

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

2-wire Loop-powered

Model : PR-T20



PR-T20

RTD & Thermocouple input

Programmable temperature transmitter

Compact field case

Fully range adjustable

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

PR-T20 Series Digital Temperature Transmitter는 Microprocessor를 내장한 고정도의 온도전송기이다. 알루미늄 다이캐스팅 Field Terminal은 소형사이즈로 설치공간이 협소한 Process에서도 사용이 가능하며, 전면부의 조작키를 이용하여 손쉽게 다양한 기능을 조정할 수 있다. 또한 RTD나 Thermocouple등의 입력을 받아 4~20mA 출력으로 전송하며 온도범위와 영점조정등은 현장에서 가능하다. 4 digit LED지시계는 현장에서 측정된 온도값을 확인할 수 있으며 동시에 전류신호는 다른 Receiver기기로 전송된다.

케이스는 알루미늄 다이캐스팅으로 Weather-proof등급이며 배선이나 사용이 용이하며, 또한 Multi-input으로 현장에서 센서를 교체 측정값등을 설정.사용할 수 있다.

TECHINCAL DATA

Input

Element Type	Pt 100 ohm Thermocouple K, J, E, T type
Out-diameter	1.0, 1.6, 2.3, 3.2, 4.8, 6.4, 8, 10, 12

Output

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

Electrical Specification

Electrical Connection	Field case, weather-proofed
Conduit Connection	1/2"PT,Female
Excitation Voltage	10~36V DC
Load Resistance max.@24V	700 ohm at 24V
Influence Of Excitation	0.01% FSO/V
Reverse Polarity	Protected
Response Time	≤2 milliseconds
Adjustment	10 : 1 Range turn-down

Performance Specification

Accuracy	±0.25% FSO
Non-linearity	±0.10% FSO typical
Repeatability	±0.15% FSO typical
Hysteresis	±0.15% FSO typical
Long-term Stability	±0.3% FSO over 6 months
Ambient Temperature Limit	-20~80℃
Ambient Humidity Limit	5~100% R.H

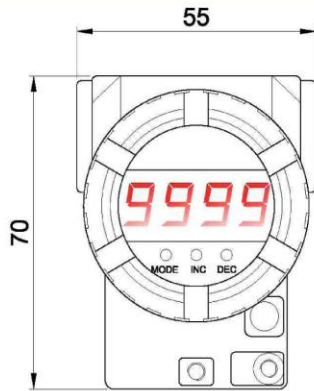
Physical Specification

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	Field case : ALDC Probe parts : Stainless steel 316
Enclosure Rate	IP65

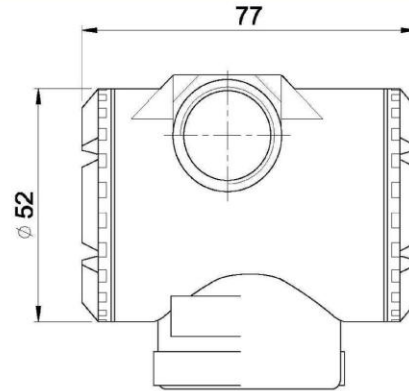
DIMENSION

Terminal Head

Front View



Side View



Wetted Parts Connection

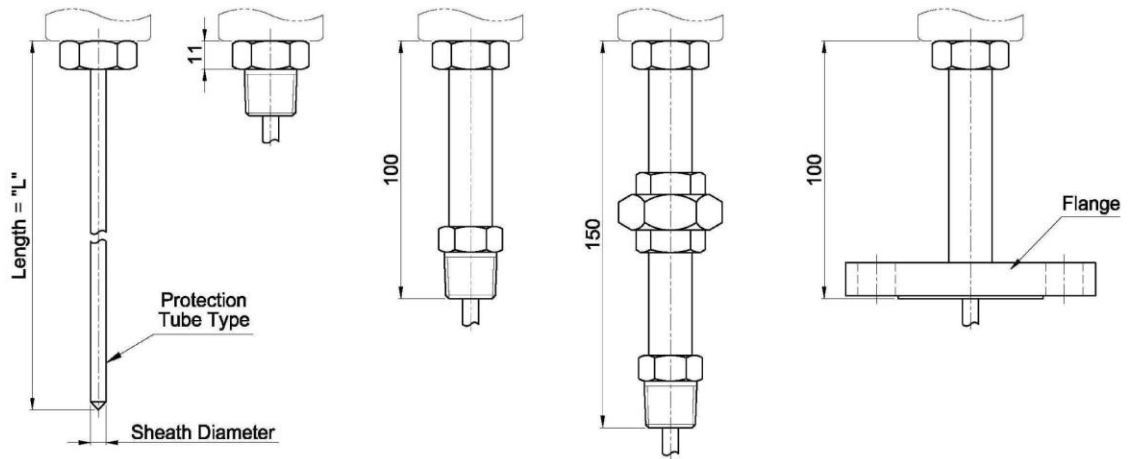
None con'n

Thread type

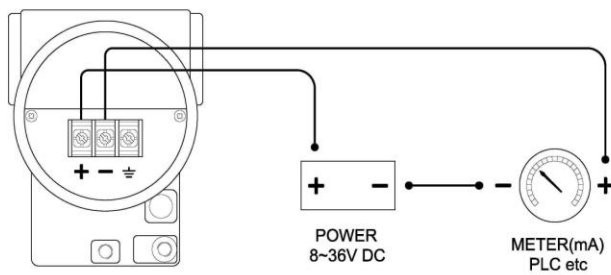
Nipple type

Union type

Flange type



Electrical Connection



ORDERING INFORMATION

Model
PR-T20

Input Signal(Sensing Element)

R : Pt 100ohm
K : Thermocouple "K" Type
J : Thermocouple "J" Type
E : Thermocouple "E" Type
T : Thermocouple "T" Type

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
121 : 0~800
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

PR-T20	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