Parto Sahand Ara

TCHT

TEMPERATURE THERMOCOUPLE

THERMOCOUPLE HIGH TEMPERATURE

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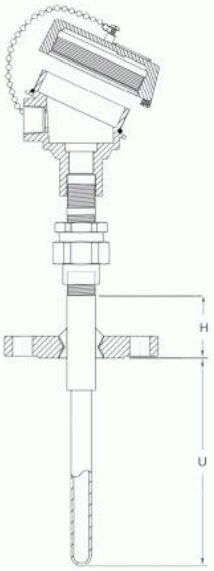
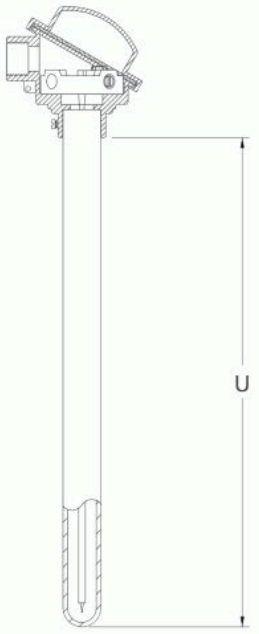
Thermocouple model : TCHT

Description



thermocouple assemblies are designed for measuring extreme high temperatures. They are manufactured using high purity and high temperature ceramics as well as oxidation and corrosion resistant metals.High purity and high temperature ceramics must be used when there is contact with noble metal thermocouple sensors (Types R, S, and B having platinum and platinum/rhodium elements) Oxidation and corrosion resistant metals can be used when there is contact with standard thermocouple sensors or as outer protection tubes. A wide variety of designs are available that include connection to process flanges, threaded fittings and direct mounting into a furnace refractory wall. These designs have options for air or inert gas purging, pressure seals, and rugged outer protection tubes.



Applications

- Cement Plants
- Energy and power plant technology
- Glass, porcelain and ceramics industries
- Incinerators
- Reactors
- Smelting Plants
- Sulphur Recovery Plants
- Power and Utilities
- ISemi-Conductor Industries
- Chemical and petrochemical industries
- Furnaces, kilns, ovens and boilers

Connection Heads

BS

B EX-PROOF

Thermocouple model : TCHT

Sensor Element:	Type R (Pt-13%Rh/Pt) Type S (Pt-10%Rh/Pt), Type B (Pt/30%Rh-Pt/6%Rh), Type K (NiCr-Ni), Type T (NiCr-Ni), Type J (Fe-CuNi), Type E (NiCr-CuNi), Type N (NiCrSi-NiSi)
Temperature range:	0 °C to +1700 °C (depending upon element and tube material)
Number of sensors:	2-wire single circuit 4-wire dual circuit

Features:

- The assembly can be supplied with or without a transmitter. Transmitters convert the millivolt input from the thermocouple to a linear analogue or digital output (commonly 4-20 mA). This signal reduces potential inaccuracies in the circuit and negates the requirement for thermocouple extension wire.
- Thermocouple temperature ranges are dependent on element calibration and inner/outer tube material.
- A variety of neck extensions are possible providing a fixture from the enclosure (connection head) to the assembly.
- Manufactured from the finest high purity, high temperature ceramics and materials.
- Pure ceramic insulators and tubes are used in conjunction with noble metal thermocouples. These provide greater resistance against contamination and premature degradation.
- A purge assembly option is available to remove any contaminant gasses that may pass from the process to the inside of the assembly tubes.
- An optional pressure seal is available to prevent the potential migration of contaminant gasses from entering the electrical enclosure.
- Secondary sealing can be included as an extra safeguard in the event of thermal or mechanical fatigue of the protective tube.
- A metal support tube can be attached over the ceramic tube when there is the possibility of any movement of the refractory lining. The length of the metal support tube should be comparable to the thickness of the refractory wall.
- The tubes available provide good thermal and mechanical shock resistance.

Thermocouple model : TCHT

Order Code

TCHT Configuration		
1	**Element**	
	R	Type R (Pt-13%Rh/Pt) 0...+1480 °C (ANSI),0...+1600 °C (DIN)
	S	Type S (Pt-10%Rh/Pt) 0...+1480 °C (ANSI), 0...+1600 °C (DIN)
	B	Type B (Pt/30%Rh-Pt/6%Rh) +870...1700 °C (ANSI), +600...+1700
	J	Type J (Fe-CuNi) / 0...+760 °C
	K	Type K (NiCr-Ni) / 0...+1260 °C
	N	Type N (NiCrSi-NiSi) / 0...+1260 °C
	E	Type E (NiCr-CuNi) / 0...+870 °C
	T	Type T (NiCr-CuNi) / 0...+870 °C
2	**Number of sensors**	
	D	Dual
	S	Single
3	**Wire of sensor**	
	1	Ø 0.30 mm (for type S,R,B)
	2	Ø 0.35 mm (for type S,R,B)
	3	Ø 0.50 mm (for type S,R,B)
	4	Ø 6.0 mm Flexibility (for other type)
	5	Ø 3.2 mm (for other type)
	6	Ø 2.3 mm (for other type)
4	**Connection head**	
	BS	BS
	Ex	B EX-PROOF
5	**Outer tube material**	
	F	Alumina Ceramic (99.7 % purity)
	C	C610 Ceramic (approx. 60 % purity)
	K	Silicon Carbide RSiC
	J	C799 Ceramic (99.7 % purity)
	S	Steel 316
	G	Steel 310
	I	Inconel 600
	*	Other - please specify

6	**Outer tube diameter**	
	G	24 mm
	B	22 mm
	C	15 mm
	*	Other - please specify
7	**Inner tube material**	
	A	Alumina Ceramic (99.7 % purity)
	I	C610 Ceramic (approx. 60 % purity)
	J	C799 Ceramic (99.7 % purity
	Z	Without
	*	Other - please specify
8	**H-Dimension** (H for ceramic thermocouple	
	***	***mm
9	**U-Dimension [U]**	
	****	****mm
10	**Terminal block / Transmitter**	
	1	Terminal block
	2	Transmitter
11	**Process connection design(option)**	
	1	Threaded bushing
	2	Stop flange DIN 43734
	3	Flange
	4	Without
12	**Process connection size**	
	**	**mm
13	**Certificates calibration**	
	1	Yes
	Z	Without

Additional order details _____

TCHT- [ ][ ][ ][ ][ ][ ][ ][ ]
1 2 3 4 5 6 7 8

[ ][ ] - [ ][ ][ ]
9 10 11 12 13

Parto Sahand Ara

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