Explosion Proof Type Temperature Transmitter with Indicating
Model : T700 (Standard head)
T710 (Miniature head)

WISE SENSOR

Advantages

Explosion Proof transmitter for industrial applications

- Two wire 4~20mA current output signal
- RTD and thermocouple inputs
- Measuring ranges from -50 to 500 C
- Loop powered 4~20mA with LED local display
- Excellent accuracy and long term stability

T710

T700

Applications

These are recommended in applications requiring amplification of RTD or T/C signals to carry to a long distance or guard against heavy field electrical noise.
The transmitter converts RTD or T/C inputs to an analog signal for direct interface with indicators, recorders, controllers, PLC, DCS systems can be used for a wide range of applications in process control, automatic machinery and hydraulic or pneumatic system design.

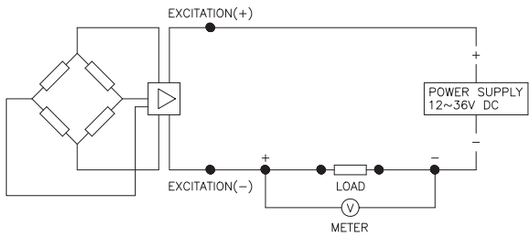
Descriptions

T700 / T710 series temperature transmitters are designed to fit into standard weather or explosion-proofed terminal heads used on RTD or thermocouple assemblies to provide a 4~20mA transmission signal. It is cost effective solution for all temperature measurement and accurate, durable and reliable. Numerous configurations for measurement in many different mediums are offered. Generally the transmitter produces a linear 4~20mA output carried on a two-wire system and optional voltage range of 1~5V DC can also be available. The transmitter is supplied factory calibrated, but also has zero and span protentiometers for field adjustment or calibration.
T700 / T710 provides a loop powered 4~20mA / 2-wire with LED local display and in the harzadous environment, explosion protected terminal head can be also available.

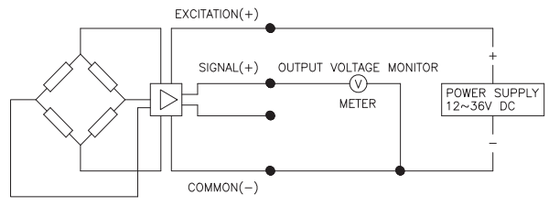
Specification

Input				
Technology	RTD (PT100 ohm, JIS-C-1604-1981)			
	Thermocouple Type 〈B, E, J, K, N, R, S, T〉 (Only available T700)			
Output				
	Current output		Voltage output	
Electrical connection type	2-wire technique		3 or 4-wire technique	
Full scale output signal	20mA	± 0.2%	5V	± 0.2%
Zero measured output	4mA	± 0.03%	1V	± 0.03%
	Other signals available on request			
Electrical Specification				
Excitation voltage	12~36V DC			
Load resistance max @ 24V	500Ω at 24V			
Influence of excitation	0.01% FSO / V			
Shock resistance	No change in performance after 10Gs for 11ms			
Response time(10~90%)	± 500 mSec.			
Adjustment	± 20% FSO / zero and span			
Performance Specification				
Accuracy	≤± 0.2% FSO			
Non-linearity	Better Than 0.10% FSO			
Repeatability	Better Than 0.05% FSO			
Long term stability	Better Than 0.05% FSO per month			
Cutoff frequency(-3 d B)	± 2kHz			
Ambient temperature limits	-20~70 °C			
Ambient humidity limits	5 to 100% R.H			
Physical Specification				
Process connection	PT1/2″ male thread			
	Flange & other connections available on request			
Process media	Gases and liquids compatible with stainless steel 316			
Materials wetted by process	Stainless steel 316L and other available on request			
Materials of terminal head	Aluminum Die-casting			
Local display range	4 digit			
Enclosure rating	IP65			
Explosion protection	Ex d IIC T6 (IP65)			
Influence of mounting position	Not critical			
Options	Protection well			

System connection for 2-wire transmitter

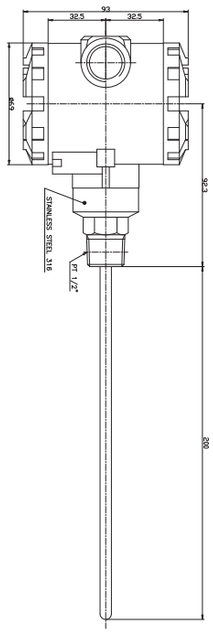


System connection for 3-wire transmitter

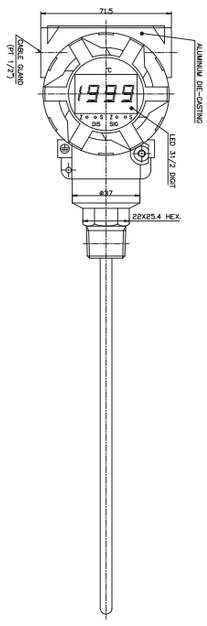


Dimension (mm)

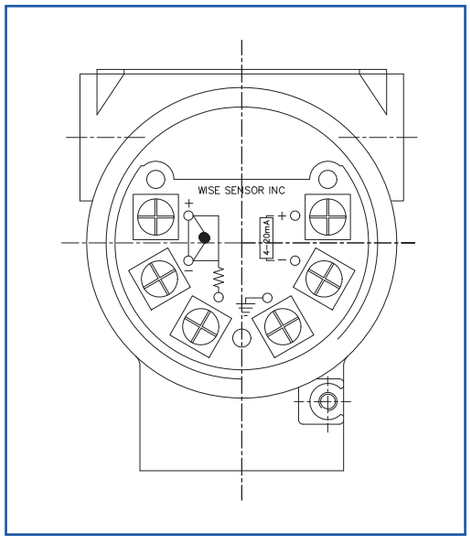
T700 Side view



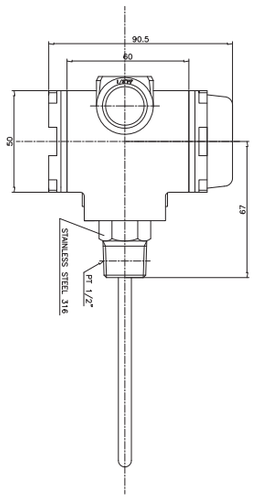
T700 Front view



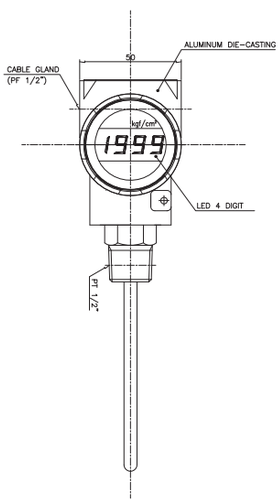
T700 Terminal block



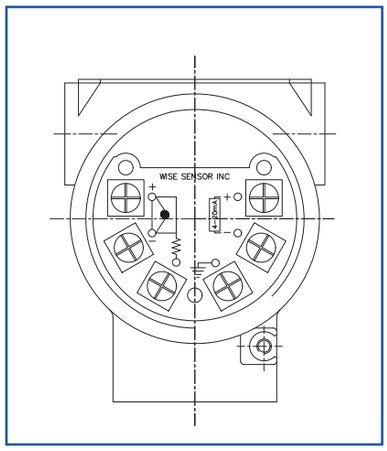
T710 Side view



T710 Front view



T710 Terminal block



Ordering Information

Explosion Proof Type Temperature Transmitter with Indicating

1. Base model

T700									Explosion Proof Standard Head
T710									Explosion Proof Miniature Head

2. Input signal

P									RTD (PT 100 Ω)
B									Thermocouple Type ″B″ (Only available T700)
E									Thermocouple Type ″E″ (Only available T700)
J									Thermocouple Type ″J″ (Only available T700)
K									Thermocouple Type ″K″ (Only available T700)
N									Thermocouple Type ″N″ (Only available T700)
R									Thermocouple Type ″R″ (Only available T700)
S									Thermocouple Type ″S″ (Only available T700)
T									Thermocouple Type ″T″ (Only available T700)
O									Other Input signal available on request

3. Process connection

M								Male thread mounted
F								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 (°C)
F			Calibration in Fahrenheit scale (°F)

9. Output signal / Electrical connection type

A1		4~20mA, DC, 2-wire output
A2		4~20mA, DC, 4-wire output
B1		1~5V, DC, 3-wire output
B2		1~5V, DC, 4-wire output

10. Option

N	None options
M	2 inch pipe mounting bracket

T700	P	M	T	1	N	06	C	A1	N	Sample ordering code

Specifications subject to change without notice