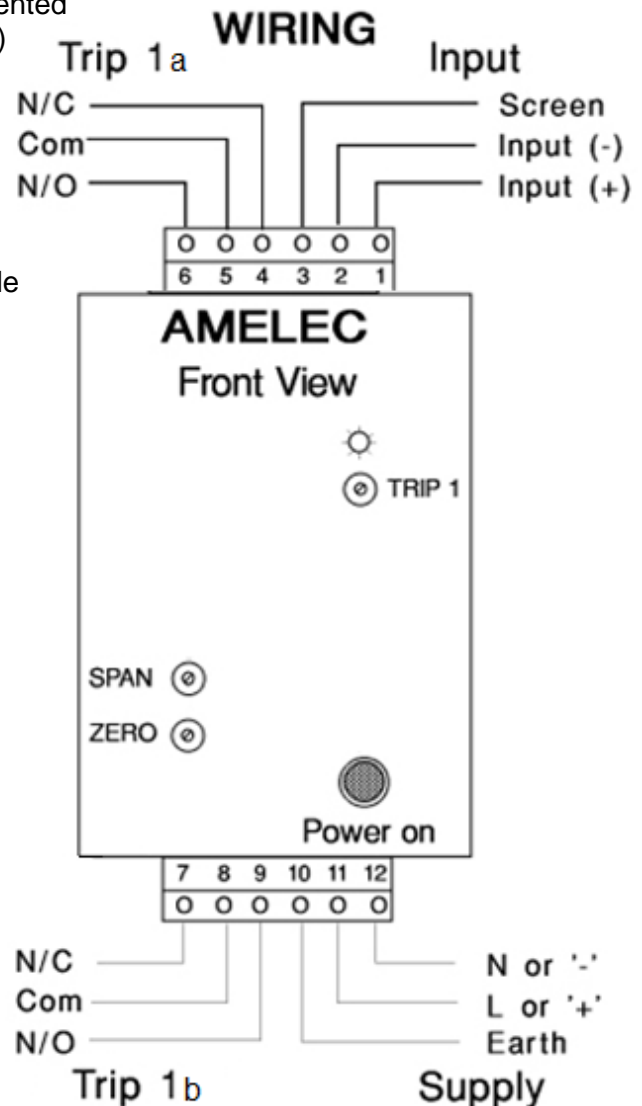
Relative Humidity: 5 – 95% RH (Non Condensing)

EMC: 2014/30/EU, EN 61326-1:2013 (Generic Industrial)

RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10V/m$,
(80MHz-1GHz/5.6GHz $\leq 30V/m$, 889MHz/1.75GHz $\leq 40V/m$)

Customer Termination

Fixed screw terminals as std. (Plug-in terminals optional)



Mounting/Dimensions

Enclosure: 50w x 75h x 182d mm

DIN Rail (TS35) mounting as standard,

Surface by Seismic Keyhole plate (50w x 130h mm) and
Front of Panel mounting options available on request.

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