

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

Input (link selectable)

mV dc 0-1mV up to 0-1000mV
0-1V, 0-2V, 0-5V, 0-10V
V dc 0-1mA, 0-5mA, 0-10mA, 0-20mA,
0-50mA, 4-20mA, 10-50mA etc

10Mohm
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 ranges and inputs upon request

Output (two as standard)

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

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

GENERAL SPECIFICATION

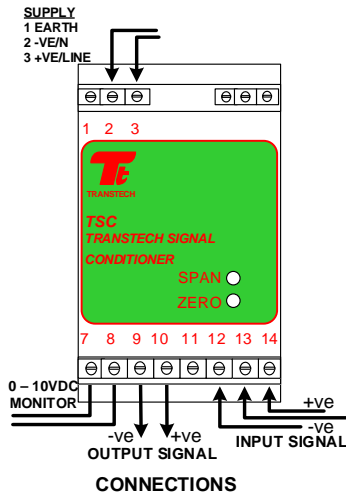
Accuracy 0.1% of span
Linearity 0.1% of span
Repeatability 0.1% over 10,000 hrs.
Common Mode RR 120dB
Response time 10 to 90% step in 250mSecs
Drift 0.03% of span per Deg. C
Isolation level 2500Vrms between input,
output and power supply

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

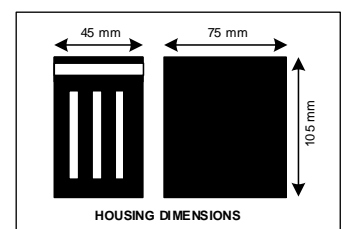
FEATURES

- ◆ 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



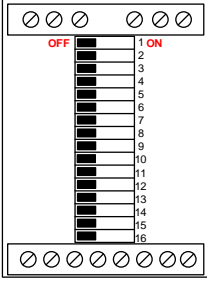
Terminal #	Type of Input											
	V/mV	mA	TWTX	TC	RTD	SW	HZ/Freq	N.Prox	3W Prox PNP	HZ/Sw	HZ/Electr	HV
14	-	-	+ve	-	1	1	-	-ve	+ve	1	-ve	+ve
13	+ve	+ve	-ve	+ve	2	2	+ve	+ve	switch	2	+ve	-
12	-ve	-ve	-	-ve	3	3	-ve	-	-ve	-	-	-ve

CONNECTION INFORMATION



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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 & 8 & 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 for TSC-VC version only

1. Remove the top cover and set SW1 to required range as per chart..
2. 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).
3. 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.

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