

## AHM 712 Thermocouple Temperature Trip Transmitter

- Suitable for any BS4937 Thermocouple input
- Supply voltage 21 to 30Vdc
- Powered by rack common supply BUSS
- Amelec standard 10 year guarantee
- Suitable for SIL Level 1, 2, & 3 (IEC 61508-2)

### TECHNICAL SPECIFICATION

#### FUNCTION

Temperature input signal Converter / Isolator

#### INPUT

Can be configured to accept mV signal from thermocouple Type S, R, B, J, K, T, E, N and other special types also available on request.

Automatic Cold Junction compensation fitted as standard.

Typical input: 0 – 500 Deg °C / TC type “K”

#### OUTPUT

DC current or voltage specified in the range of:  
 Current up to 100mA max in Sink configuration (externally powered)  
 Current up 22mA max Source configuration (Internally powered)  
 Voltage any from 0.4 to 20V max @ up to 20mA.  
 Typical output range: 4 - 20mA (Source)

The Trip output is a changeover contact SPCO, rated at 250VAC, 2A, 100VA (resistive).

#### CONTROLS

Zero / Span: 15 turn potentiometers to calibrate Output.  
 Set point: 15 turn potentiometer to set Trip point within set Input range.

#### INDICATOR

Amber Led: power ON indicator  
 Red Led: Relay status indicator

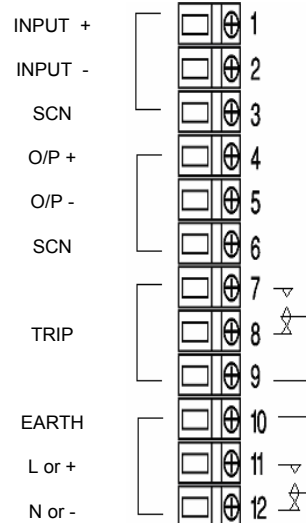
#### PERFORMANCE

Response time: Typically < 400ms  
 Linearity :  $\pm 0.1\%$   
 Trip repeatability: <  $\pm 0.1\%$   
 Trip settability: <  $\pm 0.1\%$

#### PROTECTION

Isolation 1000V RMS\*. Input/Output/Supply  
 \*500VDC if RFI option (K) is specified.  
 Internal Fuse.  
 Fail safe on loss of power  
 Input over range typically at 300%.  
 Output Saturation 125%

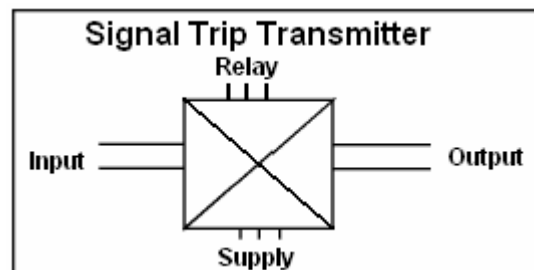
#### TERMINATION



#### 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

Card 3U high 4E wide  
 Mounting 19" rack / 84E wide (See rack GA for details)  
 Card weight < 200g

#### ADD ON / OPTIONS

DI: Common LCD display for local monitoring  
 J : Input injection jack socket  
 P: Test point (Trip set point monitoring)  
 K: RFI protection to IEC801-3  
 Non standard Power supply ranges available