

MT-RT POTENTIOMETER (RESISTANCE) Convertor

FEATURE

- Measures 3 Wire Potentiometers and 2 Wire resistances
- 2 Pot Ranges and 4 two wire Resistance Range Programmable
- 6 Popular Output Ranges Programmable by dip switches
- Low cost and high stability
- Design by CE standard



SPECIFICATION

Input Range	Input Impedance	Output Range	Load Resistance
POTENTIOMETER			
0~50/~2.0KΩ	≥ 1MΩ	0 ~ 100 mV	≥ 100KΩ
0~2.0K/~200.0KΩ	≥ 1MΩ		
RESISTANCE			
0 ~ 50Ω	≥ 1MΩ	1 ~ 5 V	≥ 500Ω
0 ~ 100Ω	≥ 1MΩ	2 ~ 10 V	≥ 1KΩ
0 ~ 200Ω	≥ 1MΩ	-10 ~ 0 ~ +10 V	≥ 10KΩ
0 ~ 500Ω	≥ 1MΩ	0 ~ 1 mA	≤ 10KΩ
0 ~ 1KΩ	≥ 1MΩ	0 ~ 10 mA	≤ 1KΩ
0 ~ 2KΩ	≥ 1MΩ	0 ~ 20 mA	≤ 500Ω
0 ~ 5KΩ	≥ 1MΩ	4 ~ 20 mA	≤ 500Ω
0 ~ 10KΩ	≥ 1MΩ		
0 ~ 20KΩ	≥ 1MΩ		
0 ~ 50KΩ	≥ 1MΩ		
0 ~ 100 KΩ	≥ 1MΩ		

Accuracy: ±0.1% of F.S.
Option range: Potentiometer: 0~50 / ~ 200K ohm (3 wired)
 Resistance: 0 ~ 100K ohm (2 wired)
Excitation: Potentiometer: 0~50/ ~ 2.0K ohm: 0.2Vdc
 : 0~2.0K/ ~ 200K ohm: 1.6Vdc
 Resistance: 0 ~ 100K ohm: 0.04 ~ 2.00 mAdc
Response time: ≤ 250 mS
Span adjustment: ≤ 10% of F.S.; Option: 50% of F.S.
Zero adjustment: ≤ 5% of F.S.; Option: 50% of F.S.
Output ripple: ≤ 0.1% of F.S.
Power Supply: AC 115 or 230V ±15%, 50/60 Hz
Power consumption: DC 5W, AC 6.5VA

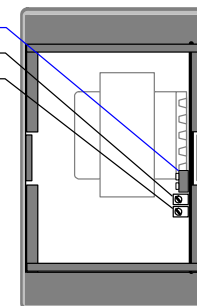
Operating temperature: 0~60 °C
Operating relative humidity: 20~95 %RH, non-condensing
Temperature coefficient: ≤ 100 PPM/ °C
Storage temperature: -10~70 °C

Insulation resistance: ≥ 100MΩ @500Vdc
Surge test: 4 KV, 1.2 x 50 μ S
Dielectric Strength: AC 2KV, 50/60Hz, 1 min.
 Between Power / Input / Output / Case

Standard: Comply with EN50081-1, EN50082-2
Dimensions: 50mm(W) x 87mm(H) x 123mm(D)-with socket
Mounting: Surface and DIN rail 35mm WIDE
Weight: 600g

ADJUSTMENT

- Dip Switch: Programming for O/P - 6 Ranges selectable
- O/P Span Adjust Pot (Clockwise: o/p increase)
- O/P Zero Adjust Pot (Clockwise: o/p increase)



Programming for input (on input module)

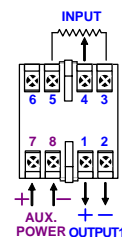
INPUT Resistance : (CODE: P1)	
SIGNAL RANGE	DIP-SWITCH (INPUT)
	SW1 SW2 SW3 SW4
0Ω ~ 1KΩ	on on
0Ω ~ 2KΩ	on on on
0Ω ~ 5KΩ	on on on on
0Ω ~ 10KΩ	on on on on on

INPUT Potentiometer : (CODE: P2)	
SIGNAL RANGE	DIP-SWITCH (INPUT)
	SW1 SW2 SW3 SW4
0~50Ω/~2.0KΩ	on on on on
0~2.0K/~200KΩ	on on on on on

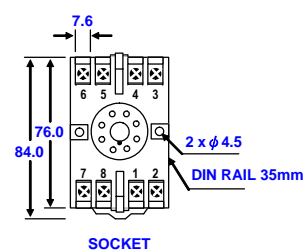
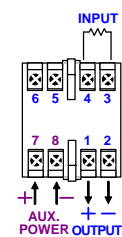
OUTPUT V / mA : (CODE: P)	
SIGNAL RANGE	DIP-SWITCH (OUTPUT)
	SW1 SW2 SW3 SW4 SW5
0 ~ 5 V	on on on on on
1 ~ 5 V	on on on on on
0 ~ 10 V	on on on on on
2 ~ 10 V	on on on on on
0 ~ 20 mA	on on on on on
4 ~ 20 mA	on on on on on

CONNECTION DIAGRAM & SOCKET

MT-RT POTENTIOMETER WITH 1 ANALOGUE OUTPUT



MT-RT RESISTANCE WITH 1 ANALOGUE OUTPUT



ORDERING INFORMATION

MT-RT- [Input Range] - [Output Range] - [Aux. Power]

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.

CODE	INPUT	CODE	INPUT RANGE	CODE	INPUT RANGE	CODE	OUTPUT	CODE	OUTPUT	CODE	AUX. POWER
R1	0 ~ 50Ω	R8	0 ~ 10.0KΩ	RP1	0~50/~2.0KΩ	A	0 ~ 1 mA	1	0 ~ 100 mV	A1	AC 115 V
R2	0 ~ 100Ω	R9	0 ~ 20.0KΩ	RP2	0~2.0K/~200.0KΩ	B	0 ~ 10 mA	2	0 ~ 1 V	A2	AC 230 V
R3	0 ~ 200Ω	RA	0 ~ 50.0KΩ	RPO	Specify(3-w Ω)	C	0 ~ 20 mA	3	0 ~ 5 V	D12	DC 12 V
R4	0 ~ 500Ω	RB	0 ~ 100KΩ	P2	Programmable 2 Ranges (by D-S) 0~50Ω/~2.0KΩ 0~2.0K/~200.0KΩ (Potentiometer)	D	4 ~ 20 mA	4	0 ~ 10 V	D24	DC 24 V
R5	0 ~ 1.0KΩ	RO	Specify(2-w Ω)			I	Specify (mA o/p)	5	1 ~ 5 V	D48	DC 48 V
R6	0 ~ 2.0KΩ	P1	Programmable 4 Ranges (by D-S) 0~1.0/~2.0/~5.0/~10.0KΩ (Resistance)			P	Programmable 6 ranges (by D-S): 4~20/0~20 mA 0~5/0~10/1~5/2~10 V	6	2 ~ 10 V	D11	DC 110 V
R7	0 ~ 5.0KΩ					V		Specify	N	None	