POTENTIOMETER (RESISTANCE) TRANSMITTER

MT-RT (V1.1)

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
- Changeable Input Module Between V/mA, Pt100, Potentiometer, Strain Gauge, easy maintain and save stock
- Low cost and high stability
- CE Approved

SPECIFICATION

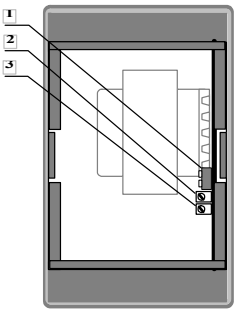
Input Range	Input Impedance	Output Range	Load Resistance
POTENTIOMETER		0 ~ 100 mV	≧100K ohm
0~50/~2.0K ohm	≧1M ohm	0 ~ 1 V	≧50 ohm
0~2.0K/~200K ohm	≧1M ohm	0 ~ 5 V	≧250 ohm
RESISTANCE			0 ~ 10 V
0 ~ 50 ohm	≧1M ohm	1 ~ 5 V	≧250 ohm
0 ~ 100 ohm	≧1M ohm	2 ~ 10 V	≧500ohm
0 ~ 200 ohm	≧1M ohm	-10 ~ 0 ~ +10 V	≧1K ohm
0 ~ 500 ohm	≧1M ohm	0 ~ 1 mA	≦15K ohm
0 ~ 1K ohm	≧1M ohm	0 ~ 10 mA	≦1500 ohm
0 ~ 2K ohm	≧1M ohm	0 ~ 20 mA	≦750 ohm
0 ~ 5K ohm	≧1M ohm	4 ~ 20 mA	≦750ohm
0 ~ 10K ohm	≧1M ohm		
0 ~ 20K ohm	≧1M ohm		
0 ~ 50K ohm	≧1M ohm		
0 ~ 100 K ohm	≧1M ohm		

__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: 2Vdc
Resistance: 0 ~ 100K ohm: 0.04 ~ 2.00 mAdc
__Response time: ≦250 msec.
__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
AC 380 or 415V ±10%, 50/60 Hz
__ Option: DC/AC 20V~90V, (Isolated)
__Power consumption: DC 5W, AC 6.5VA
__Operating temperature: 0~60 ℃
__Operating relative humidity: 20~95 %RH, non-condensing
__Temperature coefficient: ≦100 PPM/℃
__Storage temperature: -10~70 ℃
__Isolation: Between Power / Input / Output
__Insulation resistance: ≧100M ohm at 500Vdc
__Surge test: 4 KV, 1.2 x 50 μ sec.
Common mode & differential mode
__Dielectric Strength: AC 2.0 KV for 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: 500g

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	
0Ω ~ 5KΩ		on		on
0Ω ~ 10KΩ		on		

INPUT Potentiometer : (CODE: P2)

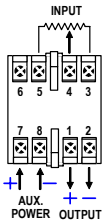
SIGNAL RANGE	DIP-SWITCH (INPUT) SW1	SW2	SW3	SW4
0~50Ω/~2.0KΩ		on	on	
0~2.0K/~200KΩ	on			on

OUTPUT V / mA : (CODE: P)

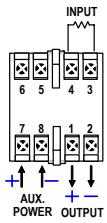
SIGNAL RANGE	DIP-SWITCH (OUTPUT) SW1	SW2	SW3	SW4	SW5
0 ~ 5 V		on	on	on	
1 ~ 5 V	on	on	on	on	
0 ~ 10 V			on	on	
2 ~ 10 V	on		on	on	
0 ~ 20 mA					on
4 ~ 20 mA	on				on

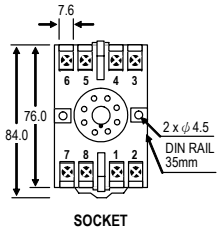
CONNECTION DIAGRAM & SOCKET (8 PIN)

MT-RT POTENTIOMETER WITH 1 ANALOGUE OUTPUT



MT-RT RESISTANCE WITH 1 ANALOGUE OUTPUT





ORDER INFORMATION

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.

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

Resistance(2 wired)

CODE	INPUT RANGE
R1	0 ~ 50 ohm
R2	0 ~ 100 ohm
R3	0 ~ 200 ohm
R4	0 ~ 500 ohm
R5	0 ~ 1.0K ohm
R6	0 ~ 2.0K ohm
R7	0 ~ 5.0K ohm

Resistance(2 wired)

CODE	INPUT RANGE
R8	0 ~ 10.0K ohm
R9	0 ~ 20.0K ohm
RA	0 ~ 50.0K ohm
RB	0 ~ 100K ohm
RO	Specify(2-w Ω)
P1	Programmable 4 Ranges (by D-S) 0~1.0/~2.0/~5.0/ ~10.0KΩ (Resistance)

Potentiometer(3 wired)

CODE	INPUT RANGE
RP1	0~50/~10.0KΩ
RP2	0~10.0K/~50.0KΩ
RPO	Specify(3-w Ω)
P2	Programmable 2 Ranges (by D-S) 0~50Ω/~2.0KΩ 0~2.0K/~200.0KΩ (Potentiometer)

Current

CODE	OUTPUT
A	0 ~ 1 mA
B	0 ~ 10 mA
C	0 ~ 20 mA
D	4 ~ 20 mA
I	Specify (mA o/p)
P	Programmable 6 ranges(by D-S): **4~20/0~20 mA 0~5/0~10/1~5/ 2~10 V**

Voltage

CODE	OUTPUT
1	0 ~ 100 mV
2	0 ~ 1 V
3	0 ~ 5 V
4	0 ~ 10 V
5	1 ~ 5 V
6	2 ~ 10 V
7	-10 ~ +10 V
V	Specify
N	None

Aux. Power

CODE	AUX. POWER
A1	AC 115 V
A2	AC 230 V
A3	AC 380 V
A4	AC 415 V
AD1	DC/AC 20~90V
AD2	DC/AC 20~90V