

PT3000R**Electronic Pressure Transmitter****OUTLINE**

Model PT3000R is an electronic pressure transmitter achieving high-reliability and stability through the adoption of a silicon piezoresistive sensor. It applies to various pressure processes for small lightweight structure. Moreover, it corresponds to a wide range measurement range.

FEATURES

- High performance and quantity reliability.
High performance and quantity reliability were realized by adopting a silicon piezoresistive sensor. The high-level pressure control by high resolution (10⁻⁴) and the outstanding response (Within 1msec) is possible.
- Wide applications
A wide range pressure range and variegated connection structure make the transmitter to be used in wide instrumentation applications.
- Lightweight and compact
Lightweight and compact structure is easy handling in order not to have restriction in an installation site and mounting position.

SPECIFICATIONS

● Functions

Measurement Fluid:

Liquids and gases not corroding
stainless steels (SUS316)

Measuring Ranges: 0 ~ 10kPaG to 0 ~ 20MPaG
 -100 ~ 0kPaG to
 -100 ~ 200kPaG
 0 ~ 100kPaA to
 0 ~ 5MPaA

Over Pressure Limits: 150% of measuring range

Negative Pressure Limits: 1kPaA

Power Supply: 24VDC±2VCD

Transmission Type: 2-wire transmission type

Output: 4 ~ 20mADC

Load Resistance: Max.600Ω, at 24VDC

Temperature Range :

Compensating Temperature Range;
-10 ~ 50°COperating Temperature Range;
-30 ~ 80°C

Operating Humidity Range : 5 ~ 95%RH

● Performance

Accuracy: ± 0.25% of span

Temperature Effect (Typical):

Zero Effect; ± 0.015% of span/ °C

For 0 ~ 10kPaG ±0.02% of span/°C

Span Effect; ± 0.015% of span/ °C

Long-term Stability: ± 0.2% of span in one year

Response Time: within 1ms (time constant)

Connector Type

Terminal Box Type

Cable Type



Mounting Position Effect: Maximum 150Pa

Resolution: 10⁻⁴ (±0.01% of span)

Insulation Resistance: 100MΩ at 50VDC

Power Consumption: About 0.5W

Vibration Effect (Operating Range):

PT3011R (Connector Type);

25 ~ 2000Hz, 98m/s²

PT3012R (Cable Type);

25 ~ 2000Hz, 98m/s²

PT3013R (Terminal Box Type);

25 ~ 2000Hz, 49m/s²

● Physical Structure

Material: Wetted part; SUS316L, SUS304,
Fluoro-rubber

Case; SUS316

Case Structure: Splash-proof structure (IPX2)

Mass:

For 0 - 10kPa ~ 0 - 1MPa Range

Connector type; max.160g

Cable type; max.250g

Terminal box type; max.320g

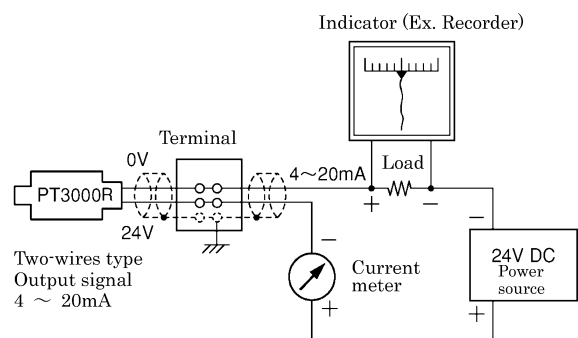
For 0 - 2MPa ~ 0 - 20MPa Range

Connector type; max.200g

Cable type; max.290g

Terminal box type; max.360g

Process connection: G1/4 male

Example of Connecting Diagram

MODEL CODE NUMBER

Basic model	Output	Electrical connection		Measuring range	Pressure unit	Process connection	Damping filter	Special specifications	Description of code
PT30	1								4 ~ 20mA DC (2-wire type)
	3								Other output
		1							Connector type
		2							Cable type *1
		3							Terminal box type *1
			R						
				01					0 ~ 10 kPaG *2
				02					0 ~ 20 kPaG *2
				03					0 ~ 50 kPaG *2
				04					0 ~100 kPa
				05					20~100 kPa
				06					0 ~200 kPa
				07					0 ~500 kPa
				08					0 ~ 1 MPa
				09					0 ~ 2 MPa
				10					0 ~ 5 MPa
				11					0 ~ 10 MPaG *2
				12					0 ~ 20 MPaG *2
				21					-100 ~ 0 kPaG *2
				22					-100 ~100 kPaG *2
				23					-100 ~200 kPaG *2
				ZZ					Special ranges *3 ("Pa" unit only)
					P				"Pa" unit of gage pressure
					A				"Pa" unit of absolute pressure
					Z				Unit other than "Pa" *4
						1			G 1/4 male
						2			G 3/8 male *5
						3			R 1/4 male *5
						4			R 3/8 male *5
						5			Special connections
							F		Freon gas application *6
							S		With filter *6
							O		Without filter (Standard type)
								Z	With special specifications
								O	Without special specifications

PT30 1 1 R 03 P 1 F 0

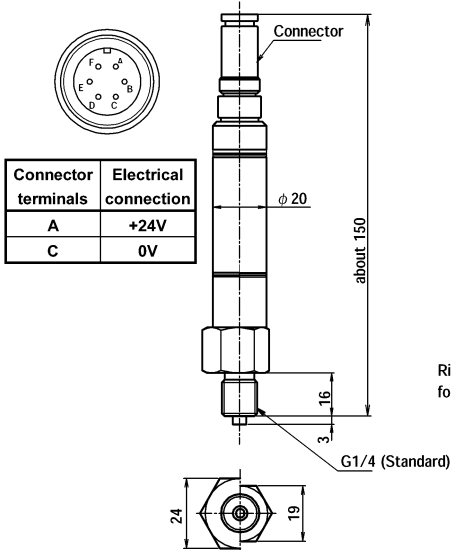
Output:
4~20mA DC
Electrical connection:
Connector type
Measuring ranges:
0~50
Pressure unit: kPaG
Process connection:
G1/4 Male
Freon gas application
-- Without special specifications

- *1 Connector type is standard.
- *2 The range of the measuring range codes [01],[02],[03],[11],[12],[21],[22] and [23] is based on the gauge type (Pressure unit code : [P])only.
- *3 When the required range is range other than measuring range codes [01] to [23], Select the code [ZZ] and specify your required range.
- *4 When the required pressure unit is unit other than "Pa" , Select the measuring range code [ZZ] and the pressure unit code [Z]. And specify your required range, required pressure unit and pressure type (gage pressure or absolute pressure).
- *5 G1/4 male is standard.
- *6 In case process media have pulsation pressure, recommend to code [S].
In case of Freon gas application (Damping filter code [F]), the filter is attached and the quality of the material of O-ring turns to CR (chloroprene rubber) up.
- *7 May be provide no your required specifications(to special ranges, special pressure unit and other special specifications). Please inquire for your required specifications.

Dimensions

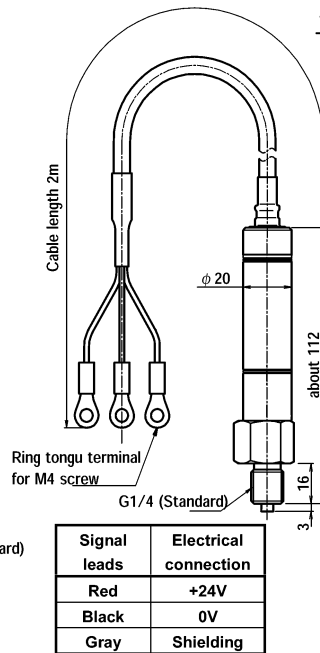
Unit: mm

Connector Type (PT30□1R□□□1□□)

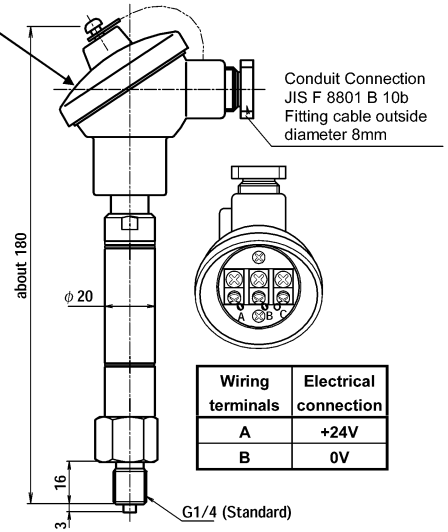


High pressure range Low/middle pressure range

Cable Type (PT30□2R□□□1□□)



Terminal Box Type (PT30□3R□□□1□□)



Conduit Connection
JIS F 8801 B 10b
Fitting cable outside
diameter 8mm

⚠ CAUTION

Do not install this device before consulting instruction manual

Specifications are subject to change without notice.

For further information, a quotation or a demonstration please contact to:

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