Temperature Transmitter with Digital Switch

Model : **T800S (General head)**
T800 (Explosion Proof head)

Advantages

- Micro-processor based digital temperature switch/transmitter for industrial applications
- Adjustable switch points allow the user to obtain various temperature settings for each of the 2 switches and span
- Measuring ranges from -50 to 500℃
- RTD input
- Excellent accuracy and long term stability
- 4 digit LED local display
- 2switching points with analog output
- Measuring range turn down maximum 10 : 1

T800 / T800S

Applications

The T800, T800S micro-processor based digital temperature switch with analog output signal can be used for a wide range of applications in process control, automatic machinery and hydraulic or pneumatic system design.

- Chemical, petrochemical, food and drug process controls
- Hydraulic and pneumatic equipments
- Machine tools and automatic machinery
- LPG and LNG transmission control and storage tank monitoring
- Engine monitoring and control

Certificate

Ex d IIC T6 (IP65)

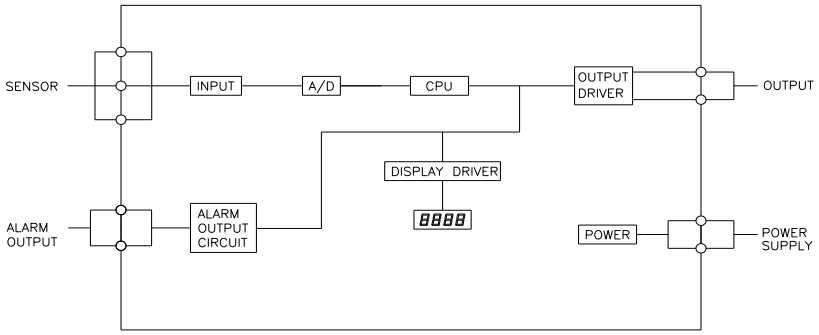
Descriptions

T800 Series micro-processor based digital temperature switch addresses all the fundamental issues of industrial temperature sensing that require highly accurate process control and monitoring. The T800S/P800, with its built-in RTD , a 4-digit digital display, 2 switching points, 4~20mA analog output signal and a front function keys, offer the user all the advantages of a modern electronic temperature measurement. External adjustments allow the user to set the measuring ranges, switch points, dead band and zero or span calibration, etc. It has a water resistant, aluminum die-cast housing for complete protection from harsh environments and its 4~20mA current output is ideal for remote monitoring of both primary and secondary process variables. It has been designed as an advanced device for measuring temperature in industrial applications.

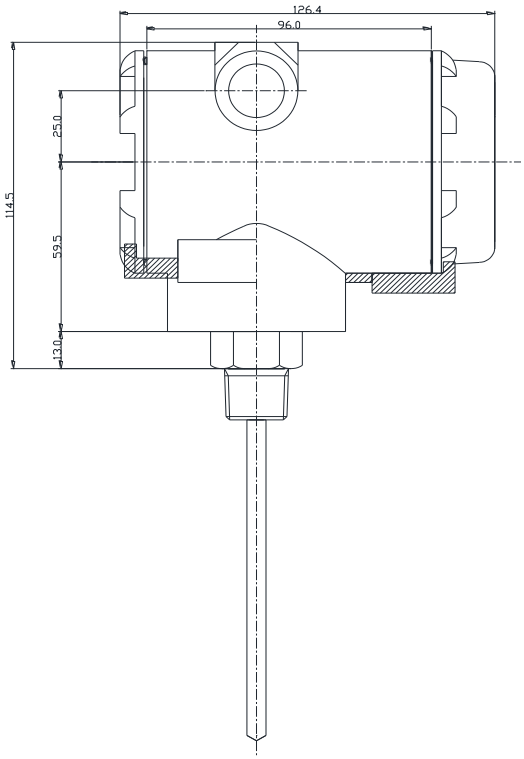
Specification

Input	
Technology	RTD (PT100 ohm, IEC, DIN, JIS-C-1604-1981)
Measuring range	-50~500 °C
Output	
Output signal	4~20mA analog output / Optional 1~5V DC acailable on request
	2 switching points with 4~20mA analog output
Local display	LED 4 digit
Electrical connection type	Terminal Head
Electrical Specification	
Excitation voltage	24V DC (12~36V DC) , 85~260V AC (Optional)
Load resistance max @ 24V	500 Ω at 24V
Influence of excitation	0.01% FSO/V
Power ripple	≤500mV P-P
Reverse polarity	Protected
Shock resistance	No change in performance after 10Gs for 11ms
Vibration	0.1G (1 m/s/s) maximum
Response time(10~90%)	± 500 mSec.
Switching current	Maximum 1.2A
Adjustment range	Zero and span can be fully adjustable using front keys
Performance Specification	
Accuracy	≤±0.2% FSO
Non-linearity	± 0.2% FSO
Repeatability	± 0.1% FSO
Long term stability	Better Than 0.05% FSO per month
Ambient temperature range	-20 ~ 70 ℃
Ambient humidity limits	5 to 100% R.H
Storage temperature range	-40 ~ 70 ℃
Physical Specification	
Process connection	PT1/2" male thread (standard)
	Flange & other connections available on request
Electrical connection	PF 1/2"
Process media	Gases and liquids compatible with stainless steel 316
Materials wetted by process	Probe : stainless steel 316
	Housing : Aluminum Die-casting terminal head
Local display range	4 digit
Enclosure rating	IP65
Explosion protection	Ex d IIC T6 (Only T800)
Influence of mounting position	Not critical
Options	Protection well

System connection for digital switch

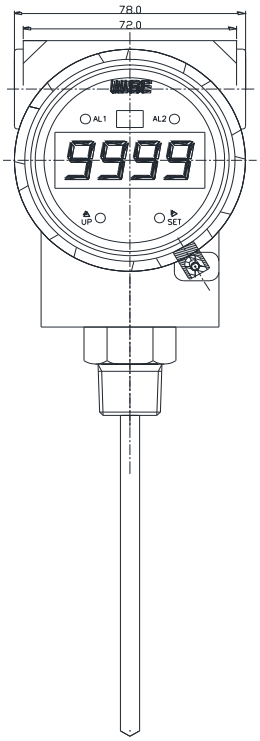


Dimension (mm)



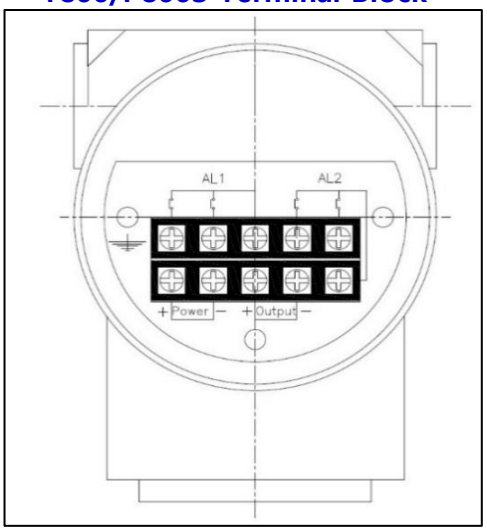
Side view

Electrical connection



Front view

T800/P800S Terminal Block



Ordering Information

Temperature Transmitter with Digital Switch

1. Base model

T800	General Head
T800S	Explosion Proof Type Head

2. Input signal

P	RTD (PT 100 Ω)
O	Other Input signal available on request

3. Process connection

1	Male thread mounted
2	Flange mounted

4. Process connection type

T	PT thread as standard
J	Flange per JIS
D	Flange per DIN
A	Flange per ANSI
X	Other process connections available on request

5. Process connection size

1	1/2"
2	1"
3	2"
X	Specify the flange unit clearly

6. Thermo-well

S	With protection thermo-well
N	Without protection thermo-well

7. Measuring range

01	-50 ~ 0 ℃
02	-50 ~ 50 ℃
03	-20 ~ 80 ℃
04	-50 ~ 150 ℃
05	0 ~ 50 ℃
06	0 ~ 100 ℃
07	0 ~ 150 ℃
08	0 ~ 200 ℃
09	0 ~ 300 ℃
10	0 ~ 400 ℃
11	0 ~ 500 ℃
xx	Other calibration ranges available on request

8. Unit

C	Calibration in Celsius scale ℃
F	Calibration in Fahrenheit scale °F

9. Output signal / Electrical connection type

S	2 switching points / only available local display
C	4~20mA Current output signal
D	2 switching points with analog output signal / only available local display
X	Other signal available on request

10. Option

A	AC 220V, 4 wire system
D	DC 12~36V, 4 wire system
M	2 inch pipe mounting bracket
N	None

T800S	P	1	T	1	N	06	C	S	N	Sample ordering code

Specifications subject to change without notice