

# MICROPROCESS THERMOCOUPLE TRANSMITTER



## FEATURES

- Accuracy 0.2% F.S.  $\pm 0.5^{\circ}\text{C}$  (CJC)
- Programmable rate - 1999 to 9999 digit (analog output)
- CJC traceability  $\leq \pm 0.5^{\circ}\text{C}$  (0-70 $^{\circ}\text{C}$ )
- 15 bit DAC analog voltage or current mode can be modified
- Sensor error compensation (offset) and break detection function
- $^{\circ}\text{C}$  or  $^{\circ}\text{F}$  scale, 1 or 0.1 degree resolution
- Display value depend on the mean input pulse several times can be modified (1-9 times)
- Input/output isolation 2KVdc

1. MODEL: PF- [ ] - [ ] - [ ] - [ ] - [Min.] - [Max.] - [ ] - [N] → (Non-programmable)  
(Input Range)

MTA Non-Isolating (input/output)  
MTB Isolating (input/output)

$^{\circ}\text{C}$  or  $^{\circ}\text{F}$

NO	Input Type	NO	Output Ranges	NO	Aux. Power
B	B (200~1800 $^{\circ}\text{C}$ )	E	DC 0-5 V	1	AC 110V (50/60Hz)
E	E (-185~990 $^{\circ}\text{C}$ )	F	DC 1-5 V	2	AC 220V (50/60Hz)
J	J (-200~760 $^{\circ}\text{C}$ )	H	DC 0-10 V	3	DC 24V
K	K (-200~1360 $^{\circ}\text{C}$ )	J	DC 0-1 mA	4	DC 48V
R	R (0~1760 $^{\circ}\text{C}$ )	P	DC 0-20 mA	5	DC 110V
S	S (0~1750 $^{\circ}\text{C}$ )	Q	DC 4-20 mA	6	DC 220V
T	T (-200~395 $^{\circ}\text{C}$ )	R	SPECIFIED	7	AC 90~260V
				9	SPECIFIED

•  $\pm 20\%$  of rate, less 3.5VA for AC input  
•  $\pm 20\%$  of rate, less 3WATT for DC input  
• Switchable 110V/220V by jump internally  
•  $\pm 10\%$  of rate, less 3.5VA for AC switching input

## 3. Output switches table (S4)

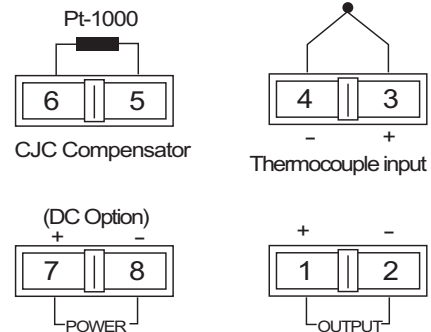
(switching status 1 = on; 0 = off)

Output Range	O/P Range 1-2-3-4-5-6	O/P Mode 7-8
0 ~ 5V	1-0-1-0-1-0	1-1
1 ~ 5V	1-1-1-0-1-1	1-1
0 ~ 10V	1-1-0-1-0-0	1-1
0 ~ 1mA	0-1-1-1-1-0	0-0
0 ~ 20mA	1-1-0-1-0-0	0-0
4 ~ 20mA	1-1-1-1-0-1	0-0

## 2. Specification

- Accuracy (23 $\pm 5^{\circ}\text{C}$ ) : 0.2% F.S.  $\pm 0.5^{\circ}\text{C}$  (CJC)
- Sampling time : 0.04 second
- Readout range : -1999 ~ 9999 digit adjustable
- Display : Red high efficiency LEDs 9.2mm (0.36")
- Polarity display : When input is negative, "-" displayed
- Over input indication (input break indication) : "ovEr"
- Analog output resolution : 15 bit DAC
- Output drive capability :  $\leq 10\text{mA}$  for voltage mode  
 $\leq 10\text{V}$  for current mode
- Output ripple (p-p) :  $< 0.1\%$  F.S.
- Response time :  $\leq 100\text{ms}$  (0~90%)
- Temp. coefficient : 50 ppm/ $^{\circ}\text{C}$  (0-50 $^{\circ}\text{C}$ )
- Dielectric strength : 1.5KVac/1 min. (power/input/output)  
2000 Vdc (input/output)
- Operating condition : 0~55 $^{\circ}\text{C}$  (20~95% RH non-condensed)
- Storage condition : 0~70 $^{\circ}\text{C}$  (20~95% RH non-condensed)
- Construction : Socket/plug-in type with barrier terminals

## 4. Terminal connection



## 5. Dimension: See other transmitter dimension

## 6. Application

Example 1 : PF-MTB-KQ1-0-1200 $^{\circ}\text{C}$

Input type ..... (K-type)  
Input range ..... (0-1200 $^{\circ}\text{C}$ )  
Output range ..... (DC 4-20mA)  
Power ..... (AC 110V)

Example 2 : PF-MTB-RH2-0-3182 $^{\circ}\text{F}$

Input type ..... (R-type)  
Input range ..... (0-3182 $^{\circ}\text{F}$ )  
Output range ..... (DC 0-10V)  
Power ..... (AC 220V)