

DATA SHEET – Process Automation– Loop TX.

MODEL:- LPSC-xxx

Loop Powered Signal Conditioners series 4-20mA Loop Powered



The LPSC-xxx is a series of loop powered two wire transmitters, the LPSC draws 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.

FEATURES

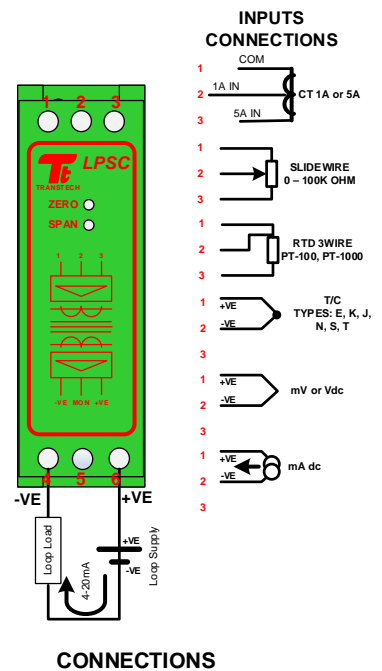
- Full galvanic isolation
- Both DIN and G Rail mounting
- External monitor points (40 to 200mV)
- External span and zero
- Very small footprint area 25mm wide

GENERAL SPECIFICATION

Supply Voltage	1	2 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 ²
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: $\text{Load (ohms)} = \frac{V_{\text{supply}} - 12}{0.020}$

TECHNICAL DATA

Supply Voltage	12Vdc to 48Vdc
Supply Power	Loop powered
TwoPort Isolation	500V nominal
Input Types available:	
ACI	CT secondary either 1Amp or 5Amp
ACV	0-300Vac
RTD	3 Wire PT-10, PT-100, PT-1000 - MinSpan 30Deg C
SW (slide wire)	2 & 3 Wire 0-5k Ohm, 0-10k Ohm - MinSpan 10 Ohms
T/C	E, J, K, N, S, TMin Span 8mV
VC	0-300V or 0-50mA – Min Span 5mV or 1mA
Output	4 to 20mA only
Loop Resistance ¹	Approx. 250ohms/loop maximum

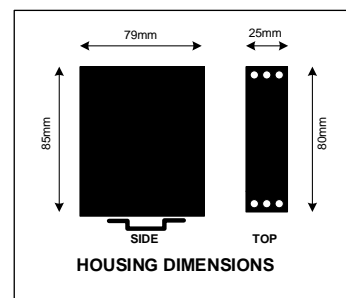


CONNECTIONS

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.



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Design changes may occur in the interests of product performance & development
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