

PSC-TX-12V, 24V, 48V

Configurable Transmitters for Active or Passive input



GENERAL DESCRIPTION

The PSC-TX is a powered signal conditioner whose inputs may be connected to either a passive or active mA source such as a field transmitter and the PSC-TX gives a proportional active (powered) standard instrument output in mA or Vdc.

The PSC-TX is a true 3 port galvanically isolated transmitter that can give true zero output or any standard instrument signal in dc mA, mV & V.

FEATURES

- ◆ 3 Port galvanic isolation
- ◆ Both DIN and G Rail mounting
- ◆ 0 to 10 Vdc monitor points
- ◆ Connect for either “passive or active”
- ◆ External loop supply for 2 wire transmitters (20Vdc at 25mA)
- ◆ External span and zero (non-interactive)
- ◆ Very small footprint area
- ◆ Two outputs as standard :- 0 to 10V dc and a selected output (e.g. 4 - 20mA)
- ◆ Special Customer input/outputs upon request

Power Supply

Power Supply 12Vdc, 24Vdc or 48VDC (20 to 70Vdc)
VA Rating Typically 1.6VA

Inputs and Outputs

Inputs (connected for either passive or active)

V dc input 0-1V, 1-5V, 0-10V, 0-100V
mA dc input 0-20mA, 4-20mA (Load 50 ohms)
Transmitter drive 4-20mA (drive = 18vdc nom)

Output (two as standard)

No 1 (fixed) 0-10Vdc (monitor)
No 2 (selected) 4-20mA into 1,000 ohms

General Specification

Accuracy 0.1% of span
Linearity 0.1% of span
Repeatability 0.1% over 10,000 hrs
Common Mode 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 External monitor (0-10Vdc)
Operating Temp 0 to 60 Deg C
Storage Temp 0 to 75 Deg C
Terminals Selfopening 2.5mm/12AWG Housing material KRILEN
Mounting Style DIN & G Rail
Dimensions 79mmX106mmX25mm
Weight 140 grams

Calibration & Set-up Instructions - field:-

The PSC-TX signal conditioner is a multi-function device which accepts both Volts and mA inputs.

The PSC-TX is normally factory set to calibration details supplied by the customer. If field adjustments are necessary the following steps should be taken to set the internal switches:-

Set SW1 (range switch) to required input range from chart above, more see below:-

SW1 settings

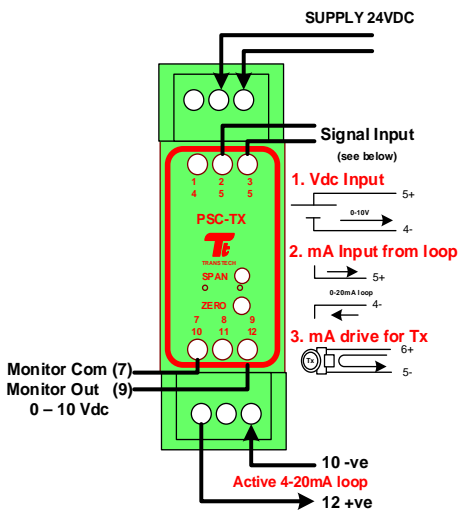
a) Voltage inputs
0 - 1v set 2 = ON balance OFF
1 - 5v set 3,6 = ON balance OFF
0 - 10v set 5 = ON balance OFF

b) mA input (sink or source)
0 - 20mA set 1,2 = ON balance OFF
4 - 20mA set 1,4,6 = ON balance OFF

Set the input signal to zero and adjust the zero adjustment potentiometer to give 0.000Vdc at the monitor output.

1. Set the input signal to max and adjust the span adjustment potentiometer to give 10.000Vdc at the monitor output.

The unit is now fully calibrated as the span and zero adjustments are not inter-reactive.



CONNECTION DIAGRAM

Available Models:

PSC-TX-12Vdc (specify input / output)
PSC-TX-24Vdc (specify input / output)
PSC-TX-48Vdc (specify input / output)

SWITCH SETTINGS

