

# RTD Transmitter

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NEPEAN ELECTRONICS



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

The product provides isolated PT100 temperature sensor transmitter, used to convert the RTD resistance value to 4-20mA scaled at 0-150 degrees. The transmitter has linear and long-term compensation, in accordance with national standards PT100 indexing table calibration provides 0.2% accuracy. Input, output, and auxiliary power supply is completely isolated (three isolation) and can withstand 2500VDC isolation voltage.

Product uses international standard DIN35 for mounting. Transmitter is compact, high precision, stable performance, cost-effective and has a broad range of applications including use in mining petroleum, chemical, power, instrumentation and industrial control industries.

## Features

- One input: PT100 (-200 ~ +600°C) (scope optional)
- Also can choose PT1000/Cu50/PT10/Cu100
- One output: 4-20mA/0-5V/0-10V standard signal
- Accuracy: 0.2 (FSR%)
- Containing linear and long-term compensation
- Power supply: 5V/12V/15V/24VDC
- Isolation voltage: 2500VDC (1mA, 60S)
- Three isolation: input/output/power supply
- Installation: DIN35 rail
- Industrial temperature range: -40 ~ + 85°C
- Size: 79.0 x 69.5 x 25.0mm

## Specifications

	X0429	X0453
<b>Signal Input</b>	PT100	
<b>Temperature Range</b>	0-150°C	0-250°C
<b>Signal Output</b>	4-20mA	
<b>Aux. Voltage</b>	24V DC	
<b>Accuracy</b>	0.2% relative to temperature	
<b>Input</b>	Three Wire, Four Wire or Two Wire RTD PT100 as standard (PT1000, Cu50 & Cu100 thermal resistance optional)	
<b>Output</b>	Standard as 4-20mA (0-20mA or under defined optional)	
<b>Auxiliary Voltage</b>	24V DC standard, 5V, 9V or 15V optional	
<b>Power Usage</b>	<1W	
<b>Temperature Drift</b>	50ppm/°C	
<b>Load Capacity</b>	Voltage Output ≥ 2kΩ	
<b>Current Output</b>	≤ 450Ω	
<b>Isolation</b>	input/output/aux voltage isolation	
<b>Isolation Voltage</b>	2500V DC, 1minute, leakage current (1mA)	
<b>Impact Voltage</b>		
<b>Operating Temperature</b>	-40 to 85°C	
<b>Operating Humidity</b>	10 – 90% (no condensation)	

## Ordering Information

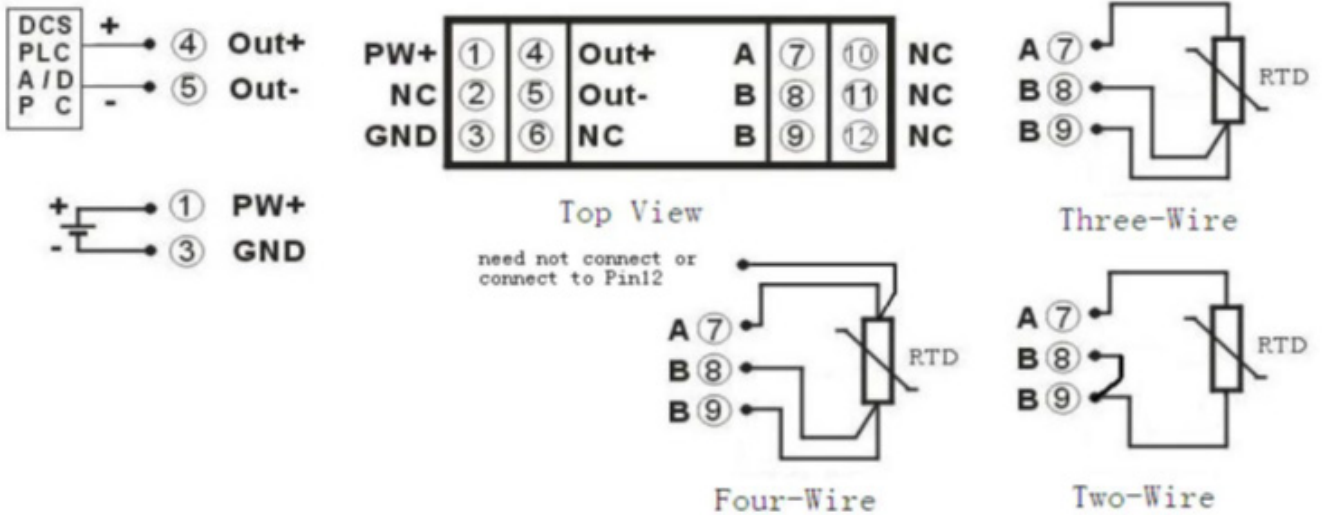
Part Number	Description
X0429	PT100 Signal Isolated Transmitter 0-150Deg, 24Vdc, 4-20mA
X0453	PT100 Signal Isolated Transmitter 0-250Deg, 24Vdc, 4-20mA

# RTD Transmitter

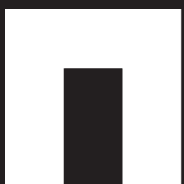
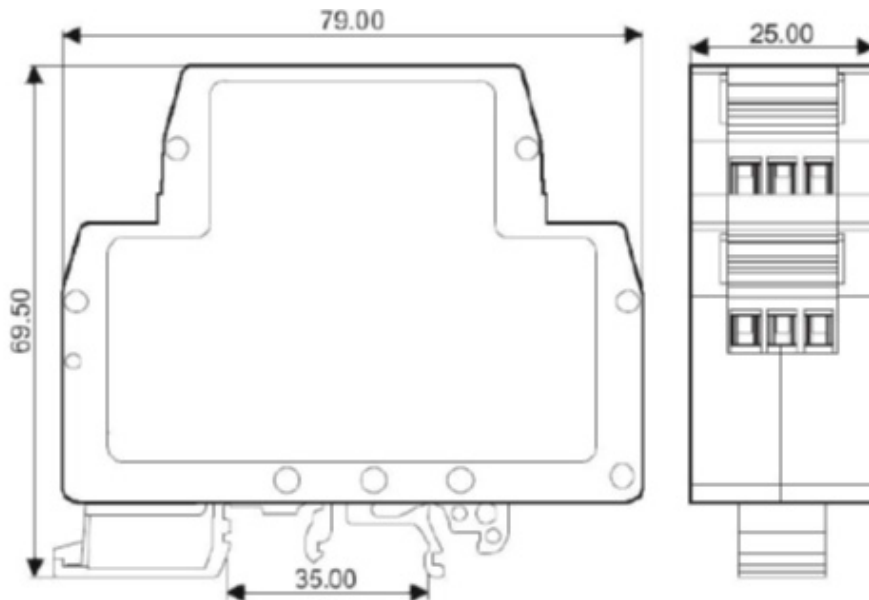
## Connection Diagram

Pin	Function		Pin	Function	
1	Vcc	Power Supply +	7	A	RTD Signal Input A
2	NC	No PIN	8	B	RTD Signal Input B
3	GND	Power Supply -	9	B	RTD Signal Input B
4	Out +	Output Signal +	10	NC	No PIN
5	Out -	Output Signal -	11	NC	No PIN
6	NC	No PIN	12	NC	No PIN

## Wiring Diagram



## Dimensions



**NEPEAN**  
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