

# *Miniature Process & Plastic Thermocouples*



Plastic Thermocouples are available for hot runners injection molding machines and extruders.

Plastic Thermocouples are made of 301 stainless and use a tube and wire construction utilizing stranded thermocouple cable through out the probe.

Plastic Thermocouples are available with various types of leads like Hi temp fiberglass, PVC, SS Braided fiberglass or with Stainless Steel flexible armour cable. Plastic thermocouples are normally rated for low temperature ranges up to a thousand degrees F, however the same construction could be used for higher temperatures.

Plastic Thermocouples are also available in metric dimensions for all designs that are required.

## **Plastic Thermocouples Features:**

Adjustable depth thermocouples    Stainless steel high temp construction  
J,K,T,E, or N calibrations    Grounded, ungrounded or exposed junctions  
Washer, nozzle, pipe clamp, bayonet cap, shim stock or rt angled  
High temperature leads, armour, braided, fiberglass or PVC Termination's bare wire, lugs, plugs, jacks

## **Plastic Thermocouples Specifications and Design Capabilities**

Calibration Types. . . . J, K, T, N, E, R, S, RTD  
Diameters. . . . . Minimum .040" to 3/4" or more  
Length. . . . . .125" minimum  
Leads. . . . . . Stainless Braid, SS Armour, PVC, Fiberglass  
Junctions. . . . . . Grounded, Ungrounded, Exposed, Dual Isolated  
Termination. . . . . . Bare leads, Spade Lugs, Male Plug, Female Jack  
Bayonet sizes. . . . . . 10mm, 12mm, 15mm, 1/2" etc.  
Pipe Clamp Sizes. . . . . . 1/2 -1.250, 1-2.250, 2.250-3.250, 4-5 5-6"  
Washer Type. . . . . . No 6, 8, 10, 1/4" 3/8" or metric  
Shim Size. . . . . . 3/4" X 3/4" X .010"  
Bayonet probe. . . . . . 3/16" dia 1/2" long  
Nozzle Thread. . . . . . 1/4" x 28 UNF 6 mm or M6 x 1  
Right angled. . . . . . 1/4 or 3/16" OD various length  
When ordering specify style, calibration type, termination and lead length

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

## 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](http://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:**

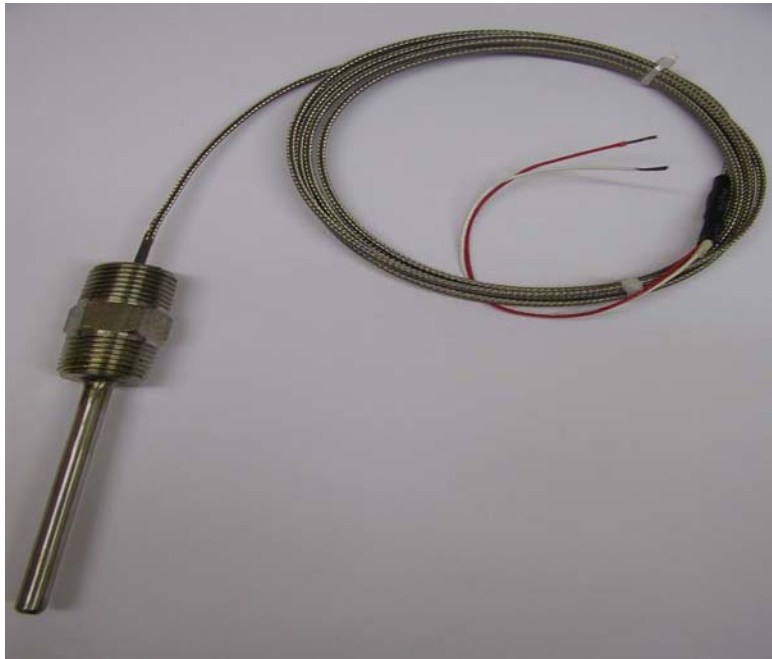
Calibration Types. . . .J, K, T, N, E, R, S, B RTD PT 100  
Diameters Minimum .010" to 1.250" or more  
Length 125" minimum maximum consult HCS  
Leads Stainless Braid, SS Armour, PVC, Fiberglass Or Teflon  
Junctions Grounded, Ungrounded, Exposed, Dual Isolated  
Multipoint common, isolated or spaced 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 .

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# Heaters Controls & Sensors Ltd

519 686 2715 [www.hcs77.com](http://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

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## Mineral Thermocouple (ZZ-MT01)

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### 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 l)
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

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## Bayonet Spring Thermocouple BS TC J 48 P

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### 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:

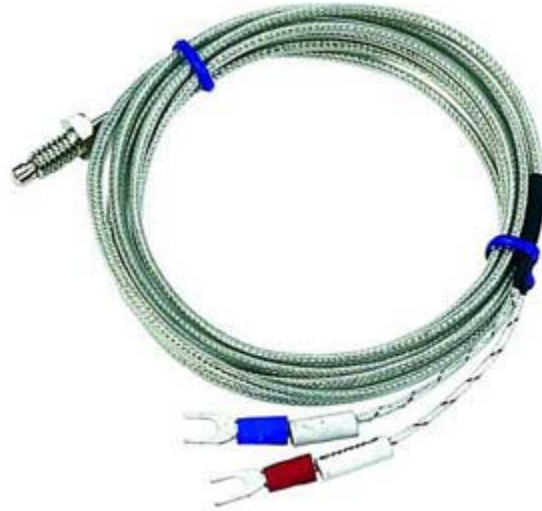
1. Lead wire length in feet
2. Lead wire material PVC Fibreglass SS Braided Or Armour
3. Protection tube material
6. Protection tube length
7. Stainless steel armour tube material
8. Stainless steel armour tube length
9. Termination Plug Bare Leads Connectors Mini Plug

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## Screw Type Thermocouple ST- 48SST

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### 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](mailto:hcs@hcs77.com)