

## MODEL:- LPSC-xxx

Loop Powered Signal Conditioner series 4-20mA Loop Powered



### GENERAL DESCRIPTION

The LPSC-xxx is a series of loop powered two wire transmitters, the LPSC draw energy from the 4-20mA loop to function and at the same time provides a proportional 4-20mA signal relative to the input.

The LPSC series accommodates inputs such as AC voltage, AC Current from CT, millivolts dc, Volts dc, milliamps dc, RTD, T/C and a SW (slide wire) inputs.

### TECHNICAL DATA

<b>Supply Voltage</b>	12Vdc to 48Vdc
<b>Supply Power</b>	Loop powered
<b>Two Port Isolation</b>	1500V nominal
<b>Input Types available:</b>	
<b>ACI</b>	CT secondary either 1Amp or 5Amp
<b>ACV</b>	0-300Vac
<b>RTD</b>	3 Wire PT-10, PT-100, PT-1000 - <b>Min Span 30Deg C</b>
<b>SW (slide wire)</b>	2 & 3 Wire 0-5k Ohm, 0-10k Ohm - <b>Min Span 10 Ohms</b>
<b>T/C</b>	E, J, K, N, S, T <b>Min Span 8mV</b>
<b>VC</b>	0-300V or 0-50mA – <b>Min Span 5mV or 1mA</b>
<b>Output</b>	4 to 20mA only
<b>Loop Resistance</b>	Approx. 250 ohms/loop maximum

### FEATURES

- ◆ Full galvanic isolation
- ◆ Both DIN and G Rail mounting
- ◆ External monitor points (40 to 200mV)
- ◆ External span and zero
- ◆ Very small footprint area 25mm wide

### GENERAL SPECIFICATION

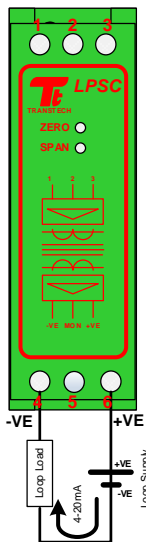
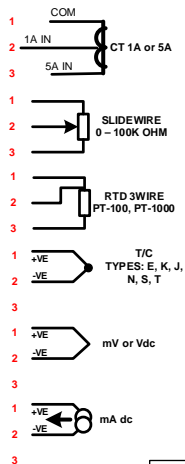
Supply Voltage	12 to 48Vdc
Loop Resistance	250 ohms
Long term drift	< 0.1% of span per 10,000hrs
Isolation Level	1500V dc.
Creepage distance	≥2.5mm. (port to port)
Output Noise	3.2µA rms. (typical).
Accuracy	0.25% of span
Linearity	0.25% of span
Repeatability	0.25% over 10,000hrs
CMR (50/60Hz)	Typically 110dB
Response time	Nominally 250mS 10 to 90% step
Operating Temp	-25 to 75 Deg. C
Storage Temp	-55 to 85 Deg. C
Terminals	Self Opening 2.5mm <sup>2</sup>
Housing Material	KRILEN
Dimensions	79mm X 85mm X 25mm
Weight	130 grams

### Load Calculation:

The LPSC series work on a wide voltage range, the maximum load can be calculated as below:

$$\text{Load (ohms)} = \frac{V_{\text{supply}} - 12}{0.020}$$

### INPUTS CONNECTIONS

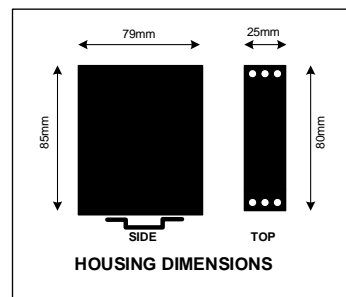


### CONNECTIONS

### CALIBRATION & SET-UP INSTRUCTIONS:-

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 :-

1. Apply the minimum signal to the input (0 Deg C)
2. Adjust the output signal to its minimum level of 4 mA by adjusting the zero potentiometer.
3. Apply the maximum signal to the input (max Deg C)
4. Adjust the output signal to its maximum level of 20 mA by adjusting the span potentiometer.



### HOUSING DIMENSIONS