

# Ω (POT-3wire) SIGNAL TRANSMITTER & ISOLATOR

NT-PM

## FEATURES

- Measures Potentiometer resistance 50Ω~50KΩ ( 3 wire )
- 2 Input and 6 Popular Output Ranges 0~5V / 0~10V / 1~5V / 2~10V / 0~20mA / 4~20mA Selectable by Dip-Switch
- Dual output available (isolated)
- Plugs into 11 pin Din Rail mounted base
- Low cost and high stability
- CE Approved



## ORDER CODING

NT - PM

CODE	OUTPUT	CODE	I/P RANGE	CODE	O/P RANGE	CODE	O/P RANGE	CODE	AUX. POWER
1	Single output	RP1	50Ω ~ 10KΩ	A	0 ~ 1 mA	1	0 ~ 100 mV	A1	AC 115 V
2	Dual output	RP2	10KΩ ~ 50KΩ	B	0 ~ 10 mA	2	0 ~ 1 V	A2	AC 230 V
		RPO	Specify input range	C	0 ~ 20 mA (P)	3	0 ~ 5 V (P)	AD1	20~90Vdc/ac
				D	4 ~ 20 mA (P)	4	0 ~ 10 V (P)	AD2	90~265Vdc/ac
				I	Specify mA o/p	5	1 ~ 5 V (P)	D48	DC 48 V
				N	None	6	2 ~ 10 V (P)	D11	DC 110 V
						7	-10 ~ +10 V	D22	DC 220 V
						V	Specify V o/p		

\* Ranges marked P are user selectable

## TECHNICAL DATA

Input Range	Input Impedance	Excitation Supply
50Ω ~ 10KΩ	≥ 1M ohm	About 0.2 Vdc
10KΩ ~ 50KΩ	≥ 1M ohm	About 2.0 Vdc

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)  
 ≤ 1% 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**
- Power supply:** 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 2.5mm<sup>2</sup> wire
- Mounting:** 35mm DIN rail (EN50022)
- Weight:** 400g

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

## ADJUSTMENT

- O/P 2 Zero Adjust Pot (Clockwise: o/p2 increases)
- O/P 2 Span Adjust Pot (Clockwise: o/p2 increases)
- Dip Switch: Programming for O/P 2 - 6 Ranges selectable
- O/P 1 Zero Adjust Pot (Clockwise: o/p1 increases)
- O/P 1 Span Adjust Pot (Clockwise: o/p1 increases)
- Dip Switch: Programming for O/P 1 - 6 Ranges selectable
- Dip Switch: Programming for I/P - 6 Ranges selectable

**Programming for input**

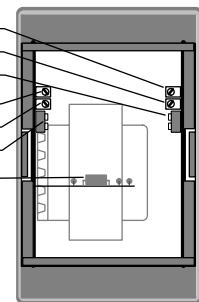
INPUT RESISTANCE Ω : ( CODE: P1 )

SIGNAL RANGE	DIP-SWITCH (INPUT)
	SW1   SW2   SW3   SW4
50Ω~10KΩ	on   on   on   on
10 KΩ ~ 50 KΩ	on   on   on   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 ~ 10 V	on   on   on   on
2 ~ 10 V	on   on   on   on
0 ~ 20 mA	on   on   on   on   on
4 ~ 20 mA	on   on   on   on   on



Recalibrate after range change

## CONNECTION DIAGRAM & SOCKET (11 PIN)

