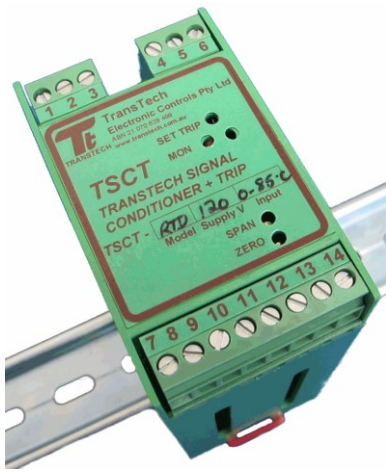


## MODEL:- TSCT-XXX

Powered Transmitter with Trip Series



### GENERAL DESCRIPTION

The TSCT-XXX signal conditioner series accepts a range of inputs such as mA dc, mV dc, DC Volts/Current, RTD, TC and Slide wire and provides a proportional standard instrument output in mA dc or Volts dc. **In addition** the TSCT-XXX offers a single changeover relay output for a high or low alarm.

The TSCT-XXX series are mains powered devices offering true 3 port galvanic isolation between input – output - power supply and providing a transmitted output that gives true zero output or any standard instrument signal in mA dc or mV dc or Volts dc.

### FEATURES

- ◆ All standard inputs are link selectable
- ◆ Input monitor 0 - 10Vdc = 0 - 100%
- ◆ Full 3 Port galvanic isolation
- ◆ Externally accessible span/zero pot's (non-interactive)
- ◆ Plug off terminals for easy removal from service
- ◆ Two outputs as standard :- 0 to 10Vdc and a selected one (e.g. 4 - 20mA)
- ◆ Single Trip Relay c/o contact – configurable.
- ◆ Krilen housing non-combustible material
- ◆ Very small footprint area

### Power Supply.

Nominal 120, 220/240 (40-60Hz) +/- 15%  
24Vdc (20-32Vdc), 48Vdc (18 – 60Vdc) 110Vdc  
Typically 2.0VA

### Input (link selectable)

ACV Up to 600Vac  
ACI 1 amp or 5 Amp input  
mV dc 0-1mV up to 0-1000mV  
V dc 0-1V, 0-2V, 0-5V, 0-10V up to 300V max  
mA dc 0-1mA, 0-5mA, 0-10mA, 0-20mA, 0-50mA, 4-20mA, 10-50mA etc

### Input Impedance

Thermocouple J, K, T, R, S, T Range 0 – 1000 Deg. C  
RTD PT-100, PT-1000 2 and 3 wire.  
Frequency Switch, Proximity or Frequency,

### Others inputs upon request

### Output (two as standard)

No 1 (fixed) 0-10Vdc  
No 2 (selected) 4-20mA etc. (max loop load 900 Ohms).

### Output Trip as standard.

Relay A Form C changeover contact  
Rated 24Vdc @ 1Amp / 120Vac @ 0.5Amp

### Other ranges outputs upon request (Including bi-polar + / 0 / -).

### GENERAL SPECIFICATION

Accuracy 0.1% of span  
Linearity 0.1% of span  
Repeatability 0.1% over 10,000 hrs.  
Common Mode RR 120dB  
Response time 10 to 90% step in 250mSecs  
Drift 0.03% of span per Deg. C  
Isolation level 2500Vrms between input, output and power supply

### Controls & Indication

External Span/Zero adjust and external Monitor 0-10Vdc

### Operating Temp

0 to 60 Deg. C

### Storage Temp

0 to 75 Deg. C

### Terminals

Self-opening 2.5mm/12AWG

### Housing Material

KRILEN (non-combustible)

### Mounting Style

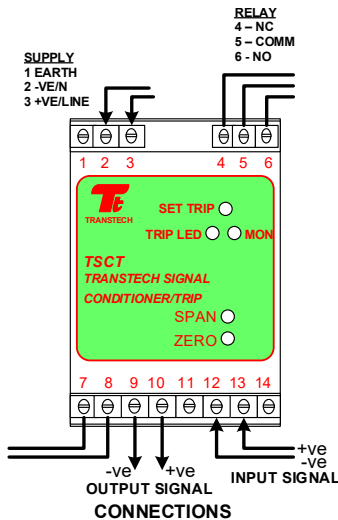
DIN (or G rail with adaptor)

### Dimensions

105mm X 75mm X 45mm (H x D x W)

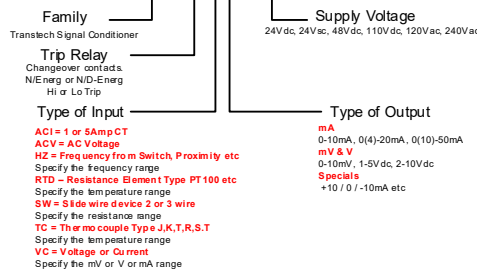
### Weight

130 grams

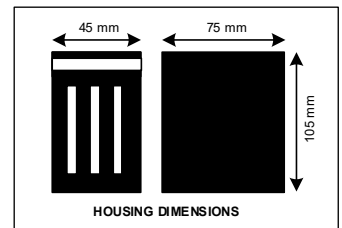


### PART NUMBERING

#### TSCT-VC-240V



#### TSCT-VC-240VAC



## MODEL:- TSCT-XXX

Powered Transmitter with Trip Series



Terminal #	INPUT TYPE (THE SUFFIX eg TSC-VC)													
	VC/mV	mA	TWTX	TC	RTD	SW	HZ/Freq	N.Prox	3W Prox	HZ/Sw	HZ/Electr	ACV	ACI	
	Volts or mV	Milliamps	Two Wire Trans	Themocouple	3 Wire	3 Wire	Frequency		PNP			AC Volts	AC Current	
14	-	-	+ve	-	1	1	-	-ve	+ve	1	-ve	ACV	5A	
13	+ve	+ve	-ve	+ve	2	2	+ve	+ve	switch	2	+ve	-	1A	
12	-ve	-ve	-	-ve	3	3	-ve	-	-ve	-	-	COMM	COMM	

### CONNECTION INFORMATION

INPUT RANGE	SWITCH SET TO ON (right)
0-1V	3
0-2V	4
0-5V	5
0-10V	6
0.4-2.0V	1 & 4 & 7
1-5V	1 & 8
2-10V	1 & 9 & 7
0-1mA	9 & 12
0-5mA	10 & 13
0-10mA	3 & 14
0-20mA	3 & 15
0-50mA	3 & 16
1-5mA	1 & 11 & 13
4-20mA	1 & 11 & 15
10-50mA	1 & 11 & 16

TOP COVER REMOVED

All TransTech signal conditioners are normally factory set to calibration details supplied by the customer. If field adjustments are necessary the following steps should be taken:-

If the range selection module (optional) is not fitted, re-calibration can be done by AOT resistor changing, in this case contact the factory.

#### CALIBRATION & TRIP SETTING

- Remove the top cover and set SW1 to required trip function as per chart bottom left.
  - Set the input signal to zero and adjust the zero adjustment potentiometer on the top of the module to give 0.000V D.C at the 0-10V output (7-ve / 8+ve).
  - Set the input signal to maximum and adjust the span potentiometer on the top of the module to give 10.000V at the 0-10V output (7-/8+V).1
- The input is now fully calibrated as the span and zero adjustments are not inter-reactive.
- The input trip is set via the set trip potentiometer on the top of the module. The monitor has a range of 0 -10V D.C which is directly proportional to 0 - 100% of input signal, ie 5V = 50%, 7.5V = 75%, 10V = 100%.
  - Set trip level via the set trip potentiometer to give required trip point.

**Note: Do not connect monitor 0V to Term 12.**

- Adjust the input to the trip point and monitor the status of the relay to confirm trip point is correct.

#### RELAY & LED STATUS SETTINGS (see table on left)

##### Actions for trip on INCREASING signal (Hi)

###### DIP Setting 011001

Signal below = LED off / RELAY Energised

###### DIP Setting 011010

Signal above = LED off / RELAY De-energised

###### DIP Setting 100101

Signal below = LED on / RELAY De-Energised

###### DIP Setting 100110

Signal above = LED on / RELAY Energised

##### Actions for trip on FALLING signal (Lo)

###### DIP Setting 011001

Signal below = LED on / RELAY De-energised

###### DIP Setting 011010 (factory default setting)

Signal above = LED on / RELAY Energised

###### DIP Setting 100101

Signal below = LED off / RELAY Energised

###### DIP Setting 100110

Signal above = LED off / RELAY De-energised

**LED set by A-B-C-D**

**RELAY set by E-F**

RELAY FUNCTION	SWI					
	A	B	C	D	E	F
HIGH/N-ENG	X	X			X	
HIGH/N-DE-ENG		X	X			X
LOW/N-ENG	X			X	X	
LOW/N-DE-ENG	X			X		X

X = SWITCH ON

### TRIP RELAY SETTINGS