

**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.

TECHINICAL 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

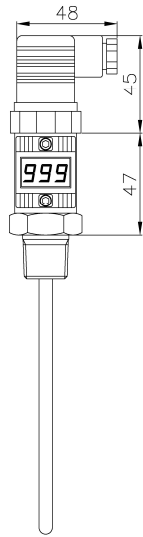
Physical Specification

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

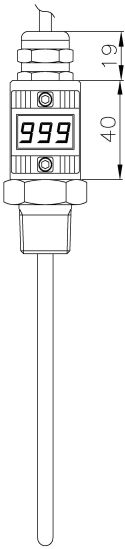
Note) More information for process connection & mounting types, please refer to the table.

DIMENSION

KT-11



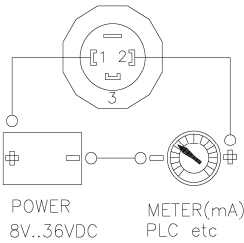
KT-12



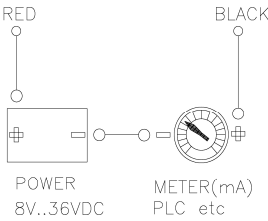
Electrical Connection(wiring)

2-wire system

4-pin L-plug, DIN 43 650

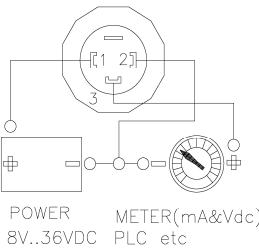


Flying lead

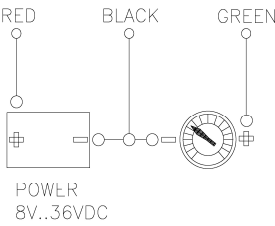


3-wire system

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
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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"	40A			L	ANSI 150# RF
		H	2"	50A			M	ANSI 150# FF
		I	2 1/2"	65A			N	ANSI 300# RF
		J	3"	80A			O	ANSI 300# FF
		K	4"	100A			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)

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