

# Thermocouple Transmitter v4 TCT226

## DESCRIPTION

The TCT226 is a loop powered isolating transmitter that offers an economical solution combining compactness with accuracy and flexibility.

The TCT226 is ideal for field enclosures or as a space saver in larger control cabinets. Standard output is 4-20mA with a minimum supply voltage of 8V. This enables the TCT226 to be used in 12V battery supply systems or in automotive applications.

Other factory set output configurations are 10-50mA loop powered and various 3-wire outputs.

Double surge protection is standard with all Series 200 loop powered transmitters to prevent failure due to spikes induced by DC switched inductive loads. The TCT226 can accept any type of thermocouple input. The thermocouple conditioning features:

- ⇒ Automatic cold junction compensation.
- ⇒ Front-end zero suppression via 15 turn potentiometer.
- ⇒ Configurable upscale or downscale burnout.

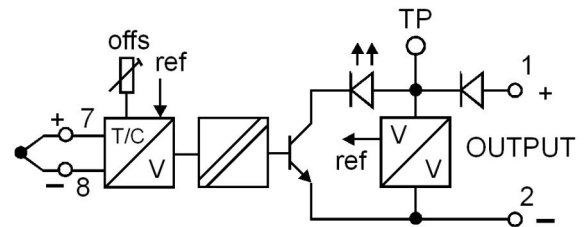
Final calibration is trimmed using the front accessible zero and span 15-turn trim adjustments. A front mounted LED and a test socket verify module function and assist in calibration checks without disconnection of output wires.



## General Specifications

Size:	23.5W x 71.5H x 109D (mm).
Mounting:	Clip for 35mm DIN-Rail.
Housing material:	abs.
Connection:	Screw terminals.
Weight:	0.100 kg.
Protection class:	IP40.
Cal. Accuracy:	<0.5% of range.
Repeatability:	<0.5% all ranges.
Operating temperature range:	-10...+65°C.
Cold junction compensation:	0.02% per °C C/J change.
Loop supply voltage:	8 - 40V continuous (50V 30 seconds).
Load for 4 - 20mA output:	$RL_{max} = \frac{SupplyVoltage - 8V}{0.02A} \Omega$
Supply voltage 3-Wire:	12 - 40V continuous (50V 30 seconds).
Load change effect:	0.1% up to RL max.
Response time:	0.2 sec for T <sub>90</sub> .
Input offset adjustment:	200% of range.
Front zero adjustment:	+20% / -10% typical.
Front span adjustment:	±25% typical.
Internal Offset Adjust:	±50%.
Input range:	4mV up to 80mV.
Input impedance:	> 1MΩ.
Input/output isolation:	> 2kV rms.
Electromagnetic compatibility:	Complies with AS/NZS 4251.1 (EN 50081.1)

## Block Diagram



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

