

Melt Temperature Thermocouples



Melt Temperature Thermocouples are temperature sensors that are used in extruders where plastic melt temperatures need to be measured. Melt Temperature Thermocouples are ruggedly manufactured in 316 Stainless steel with flexible armour construction along with a high temperature plug. Various tip and body sizes ensure direct replacement of preexisting temperature probes.

Melt Temperature Thermocouples standard sizes are 6" stem length with 12" of flex armour. Longer lengths of bolt sizes and leads are also available. Normal thread size is a 1/2-20 UNF in a type J or K Thermocouple calibration.

Melt Pressure Transducers



Melt Pressure Transducers are highly accurate devices, that ensure a very high degree of stability and repeatability when measuring Extruder Melt Pressure.

Melt Pressure Transducers are available in a variety of ranges from 0 to 20,000 PSI and have overload pressure capabilities of twice the rated pressure range. They are high temperature devices that withstand 750°F (400°C) and are available with built in thermocouples, or with 18" of flex armour cables.

Melt Pressure Transducers are also available in EXPLOSION PROOF construction to meet CLASS I, DIVISION I, Group B, C, and D. Made of Stainless Steel they have an industrial standard 1/2 - 20 UNF thread along with a hex nut that facilitates installation and removal. Melt Pressure Transducers work on strain gauge principles and have the following www.hcs77.com Tel # (519) 686 2715 Fax # (519) 686 8159

Hi Temp Process Thermocouples & RTD's



Industrial Thermocouples and RTD Assemblies are manufactured using high quality contamination and chemical resistant mineral insulated RTD and thermocouple cable.

Industrial Thermocouples and RTD Assemblies have higher temperature capabilities up to (3000°F) and insure trouble free operation with minimum failure.

Industrial Thermocouples and RTD Assemblies can be manufactured with a single sensor, dual or multipoint sensors and in various diameters from .010" to 1.125" in diameter with a large variety of termination's like explosion proof heads, FDA (food) Terminal Head or with leads and plugs.

Industrial Thermocouples and RTD Assemblies Features:

Mineral insulated assemblies High pressure rated
Thermocouple or RTD calibrations High Temperature rated thermal / shock resistant
Explosion proof, moisture and chemical resistant
High performance sheath materials and design capabilities

Specifications & Design Capabilities:

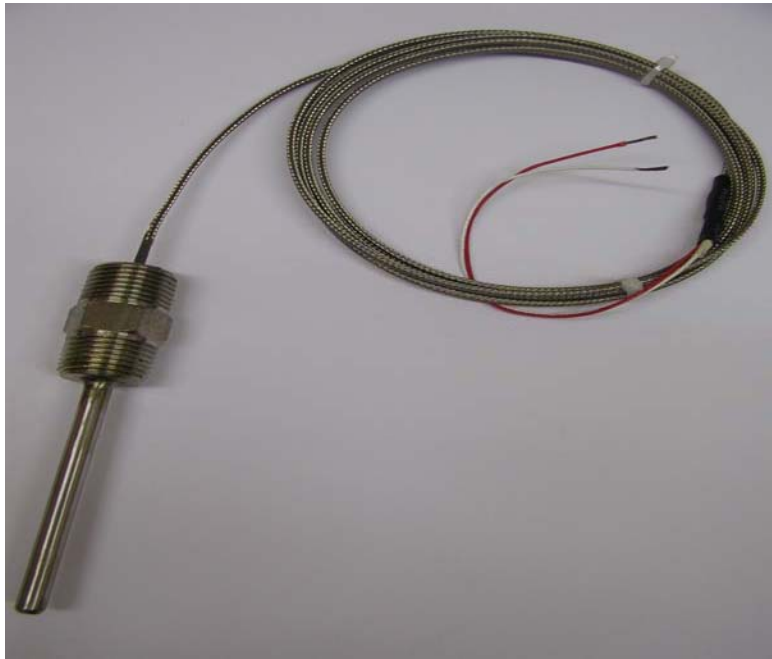
Calibration Types. . . .J, K, T, N, E, R, S, B RTD PT 100
Diameters Minimum .010" to 1.250" or more
Length 125" minimum maximum consult HCS
Leads Stainless Braid, SS Armour, PVC, Fiberglass Or Teflon
Junctions Grounded, Ungrounded, Exposed, Dual Isolated
Multipoint common, isolated or spaced Dual grounded or dual exposed ed
Termination Heads Explosion Resistant, Moisture/Chemical Resistant,
FDA (food), Polypropylene, Aluminum, thermosetting
Plastic Bare leads, Spade Lugs, Standard Male Plug Standard Female
Jack, Miniature Plugs, Jacks Right angled With or without protection
tubes
Styles Bare wire, Nipple Union Nipple, Leads, head
Process fittings, Twell fittings, flanged magnetic, Spring loaded,
Flexible .

60- Meg Dr Unit 13
London Ont N6E 3T6
Ph (519) 686 2715 Fax (519) 686 8159

Heaters Controls & Sensors Ltd

519 686 2715 www.hcs77.com 519 686 8159

Mineral Thermocouple (HCS 250XJ1/2NPT96SSW) NPT STYLE



Features:

Type	K, J T E
Wire Guage	22 SWG S S Braided
Accuracy	Class A
Protection Tube Material	Stainless steel (A),Copper ETC
Hot Junction	Grounded, Ungrounded
Temp Range	0 - 2250 Deg F Type K 0 - 1482 Deg F Type J
Lead Wire Temp	0 - 1000 Deg F

Remark: Please identify the following items when ordering:

1. Fitting NPT Size 1/8 ¼ ½ ¾ ½ " NPT
2. Screw material (Stainless steel 304 I) S S 304
3. Protection Tube Length and Lead Wire Length 4 " 96 "
4. Special screw can be made to your order.
5. Lead Wire Material S S Braided J
6. Spring material, OD, ID and length
7. Lead Wire Termination Bare Leads

Heaters Controls & Sensors Ltd

519 686 2715 www.hcs77.com 519 686 8159

Mineral Thermocouple (ZZ-MT01)



Features:

Type	K, J T E
Wire Guage	22 SWG
Accuracy	Class A
Protection Tube Material	Stainless steel (A),Copper ETC
Hot Junction	Grounded, Ungrounded
Temp.Range	0 - 2250 Deg F Type K 0 - 1482 Deg F Type J
Lead Wire Temp	0 - 1000 Deg F

Remark: Please identify the following items when ordering:

1. Screw type NPT Size 1/8 1/4 1/2 3/4
2. Screw material (Stainless steel 304 I)
3. Protection Tube Length and Lead Wire Length
4. Special screw can be made to your order.
5. Lead Wire Material
6. Spring material, OD, ID and length

Heaters Controls & Sensors Ltd

519 686 2715 www.hcs77.com 519 686 8159

Bayonet Spring Thermocouple BS TC J 48 P



Features:

Types Available	K, J, T
Wire Gauge	22 Gauge
Accuracy	Class A
Protection Tube Material	S S 304, Stainless steel
Hot Junction	Grounded, Ungrounded
Temp. Range	0 – 1000 Deg F 540 deg C
Lead Wire Temp	0 - 1000 Deg F

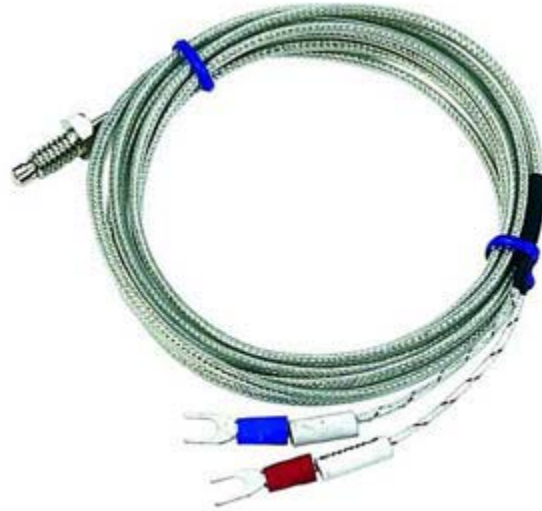
Remark: Please identify the following items when ordering:

1. Lead wire length in feet
2. Lead wire material PVC Fibreglass SS Braided Or Armour
3. Protection tube material
6. Protection tube length
7. Stainless steel armour tube material
8. Stainless steel armour tube length
9. Termination Plug Bare Leads Connectors Mini Plug

Heaters Controls & Sensors Ltd

Tel # (519) 686 2715 www.hcs77.com Fax # (519) 686 8159

Screw Type Thermocouple ST- 48SST



Features:

Type	K,J
Wire Gauge	0.5mm, 0.8mm
Accuracy	Class
Hot Junction	Grounded, Ungrounded
Temp.Range	0-400 (K) 0-350 (J)
Lead Wire Temp	0-200

Remark: Please identify the following items when ordering:

1. Screw type (W1/4, W5/16, W3/8, M6, M8)
2. Screw material (Stainless steel, Copper plating nickel)
3. Lead Wire Length
4. Special screw can be made to your order.
5. Lead Wire Material

Email hcs@hcs77.com

Thermo wells & Protection Tubes



- **Manufactured in various materials**
- **Available with tractability and registration**
- **Tapered, Straight, stepped, and flanged styles**
- **Protection tubes available for various metals**
- **Thermowells available with fittings**
- **An assortment of threads and mounting**

Thermowells and Protection Tubes are closed at one end, normally the harsh environment or process end, and opened at the termination end, various methods are used to assemble the tube, sensor, and connection head with termination into the process. Depending on the chemical or mechanical environment to which the Sensor will be subjected the material for the protection tube is selected.



Thermowells and Protection Tubes are normally used with RTD's, Thermocouples, thermometers where temperatures are to be measured in high pressure (over 150 PSI) or environments that are chemically and mechanically hostile. These Thermowells and Protection Tubes are machined from solid bar stock with high precision and accuracy and have material tractability.

To design an efficient and safe thermowell pressure, maximum temperature and velocity of the system need to be known. The various designs available are shown above however straight wells are used for low pressures and temperatures, Stepped Thermowells and Protection Tubes are used for a quick response time and medium strength. Tapered Thermowells and Protection Tubes are the most efficient and highly recommended design as they have high pressure ratings, quick thermal response and provide greater strength. These Thermowells and Protection Tubes are more resistant to vibration than straight wells and also work well in high velocity applications as the taper allows fluids to flow without restrictions.

To size Thermowells and Protection Tubes please indicate the following: Overall length, Process connection, Instrument or Sensor Connection, Type of Material, Maximum Temperature, Maximum Velocity/Pressure.

Heaters Controls & Sensors Ltd

519 686 2715 www.hcs77.com 519 686 8159

Mineral Thermocouple (HCS 250XJ1/2NPT96SSW) NPT STYLE



Features:

Type	RTD PT 100
Temperature Coefficient	0.0385
Accuracy	Class A
Protection Tube Material	Stainless steel (A), Copper ETC
Hot Junction	.750 " or less
Temp Range	- 70 to + 500 Deg C
Lead Wire Temp	0 - 500 Deg C

Remark: Please identify the following items when ordering:

1. Fitting NPT Size 1/8 1/4 1/2 3/4 1 " **1/2 " NPT**
2. Screw material (Stainless steel 304 I) **S S 304**
3. Protection Tube Length and Lead Wire Length **4 " 96 "**
4. Special screw Size can be made to order.
5. Lead Wire Material **S S Braided Or Armour**
6. Spring material, OD, ID and length
7. Lead Wire Termination **Bare Leads, Plug Or Socket . Both**