

AHT632(K) Process I/V Trip Amplifier

- 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 21 to 30Vdc as std
- RFI Protection to EN 61000-4-3:2006/A2:2010 available with 'K' option 19" Rack housing
- Amelec standard 10 Year Warranty

TECHNICAL SPECIFICATION

FUNCTION

High Trip: Relay De-energises on rising input signal.
Low Trip: Relay De-energises on falling input signal.

INPUT

Any Current or Voltage (DC) can be specified in the range of:
Current up to 100mA max (Passive port)
Voltage up to 150Vdc max (impedance 1Mohms)
Typical input: 4 – 20mA (Passive port, impedance 20ohms)

OUTPUT

The Trip output is a pair of changeover contacts, SPCO relay per set point, rated at 250VAC, 3A, 100VA (resistive).

CONTROLS

Zero / Span: 15-turn potentiometers, fitted to calibrate range when used with a Common Display module in the rack.

Set points: 15-turn potentiometer to set each Trip point within the input range.

INDICATOR

Amber Led: Power ON indicator
Red Led: Relay status indicators
(ON Energised / Extinguished in Trip/De-energised state std)

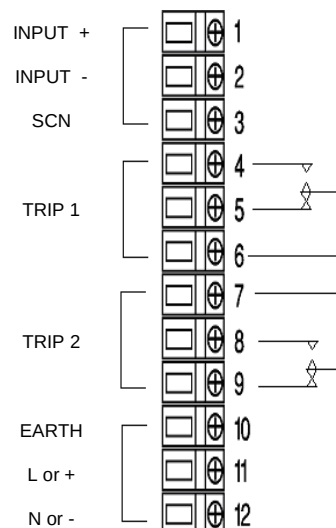
PERFORMANCE

Trip repeatability: $< \pm 0.1\%$
Response time: $< 100\text{ms}$
Trip settability: $< \pm 0.1\%$
Hysteresis: 1% span as std (1-20% Variable option available)
Input Open Circuit Response: Downscale drive as std (Upscale dive option 'X' available on request)
EMC: 2014/30/EU, EN 61326-1:2013

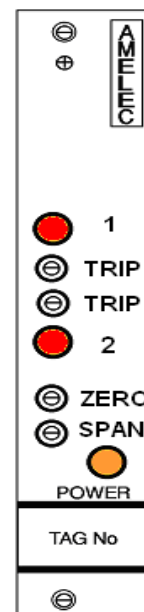
PROTECTION

Isolation: 1000V RMS*. Input/Contacts/Contacts/Supply/Earth
*500Vdc if RFI protection 'K' option housing is specified.
Internal Fuse.
Fail Safe Relays: De-energise on Trip & Loss of Power
Input over range: up to 300%

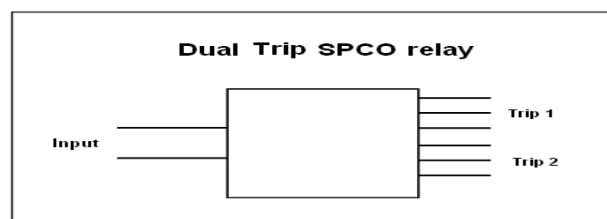
TERMINATION



FRONT VIEW



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITION

Storage temperature: - 40 to +70 °C
Operating Ambient: -15 to +55 °C
Relative Humidity: 5 to 95% RH

MOUNTING / DIMENSION

Instrument Card: 3U high 4E wide
Mounting: 19" rack / 84E wide (See rack GA for details)
Card weight: $< 200\text{g}$

ADD ON / OPTIONS

AHM990DI: Common LCD display for local monitoring
J : Input injection jack socket
P: Test point (Trip set point monitoring)
K: RFI protection to EN 61000-4-3:2006/A2:2010
(RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$, 80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz/1.75GHz $\leq 40\text{V/m}$)
AC: 115Vac or 230Vac ($\pm 20\%$) supply options available