

ADT171DI (BI)(V)(L)(T)(K) Strain Gauge Trip Amplifier with Display

- Suitable for SIL 1, SIL 2 & SIL 3 rated (EN 61508-2) Safety Instrumented System (SIS) loop applications
- Non Smart/Non-uProcessor based, 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 ('K' option) available
- AMELEC Standard 10 year warranty

Technical Specifications

Input

Typically from any Strain, Load or Pressure sensor, with Minimum Span 4mV.
Excitation 10Vdc at up to 30mA as std. (Other voltages available on request)

Output Relay Contacts

Trip 1a output is a N/O contact as std (N/C may be requested if preferred),
Trip 1b has a set of single pole changeover contacts, rated at 250VAC, 2A,
100VA resistive. (Latching relay option also available, 'L' option)
Red LED indication of Relay status, ON Energised as standard
(Red/Green 'BI'-colour LED status indicators optional)
Fail Safe Relay De-energise on Trip & on Loss of Power as standard
Display of the Input range on a 3½ digit Front LCD as standard
(up to 4½ Digit Red LED Display options also available)
Front fascia toggle switch or Read button shows the trip set point within the
scale on the display,

Isolation

1000V RMS* Input/Excitation/Contact-Contacts/Supply/Earth
*(500Vdc when 'K' option is specified)

Performance

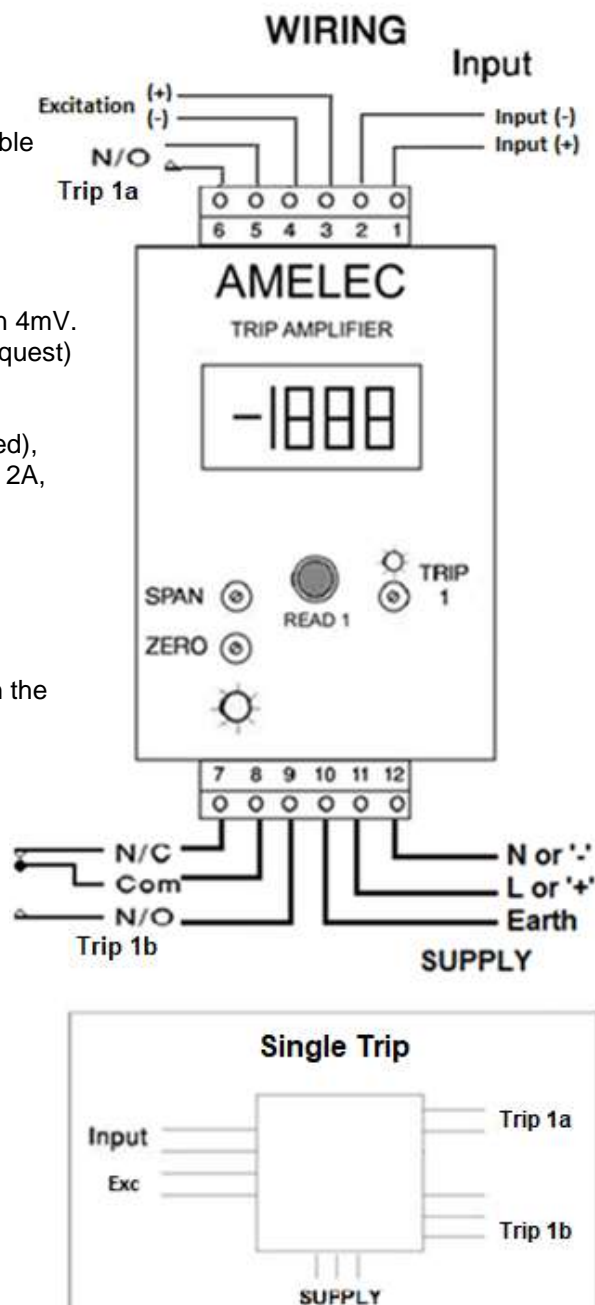
Deadband: Fixed 1% std (Variable 1-20% span 'V' option available)
Trip settability: $\pm 0.1\%$ span
Trip repeatability: $\pm 0.1\%$ span
Response time: <100mS (0-100% input step change)
(Fixed or Adjustable Time Delay into Trip: 'T' option available)
Input O/C response: Upscale drive as standard
(O/C response Downscale drive may be specified if preferred)
'K' option 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 (Controlled EM)
(‘K’ option: to the highest Generic Industrial levels)

Customer Termination

Fixed screw terminals as standard
(Plug-in terminals optional)



Mounting/Dimensions

'DI' Enclosure Dims: 50w x 75h x 145d mm
(RFI 'K' option enclosure: 50w x 75h x 182d mm)
Din Rail (TS35) mounting as Standard.
Seismic/Surface Keyhole plate (50w x 130h mm) &
Front of Panel options also available on request.
(Bezel Dims: 57w x 96h, Cut out Dims: 51w x 76h mm)