

THERMOCOUPLE INPUT ISOLATED 2-WIRE TRANSMITTER

TCI-2

- ACCURACY OF 0.1%
- TEMPERATURE LINEARIZED
- COMPLETE GALVANIC ISOLATION
- DIN RAIL MOUNTING
- 3-YEAR WARRANTY



The TCI-2 is an isolated two-wire transmitter which converts the Thermocouple voltage into a temperature linearized, load-independent, 4-20mA process current.

An outstanding linearization performance is achieved by eight segment piece-wise linearization circuitry.

A unique input to output high common mode rejection (CMR) and high degree of filtering, eliminate false output signals and provide a low ripple output current.

The unit is a multi-ranged unit. Calibration is performed by means of an internal DIP switch array for the coarse range setting and two (Zero and Span) front accessible multi-turn potentiometers which are used for the final fine-tuning.

The TCI-2 is equipped with "test" terminals which allow monitoring of the output current by measuring the voltage drop across a 10 Ω internal resistor, without opening the current loop.

The unit is housed in a polycarbonate plastic enclosure mounted on a standard DIN rail.

The TCI-2 units can be placed side by side, with no wasted space in high density installations.

SPECIFICATIONS

TCI-2

INPUT: Thermocouple type K, T, J, E, R, S, B

BURNOUT PROTECTION: Upscale

MINIMUM INPUT SPAN : 4mV

CALIBRATION:

Three "Zero" DIP switches

Three "Span" DIP switches

and two fine-tuning potentiometers

COLD JUNCTION COMPENSATION ERROR:

typical $\pm 0.9^{\circ}\text{C}$ for $0-60^{\circ}\text{C}$ change ($\pm 3^{\circ}\text{C}$ for R and S)

OUTPUT CURRENT: 4 - 20 mA (25mA limited)

RESPONSE TIME: 160 msec (0-98%)

TEST TERMINALS: 40 - 200 mV represents 4 - 20 mA

SUPPLY VOLTAGE: 9.5 - 40 Vdc reverse polarity protected

ISOLATION: 1500 Vdc or peak AC

SUPPLY VARIATION EFFECT: $< \pm 0.03\%$ of span for full change

ACCURACY and LINEARITY (refer to temperature input):

$< \pm 0.08\%$ of T/C full span (typical)

LOAD RESISTANCE: $R_{\text{max}} (\Omega) = (V_{\text{supply}} - 9.5) / .02$

TEMPERATURE STABILITY: $< \pm 0.01\%$ of span/ $^{\circ}\text{K}$

OPERATING TEMPERATURE:

-20 to $+70^{\circ}\text{C}$

Option: -30 to $+85^{\circ}\text{C}$

STORAGE TEMPERATURE: -30 to $+85^{\circ}\text{C}$

HUMIDITY: 5 - 95% relative, non condensed

HOUSING: Plastic polycarbonate

PROTECTION LEVEL:

Box: According to IP-40

Terminals: According to IP-20

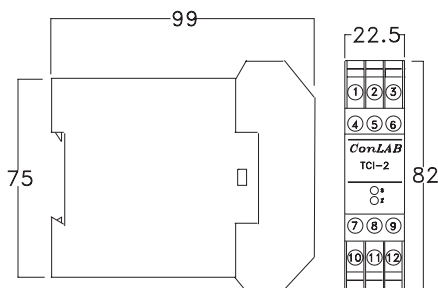
MOUNTING: Standard 35 mm DIN rail

WEIGHT: 130 grams

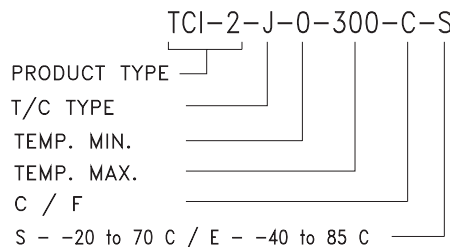
T/C Types and ranges

SENSOR TYPE	CALIBRATION RANGE $^{\circ}\text{C}$		MINIMUM SPAN $^{\circ}\text{C}$
	min	max	
K	0	1350	100
J	0	760	100
T	0	400	100
E	0	1000	100
R	0	1700	650
S	0	1700	650
B	0	1700	650

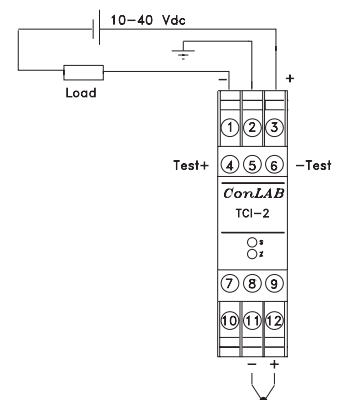
Dimensions (mm)



Ordering Information



Connection Diagram



data subject to change without notice

