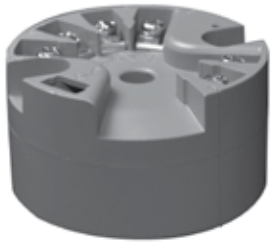
TM-012P-SERIES

TEMPERATURE AND RESISTANCE TRANSMITTER 4-20mA



DESCRIPTION

- Converting Devices from Thermocouple, RTD (PT100) and Resistance standard to 4-20 mA analog signal
- The InputType of Thermocouple and Range can be programmed
- Able to connect with Thermocouple and Skull RTD (PT100) type
- Compact size and easy to connect with to the skull (Bulb)

TECHNICAL SPECIFICATION

Power Supply		8-30VDC	
Input	Input Type	Thermocouple Type K, J,E,N,R,S,T	
		RTD (PT 100)	
		Resistance	
	Range	Thermocouple	-200 ˚C to 1768 ˚C
		RTD (PT 100)	-200 ˚C to 850 ˚C
		Resistance	0-5 kΩ
	Accuracy	± 1% of Temperature Span	
Output	Analog	4-20 mA	
Ambient Operation	Temperature	-10 ˚C to 60 ˚C	
	Humidity	85 % RH Non-Condensing	
Ambient Storage	Temperature	-20 ˚C to 80 ˚C	
	Humidity	85 % RH Non-Condensing	
Protection Degree		IP40	
Installation		Screw	
Material		ABS-V0	
Size		Ø45 x 25H (mm.)	
Weight		20 g.	

OPERATION

TM-012P Thermocouple, RTD (PT100) and Resistance Transmitter is convert signal from Thermocouple, RTD (PT100) and Resistance to standard 4-2 0 mA analog signal for input to PLC, Process Controller or other peripherals

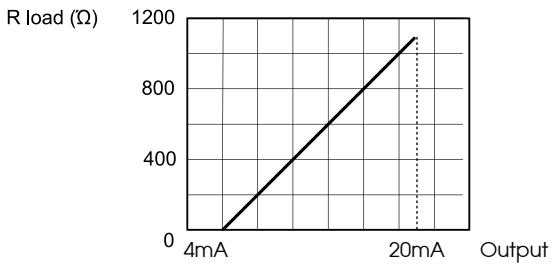
Input can be selected program. Thermocouple Type K, J, E, N, R, S, T Include Range of Thermocouple, RTD (PT100) and Resistance using Programmable Module RM-T-012P and Software or choose to specify the type of thermocouple and measurement area. Thermocouple, RTD (PT100) and Resistance as needed

Suitable for remote wiring because it is a 4-2 0 mA Current Loop is small, compact, can be inserted into the Bulb, thus saving installation space. By the way Thermocouple, RTD (PT100) and Resistor Sensor with Transmitter are the same Unit without isolation with Transmitter

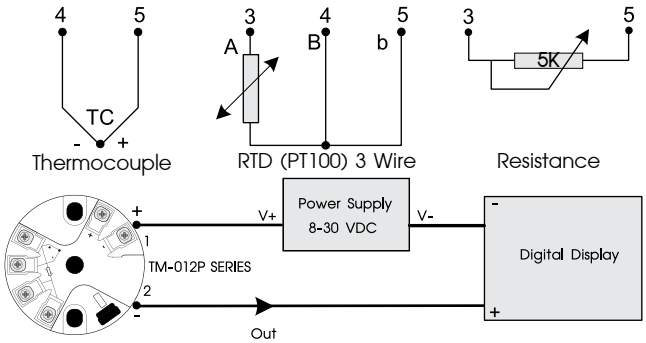
INPUT 1 TABLE

INPUT	TYPE	RANGE
Themocouple	K	-200 to 1,372 ˚C
	J	-200 to 1,200 ˚C
	E	-200 to 1,000 ˚C
	N	-200 to 1,300 ˚C
	R	-50 to 1,768 ˚C
	S	-50 to 1,768 ˚C
	T	-200 to 400 ˚C
RTD (PT100)	PT100	-200 to 850 ˚C

OUTPUT SIGNAL GRAPH



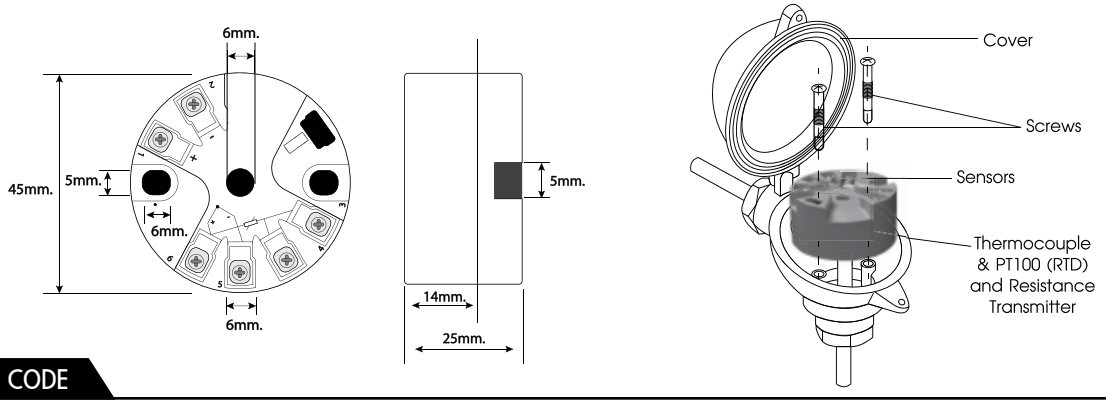
WIRING DIAGRAM



PROGRAMING MODULE

RM-TM-012P : Programing Module + Software

SIZE AND DIMENSION



ORDERING CODE

• Thermocouple & RTD (PT100) Input

INPUT — Range for Thermocouple & RTD (PT100)

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Input	
TCK	Thermocouple Type K
TCJ	Thermocouple Type J
TCE	Thermocouple Type E
TCN	Thermocouple Type N
TCR	Thermocouple Type R
TCS	Thermocouple Type S
TCT	Thermocouple Type T
RTD	RTD/PT100

Range for Thermocouple & RTD (PT100)	
None	Refer to Range in Input Table 1 and can be programmed range of measurement form Module RM-TM-012P
200	0 to 200 ˚C (Thermocouple)
300	0 to 300 ˚C (Thermocouple)
400	0 to 400 ˚C (Thermocouple)
500	0 to 500 ˚C (Thermocouple)
600	0 to 600 ˚C (Thermocouple)
1000	0 to 1000 ˚C (Thermocouple)
S	Special Range (Thermocouple)
N50	-50 to 50 ˚C (Thermocouple)
50	0 to 50 ˚C (Thermocouple)
100	0 to 100 ˚C (Thermocouple)
150	0 to 150 ˚C (Thermocouple)
200	0 to 200 ˚C (Thermocouple)
300	0 to 300 ˚C (Thermocouple)
600	0 to 600 ˚C (Thermocouple)
S	Special Range (Thermocouple)

• Resistance

INPUT — Range for Resistance

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Input	
R	Resistance 5KΩ

Range for RTD/PT100	
None	Refer to Range in Input Table 1 and can be programmed range of measurement form Module RM-TM-012P
1K	0 to 1KΩ
2K	0 to 2KΩ
3K	0 to 3KΩ
4K	0 to 4KΩ
5K	0 to 5kΩ
S	Special Range

Programing Module (Free Software)

RM-TM-012P : Programing Module + Software

Software