

Sensors for Plastic Machinery



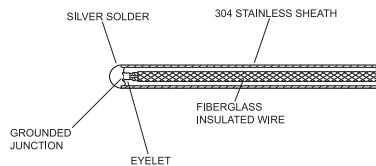
Ideal for

- Plastic forming machinery

The following J and K thermocouples and industry standard PT-100 RTDs are for use on plastic forming machinery. Other types of sensors are also available. We have a broad offering of styles and accessories. See our Sensor Product Guide for the complete selection.

Element Construction

Elements are made from fiberglass insulated wire inside a 304 stainless steel protection tube. Type J elements are silver soldered for rapid response. Type K assemblies are welded for strength at temperature.

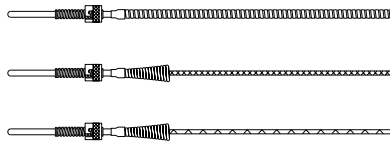


Construction

Protection tubes can be either 1/8" or 3/16" diameter. Flexible extensions are available with "BX" style armor, stainless steel overbraid, or regular fiberglass insulation.

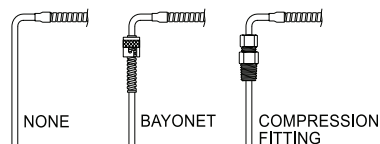
Mounting Fittings

These assemblies are available with plain tubes, industry standard bayonet fittings and either nickel plated brass or stainless steel compression fittings.



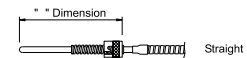
Configuration

Thermocouples and RTDs are available in straight, 45° or 90° configuration in either single or dual elements. Dual element assemblies use 24 gauge wire.

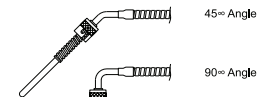


Terminations

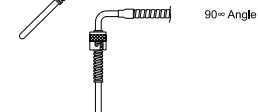
Several terminations are available:



Straight



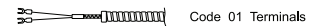
45° Angle



90° Angle



Code 00 Stripped Leads



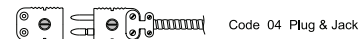
Code 01 Terminals



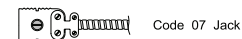
Code 02 Terminals & Box Connect



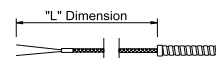
Code 03 Plug



Code 04 Plug & Jack



Code 07 Jack



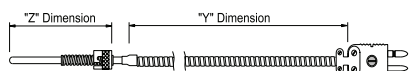
Code F 12 Inch "L" Dimension
G 24 Inch
H 48 Inch
J 96 Inch
K 144 Inch

Ordering codes

Fixed Depth Immersion Thermocouples and RTDs

with Bayonet lock (with armor)

Industry	Element	Config	Construction	Termination	Reserved	Y Dimension	Style	Immersion
P			33		00		4	

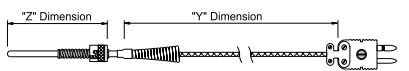


Element	Configuration	Termination	Y Dimension
01 Type J, 20 gauge solid wire 05 Type K, 20 gauge solid wire 72 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 932°F 76 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 500°F	1 Straight, single element 2 90° single element 3 45° single element	0 2-1/2 inch split leads, ends stripped 1 2 1/2 inch split leads, spade lugs 2 2 1/2 inch split leads, lugs and box connector 3 Solid pin quick disconnect plug	Flexible length in whole inches, 6 inch increments, 18 inch min. (use 3 digits)
Construction			Immersion
33 Closed end, grounded (TC) 33 Leadwire with flexible armor (RTD)			See table 1 for Z dimension immersion depth

Fixed Depth Immersion Thermocouples and RTDs

with Bayonet lock (with stainless steel overbraid)

Industry	Element	Config	Construction	Termination	Reserved	Y Dimension	Style	Immersion
P			31		00		4	

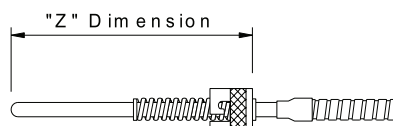


Element	Configuration	Termination	Y Dimension
08 Type K, solid w/SS overbraid 11 Type J, stranded w/SS overbraid 72 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 932°F 76 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 500°F	1 Straight, single element 2 90° single element 3 45° single element	0 2-1/2 inch split leads, ends stripped 1 2 1/2 inch split leads, spade lugs 2 2 1/2 inch split leads, lugs and box connector 3 Solid pin quick disconnect plug	Flexible length in whole inches, 6 inch increments, 18 inch min. (use 3 digits)
Construction			Immersion
31 Closed end, grounded (TC) 31 No lead, or lead w/SS overbraid (RTD)			See table 1 for Z dimension immersion depth

TABLE 1:

codes for "Z" dimension on bayonet thermocouples

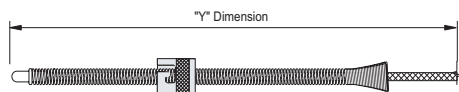
03 = 2-1/2".....29 = 4-1/8".....40 = 5-7/8"
20 = 2-5/8".....30 = 4-1/4".....10 = 6"
21 = 2-3/4".....31 = 4-3/8".....41 = 6-1/8"
22 = 2-7/8".....07 = 4-1/2".....42 = 6-1/4"
04 = 3".....32 = 4-5/8".....43 = 6-3/8"
23 = 3-1/8".....33 = 4-3/4".....11 = 6-1/2"
24 = 3-1/4".....34 = 4-7/8".....44 = 6-5/8"
25 = 3-3/8".....08 = 5".....45 = 6-3/4"
05 = 3-1/2".....35 = 5-1/8".....46 = 6-7/8"
26 = 3-5/8".....36 = 5-1/4".....12 = 7"
27 = 3-3/4".....37 = 5-3/8".....47 = 7-1/8"
28 = 3-7/8".....09 = 5-1/2".....48 = 7-1/4"
06 = 4".....38 = 5-5/8".....49 = 7-3/8"
39 = 5-3/4".....13 = 7-1/2"



Varidepth® Adjustable Depth Thermocouples and RTD's

Immersion Bayonet (Spring Style)

Industry	Element	Config	Construction	Termination	Reserved	Y Dimension	Style	Reserved
P		1	31		00		B	00

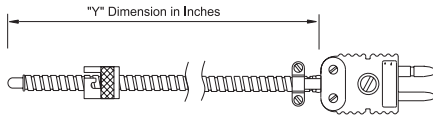


Element	Termination	Configuration	Style
08 Type K, 20 gauge solid w/SS overbraid 11 Type J, 20 gauge stranded w/SS overbraid 72 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 932°F 76 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 500°F	0 2-1/2 inch split leads, ends stripped 1 2 1/2 inch split leads, spade lugs 2 2 1/2 inch split leads, lugs and box connector 3 Solid pin quick disconnect plug	1 Single element (TC) 1 Reserved (RTD)	B 12 inch spring, standard lock cap
Construction		Y Dimension	
31 Closed end, grounded (TC) 31 Reserved (RTD)		Flexible length in whole inches, 6 inch increments, 18 inch min. (use 3 digits)	

Ordering codes

Varidepth® Adjustable Depth Immersion Bayonet Thermocouples and RTD's (armor clad in flexible tube)

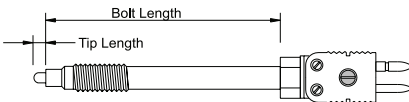
Industry	Element	Config	Construction	Termination	Reserved	Y Dimension	Style	Reserved
P		1	33		00		6	00



Element	Termination	Configuration	Y Dimension
01 Type J, 20 gauge solid wire	0 2-1/2 inch split leads, ends stripped	1 Single element (TC)	Flexible length in whole inches, 6 inch increments, 18 inch min. (use 3 digits)
05 Type K, 20 gauge solid wire	1 2 1/2 inch split leads, spade lugs	1 Single element, straight (RTD)	
72 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 932; F	2 2 1/2 inch split leads, lugs and box connector	Construction	
76 RTD, PT-100, 0.00385Ω/Ω/°C, 0.1% accuracy, 500; F	3 Solid pin quick disconnect plug	33 Closed end, grounded flexible tube (TC)	33 Reserved (RTD)

Melt Bolt Thermocouples Fixed Depth Immersion (type J only)

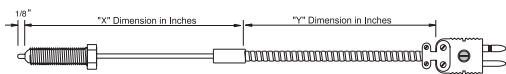
Industry	Element	Config	Construction	Termination	Bolt Length	Flexible Length	Style	Tip Length
P	01	1	51	3		000	1	



Element	Configuration	Bolt Length	Tip Length
01 Type J, 20 gauge solid wire	1 Single element	03 3 inches	01 1/8 inch
Termination		04 4 inches	02 3/16 inch
3 Solid pin quick disconnect plug	Construction		03 1/4 inch
		06 6 inches	
			51 Closed ended, grounded, flexible tube, fiberglass insulation

Nozzle Melt Thermocouples (type J only)

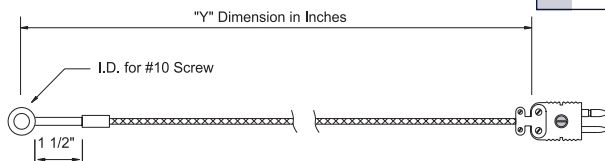
Industry	Element	Config	Construction	Termination	X Dimension	Y Dimension	Style	Tip Length
P	16	1	21	3	00		5	



Element	Configuration	X Dimension	Tip Length
16 Type J, 20 gauge standard with MgO insulation	1 Single element, straight	00 5 inch rigid length	01 1/8 inch
Termination		Y Dimension	
3 Solid pin quick disconnect plug	21 Closed end, grounded, no flexible tube	Flexible length in whole inches, 6 inch increments, 18 inch min. (use 3 digits)	
			03 1/4 inch
			05 1/2 inch
			07 3/4 inch

Ring Style Thermocouples (type J only)

Industry	Element	Reserved	Reserved	Termination	Reserved	Y Dimension	Style	Ring
P	01	1	00		00		7	11



Element	Termination	Y Dimension	Ring
01 Type J, 20 gauge solid wire	0 2-1/2 inch split leads, ends stripped	Flexible length in whole inches, 6 inch increments, 18 inch min. (use 3 digits)	11 Ring 5/16 inches OD, 1/4 inch thick, stainless steel, #10 screw
	1 2 1/2 inch split leads, spade lugs		
	2 2 1/2 inch split leads, lugs and box connector		
	3 Solid pin quick disconnect plug		