

NT-TR RTD CONVERTER & ISOLATOR

■ FEATURE

- Measuring Pt100Ω - 3 wired
- 4 Input and 6 Popular Output Ranges Programmable by Dip-Switch
- Input type Changeable by difference Input Modules
- Dual difference signal output available
- Low cost and high stability
- CE Approved



■ ORDERING INFORMATION

NT-TR [Output Loops] - Temp. Range - Output 1 Range Output 2 Range - Aux. Power

CODE	OUTPUT LOOP
1	Single output
2	Dual output

CODE	TEMP. RANGE	CODE	TEMP. RANGE
A	-50 ~ +50 °C	G	0 ~ 800 °C
B	0 ~ 50 °C	H	-50 ~ +100 °C
C	0 ~ 100 °C	I	-100 ~ +100 °C
D	0 ~ 200 °C	J	-100 ~ +600 °C
E	0 ~ 400 °C	O	Specify temp. range Programmable 4 ranges(by D-S): 0~100/0~200/ 0~400/0~600 °C
F	0 ~ 600 °C	P1	Programmable 4 ranges(by D-S): 0~100/0~200/ 0~400/0~600 °C

Output 1 Range Output 2 Range

CODE	O/P RANGE	CODE	O/P RANGE
A	0 ~ 1 mA	1	0 ~ 100 mV
B	0 ~ 10 mA	2	0 ~ 1 V
C	0 ~ 20 mA	3	0 ~ 5 V
D	4 ~ 20 mA	4	0 ~ 10 V
I	Specify mA o/p	5	1 ~ 5 V
N	None	6	2 ~ 10 V
P	Programmable 6 ranges(by D-S): 4~20/0~20 mA 0~5/0~10/1~5/ 2~10 V	7	-10 ~ +10 V
P2	Programmable 4 ranges(by D-S): 0~5/0~10/ 0~200/0~400 °C	V	Specify V o/p

CODE	AUX. POWER
A1	AC 115 V
A2	AC 230 V

D12 DC 12V
D24 DC 24V
D48 DC 48V
D11 DC 110V
D22 DC 220V

Remark:
➤ When you select coding P1, P2 or P for input and output range, please specify initial range.
➤ After change input or output range by dip switches (D-S), re-calibration is to be requested.

■ TECHNICAL DATA

Signal input (change input type & range by input modules & dip-switch)

Input Range	Input Impedance
Pt100Ω(-100~800°C)	≥ 1M ohm

Analogue output (change output range by dip-switch)

Output Range	Output Resistance	Output Range	Output Resistance
0 ~ 10mAdc	≤ 600Ω	0 ~ 5Vdc	250Ω
0 ~ 20mAdc	≤ 600Ω	1 ~ 5Vdc	250Ω
4 ~ 20mAdc	≤ 600Ω	0 ~ 10Vdc	500Ω
		2 ~ 10Vdc	500Ω

- Accuracy: ≤ 0.1% of F.S. (delivered in customer's specify)
≤ 2% of F.S. (range changed by dip-switch)
- Linearity: ≤ 0.1% of F.S.
- Response time: ≤ 250msec
- Output ripple: ≤ 0.1% of F.S.
- Span adjustment: ≤ 20% of F.S.
- Zero adjustment: ≤ 20% of F.S.
- Power: AC 115V or 230V ± 15%, 50/60 Hz
DC 12V, 24V, 48V, 110V, 220V ± 10%
- Power consumption: DC 4W, AC 5.0VA

Environmental

- Operating temperature: 0~60 °C
- Operating humidity: 20~95% RH, Non-condensing
- Temperature coefficient: ≤ 100PPM/ °C (0~50 °C)
- Storage temperature: -10~70 °C
- Protection: IP 42

- Mechanical Dimensions: 50mm(W) x 87mm(H) x 130mm(D) with socket
- Housing: Self-extinguishing, black, UL94V0
- Socket: 11pin, female, black, UL94V0
- Terminals: Screw terminal, up to 2 x 2.5mm² wire
- Mounting: 35mm DIN rail (EN50022)
- Weight: 400g

- Specification
- Electrical Safety: IEC 61010 (Installation category 3)
- EMC: EN 61326
- Electric Isolation: AC 2.0KV for 1min
- Insulation resistance: Between Power / Input / Output1 / Output2 / Case
≥ 100MΩ at 500Vdc

■ ADJUSTMENT

O/P 2 Zero Adjust Pot (Clockwise: o/p2 increase)

O/P 2 Span Adjust Pot (Clockwise: o/p2 increase)

Dip Switch: Programming for O/P 2 - 6 Ranges selectable

O/P 1 Zero Adjust Pot (Clockwise: o/p1 increase)

O/P 1 Span Adjust Pot (Clockwise: o/p1 increase)

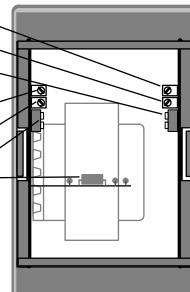
Dip Switch: Programming for O/P 1 - 6 Ranges selectable

Dip Switch: Programming for I/P - 6 Ranges selectable

Programming for input (on input module)

INPUT Pt100Ω : (CODE: P1)

SIGNAL RANGE	DIP-SWITCH (INPUT)	SW1	SW2	SW3	SW4
0 ~ 100 °C	on				
0 ~ 200 °C		on			
0 ~ 400 °C			on		
0 ~ 600 °C				on	



Programming for output

OUTPUT V / mA : (CODE: P)

SIGNAL RANGE	DIP-SWITCH (OUTPUT)	SW1	SW2	SW3	SW4	SW5
0 ~ 5 V	on	on	on	on		
1 ~ 5 V	on	on	on	on		
0 ~ 20 °C		on				
2 ~ 10 V	on		on	on		
0 ~ 20 mA	on				on	
4 ~ 20 mA	on				on	

■ CONNECTION DIAGRAM & SOCKET (11 PIN)

I/P: Pt100Ω

O/P: Analogue V/mA x 1 (or 2)

