

MODEL:- TSC-XXX Powered Transmitter Series



GENERAL DESCRIPTION

The TSC-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.

The TSC-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.

The TSC-XXX series can have an optional single additional trip – this is the TSCT-XXX series

TECHNICAL DATA

Power Supply.

Nominal	24, 120 & 220/240 (40-60Hz) +/- 15%
	24Vdc (20 – 32Vdc), 110Vdc
VA Rating	Typically 2VA

Available Inputs

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	Varies with input type
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 ranges and inputs upon request

Output (two as standard)

No 1 (fixed)	0-10Vdc fixed and not isolated from supply.
No 2 (selected)	4-20mA etc. (max loop load 900 Ohms)
Special Outputs (added cost)	Bi-polar output eg:- +10V to -10V for 0-10V Input

Other ranges and outputs upon request, (including bi-polar + / 0 / -).

GENERAL SPECIFICATION

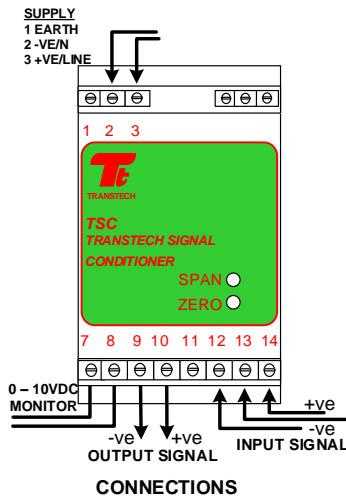
Accuracy	0.1% of span
Linearity	0.1% of span
Repeatability	0.1% over 10,000 hrs.
Common Mode RR	120dB
Response time	10 to 90% step in 250mSecs
Drift	0.03% of span per Deg. C
Isolation level	2500Vrms between input, output and power supply

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
Weight	130 grams

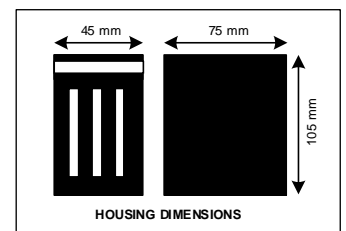
FEATURES

- ◆ 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)
- ◆ Krilen housing non-combustible material
- ◆ Very small footprint area



Terminal #	INPUT TYPE												
	V/mV	mA	TWTX	TC	RTD	SW	HZ/Freq	N.Prox	3W Prox	HZ/Sw	HZ/Electr	ACV	ACI
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



MODEL:- TSC-XXX

Powered Transmitter Series

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 required input is within 10% of the calibration setting, then the unit may be recalibrated by the user (if meters of the required accuracy are to hand) by adjusting the front panel span and zero controls.

If the required input span is outside the adjustment range of the span and zero controls contact the factory.

FIELD CALIBRATION for TSC-XXX

1. 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).
2. 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 loop-current will be correct as it is directly linked to the 0 to 10V output.

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