

**Low Cost,
Compact,
Local Indicating Temperature Transmitter**



**2-wire Loop-powered
Model : KT-11,12**

**RTD Input
Front attached display
Cost effective
LED 3-digits local display
High accurate, durable & reliable
Wide measuring ranges
Excellent accuracy & long term stability
All stainless steel construction**

The transmitter converts RTD & 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.

GENERAL DESCRIPTION

KP-11 series Compact & low cost digital temperature transmitters have been designed an advanced device for measuring temperature and used on Resistance temperature detector or Thermocouple assembly to provide a 4~20mA transmission output signal. A compact design and 3 digit LED local display make it easy to control and monitoring process.

It is a cost effective solution for all temperature measurement. Numerous configurations for measurement in many different mediums are offered. Generally the transmitter produces a linear 4~20mA output carried on a 2-wire system and optional voltage output can also be available.

TECHINCAL DATA

Input

| | |
|--------------|------------------------|
| Element Type | RTD Pt 100 ohm |
| Out-diameter | 3.2, 4.8, 6.4, 8, 10mm |

Output

| | |
|---------------|---|
| Output Signal | 4~20mA DC, 2-wire 1~5V, 0~10V DC, 3-wire(Optional) |
| Local Display | 3 Digits, 7-segment digital LED |

Electrical Specification

| | |
|--------------------------|---|
| Electrical Connection | KT-11 : 4-pin L-plug, DIN 43 650, IP65 KT-12 : Flying lead with PG 9 connector |
| Excitation Voltage | 10~36V DC |
| Load Resistance max.@24V | 750 ohm at 24V |
| Influence Of Excitation | 0.01% FSO/V |
| Reverse Polarity | Protected |
| Response Time | ≤2 miliseconds |
| Adjustment | Within 10% of full scale |

Performance Specification

| | |
|---------------------------|-------------------------|
| Accuracy | ±0.2% FSO |
| Non-linearity | ±0.10% FSO typical |
| Repeatability | ±0.05% FSO typical |
| Hysteresis | ±0.05% FSO typical |
| Long-term Stability | ±0.3% FSO over 6 months |
| Ambient Temperature Limit | -20~80℃ |
| Ambient Humidity Limit | 5~100% R.H |

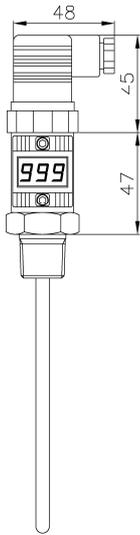
Physical Specification

| | |
|--------------------|--|
| Process Connection | Thread Type : PT, NPT, PF Thread Size : 1/4", 3/8", 1/2" Other connections available such as JIS, ANSI, DIN Flange |
| Process Media | Gases & liquids compatible with Stainless steel 316 |
| Materials | Case : Stainless steel 316 Wetted parts : Stainless steel 316 Probe : Stainless steel 316 Display cover : Polycarbonite |
| Enclosure Rate | IP65 |

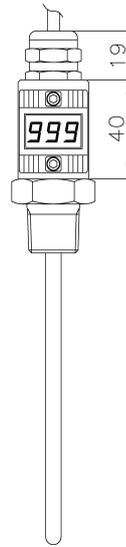
Note) More information for process connection & mounting types, please refer to the table.

DIMENSION

KT-11



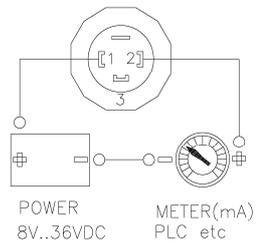
KT-12



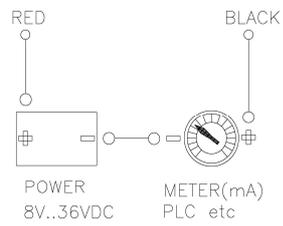
Electrical Connection(wiring)

2-wire system

4-pin L-plug, DIN 43 650

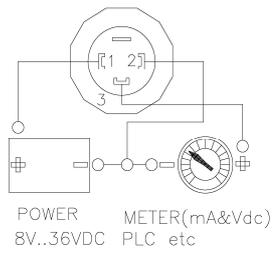


Flying lead

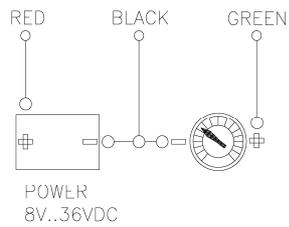


3-wire system

4-pin L-plug, DIN 43 650



Flying lead



ORDERING INFORMATION

Model
KT-11

Input Signal(Sensing Element)

- R : Pt 100ohm
- D : Pt 1000 ohm

Process Connection Type

- X : Refer to Table No.1 on page 28

Range(°C)

- 110 : -50~0
- 111 : -50~50
- 112 : -50~80
- 113 : -50~100
- 114 : 0~50
- 115 : 0~100
- 116 : 0~150
- 117 : 0~200
- 118 : 0~300
- 119 : 0~400
- 120 : 0~500
- xxx : Other ranges available on request

Unit

- A : °C
- B : °F

Output Signal

- 0 : None-output(Only digital gauge)
- 1 : 4~20mA DC, 2-wire
- 2 : 1~5V DC, 3-wire(Optional)

Element specification

- x : Refer to Table No.2 on page 28

Option

- 0 None
- 1 Wetted part teflon coating
- 2 Wetted part teflon lining
- 3 Thermo-well
- 4 Thermo-well with teflon coating
- 5 Thermo-well with teflon lining
- X Other options on request

| | | | | | | | |
|-------|---|-----|-----|---|---|-------|---|
| KT-11 | R | ACB | 115 | A | 1 | AABFC | 0 |
|-------|---|-----|-----|---|---|-------|---|

Note 1) Other ranges are available on request.

Note 2) Please make details, if you need Thermo-well assembly according to Table No.3 on page 29

Table No.1 For Process Connection

| 1'st character | | 2'nd character | | | 3'rd character | | | |
|----------------|----------------|-----------------|--------|--------|-----------------|------|------|--------------|
| Mounting type | | Connection size | | | Connection type | | | |
| Code | Type | Code | Size | | Code | Type | Code | Type |
| A | Fixed thread | A | 1/4" | 8A | A | PF | F | JIS10K RF |
| B | Nipple | B | 3/8" | 10A | B | PT | G | JIS10K FF |
| C | Union & nipple | C | 1/2" | 15A | C | NPT | H | JIS20K RF |
| D | Comp.fitting | D | 3/4" | 20A | D | UNF | I | JIS20K FF |
| E | Flange | E | 1" | 25A | E* | C.F | J | JIS30K RF |
| F | None | F | 1 1/4" | 32A | | | K | JIS30K FF |
| | | | G | 1 1/2" | | | L | ANSI 150# RF |
| | | | H | 2" | | | M | ANSI 150# FF |
| | | | I | 2 1/2" | | | N | ANSI 300# RF |
| | | | J | 3" | | | O | ANSI 300# FF |
| | | | K | 4" | | | P | ANSI 600# RF |
| | | | | | | | Q | ANSI 600# FF |

Note E* : Compression fitting
Other process connection available on request

Table No.2 For Element specification

| 1'st character | | 2'nd character | | 3'rd character | | 4'th character | | 5'th character | |
|----------------|---------|----------------|----------|----------------|----------|------------------|----------|------------------|--------|
| Element | | Material | | Grade | | Out-diameter(mm) | | Probe length(mm) | |
| Code | Element | Code | Material | Code | Class | Code | Diameter | Code | Length |
| A | Single | A | 316 SS | A | 0.4 / A | A | 1.0 | A | 50 |
| B | Double | B | Inconel | B | 0.75 / B | B | 1.6 | B | 75 |
| | | | | | | C | 2.3 | C | 100 |
| | | | | | | D | 3.2 | D | 150 |
| | | | | | | E | 4.8 | E | 200 |
| | | | | | | F | 6.4 | F | 250 |
| | | | | | | G | 8.0 | G | 300 |
| | | | | | | H | 10.0 | H | 500 |
| | | | | | | I | 12.0 | I | 750 |
| | | | | | | J | 14.0 | J | 1000 |
| | | | | | | K | 15.0 | K | 1500 |
| | | | | | | L | 17.3 | L | 2000 |
| | | | | | | M | 21.7 | M | 2500 |
| | | | | | | | | N | 3000 |
| | | | | | | | | O | 3500 |
| | | | | | | | | P | 4000 |

Note : Special length available on request



성지테크(압력/온도/유량/레벨)

TEL: 02-6335-8006~7