

# DATA SHEET – Process Automation– Loop Isolation

## MODEL:- LRD-24v

24v Powered Loop Repeater 2Channel

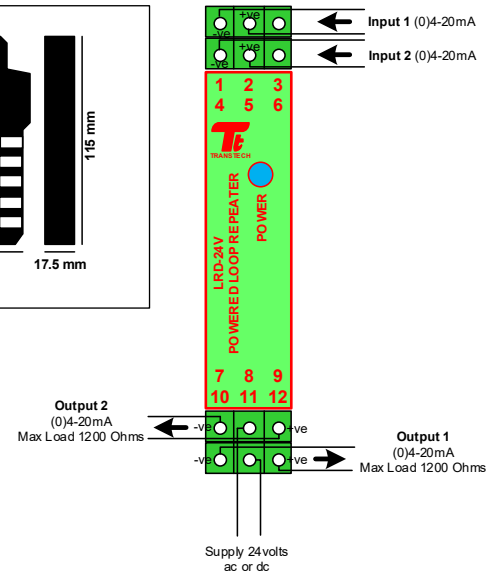
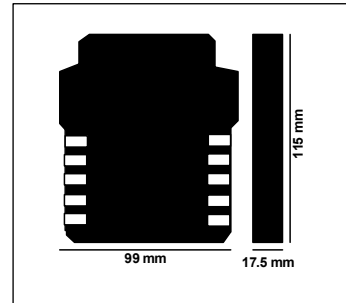


The LRD-24V is a “Universal” powered, five port isolated, loop repeater that offers up to 1500V isolation between ports. The input power for the LRD-24V is not polarity sensitive. The LRD-24V can be used as a noise filter or reducer of common mode noise in some current loops. Further, the LRD-24V may be linked on its input to give a single input and fully isolated dual output device.

The LRD-24V output currents are independent of the loop resistance up to the 1200ohm limit. The LRD-24V is factory calibrated and there are no user accessible adjustments required.

### FEATURES

- Wide operating supply range 10 - 72V
- True five (5) port isolation
- Common 0V's have no effect (including Supply V)
- Port-port creepage distance  $\geq 2.5\text{mm}$
- No user adjustment required
- Optical Isolation
- In excess of 1200 ohms loop resistance
- DIN rail mounting
- Very small footprint of 17.5mm width



**SCHEMATIC DIAGRAM**

### TECHNICAL DATA

Supply Voltage	24Vac/dc nominal (10V to 72V ac / dc)
Supply Power	650mW plus loop power
Five Port Isolation	1500V nominal
Input Range 2 channel	0(4) to 20mA
Optional Single input	Link terminals 1 & 5
Output range 2 channel	0(4) to 20mA
Loop Resistance	1200 ohms/loop maximum
ESD Protection	Nominally 15kV (all ports) (IEC 61000-4-2)
Power Indicator	Blue LED

### GENERAL SPECIFICATION

Supply Voltage	10 to 72Vdc	Operating Temp	-25 to 75Deg. C
Loop Resistance	1200 ohms	Storage Temp	-55 to 85 Deg. C
Long term drift	<0.1% of span per 10,000hrs	Terminals	Self Opening 2.5mm <sup>2</sup>
Isolation Level	1500V d.c	Housing Material	KRILEN
Creepage distance	$\geq 2.5\text{mm}$ . (Port to Port)	Dimensions	79mm x 106mm x 25mm
Output Noise Level	3.2 $\mu\text{A}$ rms (typical).	Weight	135grams
Accuracy	0.1% of span		
Linearity	0.1% of span		
Repeatability	0.1% over 10,000hrs		
CMR (50/60Hz)	Typically 110dB		
Response time (to 1%)	Nominally 100mS		

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