

Description & Features

- For temperatures from -200 to +600°C
- With replaceable measuring insert
- As single or twin resistance thermometer
- With transmitter option
- Explosion proof (EEx d IIC T5, EEx d IIC T6)

Applications

- Thermometers are preferred for measuring temperatures in liquids and gases. An important selection criterion is their reliable sealing against both negative and positive pressures. Applications include HVAC and refrigeration, as well as heating installations, ovens, furnaces and plant engineering.
- The terminal head is suitable for temperatures up to +100°C.
- The measuring insert is normally fitted with a Pt100 temperature sensor to EN 60 751, Class B in 2-wire circuit. Versions with Pt500 or Pt1000 are also available. 3-wire or 4-wire circuit connections can be provided. Optionally, it is possible to integrate a transmitter into the terminal head.

Specifications

Terminal head

- Aluminium box and temperature transmitter can be installed in JIS standard
 - Explosion-proof 304SS box (EEx d IIC T6)
 - Explosion-proof aluminium box (EEx d IIC T5)
 - Explosion-proof stainless steel box (EEx d IIC T6)
 - Field display LED/LCD Explosion-proof temperature transmitters
- Caution: reduced ambient temperature when using transmitters**

Protection tube

Material: 304SS, 316SS, 316LSS
 Outside diameter:
 Standard: 9mm, 11mm, 12mm
 Option: 6mm, 8mm, 10mm, 16mm

Measuring insert

Replaceable, Pt100 temperature 2-wire circuit ,
 3-wire circuit, 4-wire circuit

Process connection

Without thermowell
 Thermowell with threaded process connection
 Thermowell with flanged process connection
 Thermowell with sanitary type process connection
 Please refer to catalogues of thermowells

Order Information

Series/ Dial Size/ Case Materials/ Wetted Parts/ Configuration/ Connection Size/ Thread/ Range/ Option



Code: JT

Code: SX

Code: ASX

Code: BSX

Code: TTID

Transmitter

- Isolated smart temperature transmitter - Thermocouple input
- Isolated smart temperature transmitter - RTD /Thermocouple input
- Non Intrinsic safety type temperature transmitter
 2-wire transmitter with HART® protocol
- Intrinsic safety type temperature transmitter
 2-wire transmitter with HART® protocol
- Intrinsic safety type temperature transmitter Profibus PA/Foundation
 Fieldbus bus protocol

Response times

T_{0.9} approx. 50sec, in water 0.2 m/sec, 10mm dia

Protection tube

DIN 43765 Form B1, B2, B3, load capacity, see diagram 1
 DIN 43766 Form C1, C2, load capacity, see diagram 2
 DIN 43767 Form D1, D2, D3, D4, load capacity, see diagram 3
 DIN 43771 Form G1, G2, G3, load capacity, see diagram 4

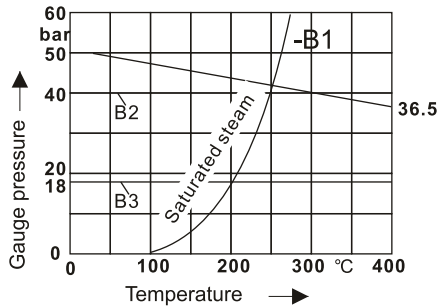


Diagram 1:

Permissible flow velocity
 For air, superheated steam: up to 25m/sec
 For water: up to 3m/sec
 Permissible tightening torque: 50Nm

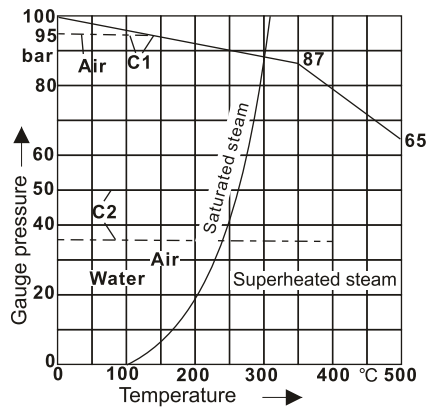


Diagram 2:

Permissible flow velocity
 For air, superheated steam: up to 40m/sec
 For water: up to 5m/sec
 Permissible tightening torque: 100Nm

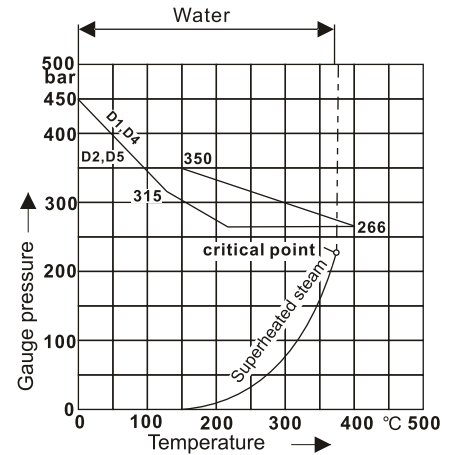


Diagram 3:

Form D1; D4: permissible flow velocity for air, water, superheated steam: up to 60m/sec
 Form D2; D5: permissible flow velocity
 For air: up to 60m/sec
 For water, superheated steam: up to 30m/sec

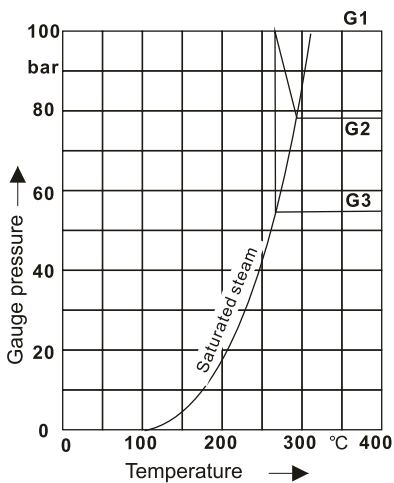
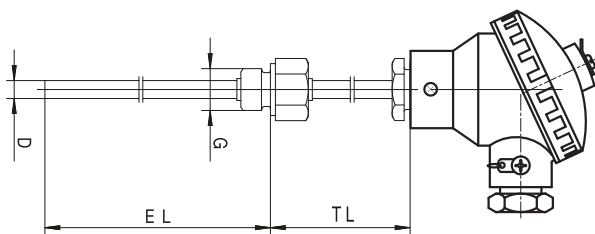


Diagram 4:

Permissible flow velocity
 For superheated steam: up to 40m/sec
 For water: up to 5m/sec
 For air: up to 400 °C

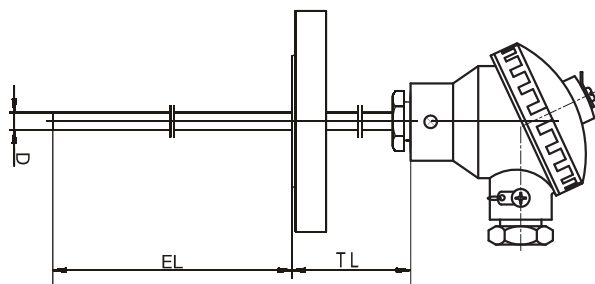
Dimensions (Unit:mm)

RTD (Resistance Temperature Detector) with Thread Connection



EL: Insertion Length
TL: Extension Length
G: Process Connection
D: Outside Diameter of Protection Tube

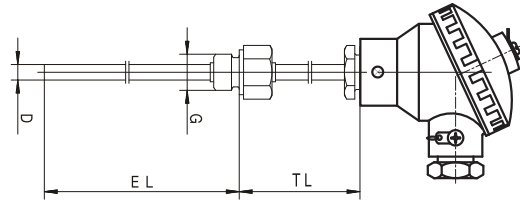
RTD (Resistance Temperature Detector) with Flanged Connection



EL: Insertion Length
TL: Extension Length
D: Outside Diameter of Protection Tube

TEJ Series Ordering Code

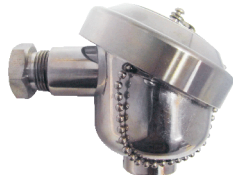
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- With replaceable measuring insert
- As single or twin resistance thermometer
- With transmitter option
- Explosion proof (EEx d IIC T5, EEx d IIC T6)



	Code	Specifications
1.	JT	Terminal Head Form Aluminium box and temperature transmitter can be installed in JIS standard
	SX	Explosion-proof 304SS box (EEx d IIC T6)
	ASX	Explosion-proof aluminium box (EEx d IIC T5)
	BSX	Explosion-proof stainless steel box (EEx d IIC T6)
	TTID	Field display LED/LCD Explosion-proof temperature transmitters
2.		Operating Temperature in °C
	201	-50...+400°C (standard)
	202	-50...+600°C
3.		Measuring Insert
	13	1xPt100 in 3-wire circuit
	14	1xPt100 in 4-wire circuit
	23	2xPt100 in 3-wire circuit
	22	2xPt100 in 2-wire circuit
	M2	1xPt1000 in 2-wire circuit
4.		Tolerance Class to EN 60 751
	1	Class B (standard)
	2	Class A
5.		Extension length TL in mm
	00	0mm
	50	50mm
	75	75mm
	100	100mm
	150	150mm
6.		Protection tube outside diameter D in mm
	06	6mm
	08	8mm
	09	9mm
	10	10mm
	11	11mm
	12	12mm
	16	16mm
ZZ	Special request	



Code: JT



Code: SX



Code: ASX



Code: BSX



Code: TTID

TEJ Series Ordering Code

Code		Specifications
7.	<input type="text"/>	Protection tube material
		T 304SS
		S 316SS
		L 316LSS
		Z Special request
8.	<input type="text"/>	Insertion Length EL in mm
		050 50mm
		075 75mm
		100 100mm
		160 160mm
		220 220mm
		250 250mm
		280 280mm
		400 400mm
		ZZZ Special request
9.	<input type="text"/>	Connection Size
		0 None
		2 1/2"
		4 1/4"
		3 3/4"
		Z Special request
10.	<input type="text"/>	Thread Type
		0 None
		N NPT
		G G
		B BSP
		T BSPT
		M M20 X 1.5
		E M27 X 2
		Z Special request
11.	<input type="text"/>	Process Connection
		00 Without thermowell
		TP Thermowell with threaded process connection
		FP Thermowell with flanged process connection
		SP Thermowell with sanitary type process connection
		ZZ Special request
12.	<input type="text"/>	Transmitter
		WO Without transmitter
		TTYR RTD input two-wire temperature transmitter (Isolated)
		TTHN Non intrinsic safety type temperature transmitter 2-wire transmitter with HART® protocol
		TTHA Intrinsic safety type temperature transmitter 2-wire transmitter with HART® protocol
		TTAF Intrinsic safety type temperature transmitter Profibus PA/Foundation Fieldbus bus protocol
		TTRC RTD/Thermocouple input two-wire temperature transmitter (USB interface, Isolated)
		ZZ Special request
Option		
13.	<input type="text"/>	SR Interchangeable inserts