# 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°C
- 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

# **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



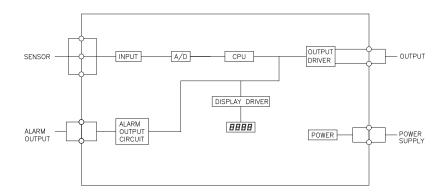
#### **Descriptions**

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	30-3000 0
Odiput	4~20mA analog output / Optional 1~5V DC acailable on request
Output signal	2 switching points with 4~20mA analog output
Local display	LED 4 digit
Electrical connection type	Terminal Head
Electrical Specification	Terminal Frede
Excitation voltage	24V DC (12~36V DC), 85~260V AC (Optional)
Load resistance max @ 24V	500Ω 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 (1m/s/s) maximum
	± 500 mSec.
Response time (10~90%)	Maximum 1.2A
Switching current	
Adjustment range	Zero and span can be fully adjustable using front keys
Performance Specification	< 10.00% FCO
Accuracy	≤± 0.2% FSO
Non-linearity	± 0.2% FSO
Repeatability	± 0.1% FSO
Long term stability	Better Than 0.05% FSO per month
Storage temperature range	0~70 °C
Ambient temperature range	-20~70 °C
Ambient humidity limits	5 to 100% R.H
Thermal sensitivity shift	≤± 0.05% FSO in reference to 35°C typical
Thermal zero shift	≤± 0.05% FSO in reference to 35°C typical
Thermal hysteresis	≤± 0.1% FSO in reference to 35°C typical
Physical Specification	
Process connection	PT1/2" male thread (standard)
	Flange & other connections available on request
Electrical connection	PF3/8" female (T800S), PT1/2" female (T800)
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



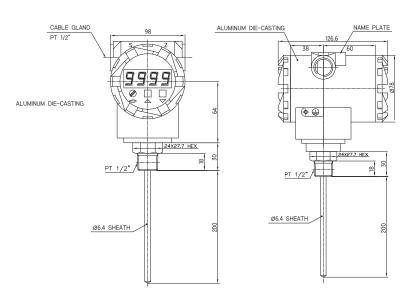
# **Dimension (mm)**

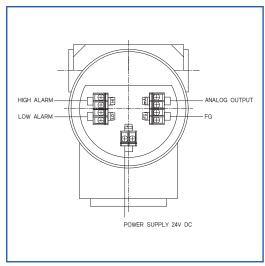
# **Electrical connection**

#### **P800 Front view**

#### **P800 Side view**

#### **P800 Terminel**

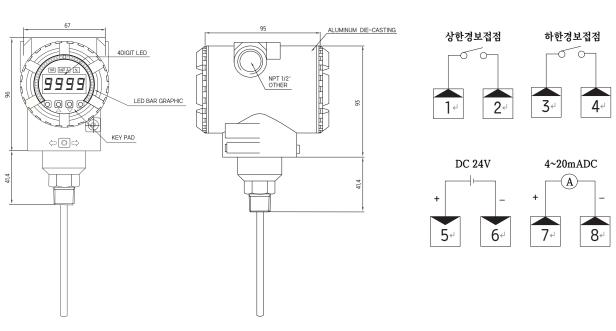




#### **P800S Front view**

#### **P800S Side view**

#### **P800S Terminel**



# **Ordering Information**

# **Temperature Transmitter with Digital Switch**

1.	Base	model
١.	Dasc	HIDUEL

T800S						General Head
T800						Explosion Proof Type Head
	O 1.		- 1			

#### 2. Input signal

Р					RTD (PT 100 Ω)
0					Other Input signal available on request

#### 3. Process connection

1				Male thread mounted
2				Flange mounted

#### 4. Process connection type

Т				PT thread as standard
J				Flange per JIS
D				Flange per DIN
Α				Flange per ANSI
Х				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

С		Calibration in Celsius scale (°C)
F		Calibration in Fahrenheit scale (°F)

### 9. Output signal / Electrical connection type

S	2 switching points / only available local display
С	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

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