

ADT182K Frequency Trip Amplifier

- Suitable for SIL 1, SIL 2 & SIL 3 rated Safety System loop applications (EN61508-2)
- 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 Points 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.
Minimum 25Hz calibrated span (maximum 12KHz span)
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)

Outputs

Each trip Relay output is a set of SPCO contacts, rated at 250VAC, 2A, 100VA resistive. Red LED indication of each Relay status; ON Energised, Extinguished in Trip/De-energised state as std.

Deadband

Fixed 1% Span Trip Hysteresis as standard.
Variable 0.5-20% span deadband available ('V' option)

Performance

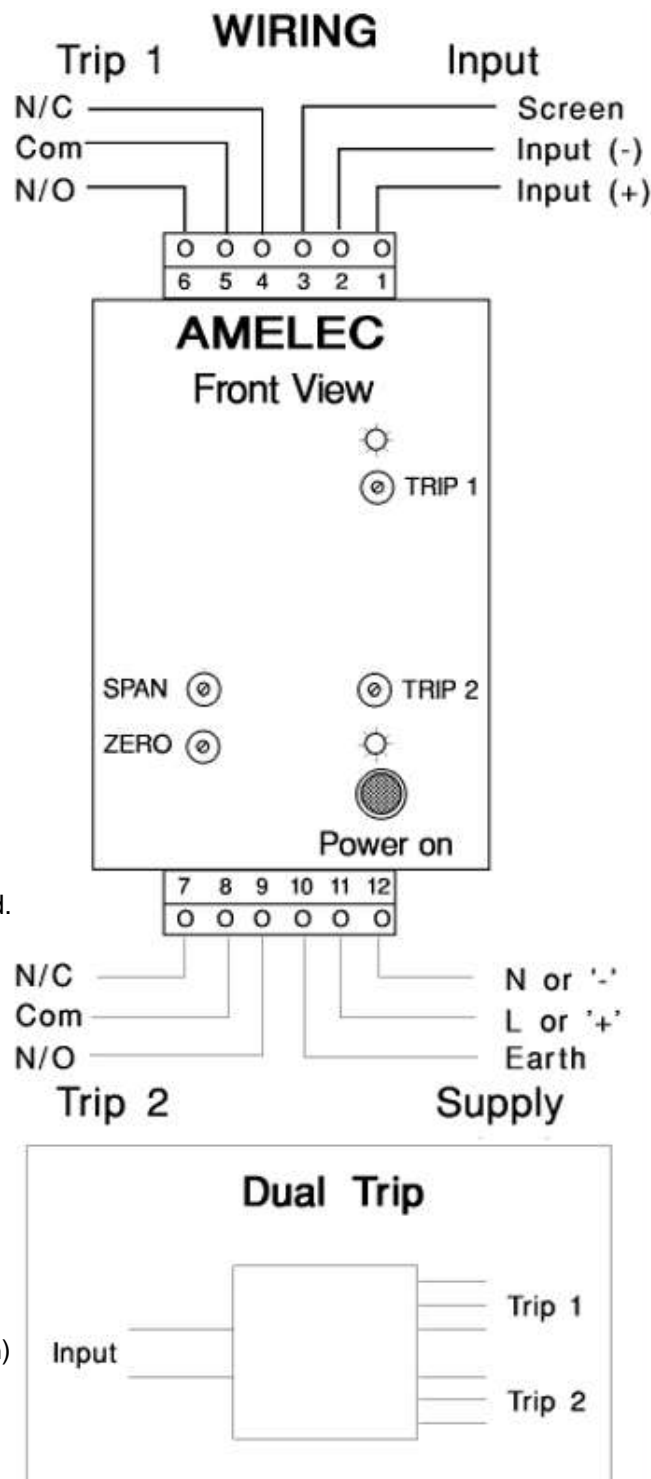
Isolation: 500Vdc Input/Contacts/Contacts/Supply/Earth
Trip settability: $\pm 0.1\%$
Trip repeatability: $\pm 0.1\%$
Deadband: 1% standard (variable 1-20% 'V' option available)
Response time: <200mS (0-100% input step change)
(Fixed or Variable Time delay into Trip also available, 'T' option)
Input O/C 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 145d mm
RFI 'K' option enclosure = 182d mm
DIN Rail (TS35) mounting as standard,
Surface by Seismic Keyhole mounting plate (50w x 130h mm)
and Front Panel mounting options available on request.

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