

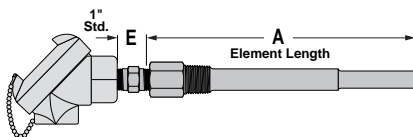
# SPECIAL PURPOSE

# THERMOCOUPLE ASSEMBLIES in THERMOWELLS

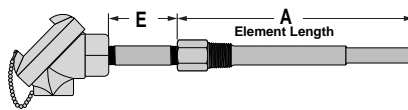
Copyright © 1993, Pyromation, Inc.

The thermocouple elements and assemblies described on this page are for use with .260" ID and .385" ID drilled or flanged thermowells and are supplied with 1/4" or 3/8" OD 304 SS sheaths or as ceramic insulated elements. Complete thermocouple and thermowell assemblies can be ordered by selecting the desired thermocouple assembly information from this page and selecting the desired thermowell from pages SP-24 and SP-25. All thermocouple elements are supplied as standard limits of error. MgO insulated elements are supplied with **grounded** hot junctions and ceramic insulated elements are supplied with **exposed** hot junctions as standard.

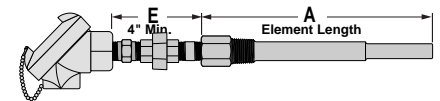
HEX FITTING



NIPPLE EXTENSION



NIPPLE UNION



EXAMPLE ORDER NUMBER:

**1** **J49G** - **2** Thermowell Selection from SP-24 or SP-25 - **3** **801** - **4** **53** - **5** **R**

MGO INSULATED THERMOCOUPLE ELEMENTS				
1/4" OD 304 SS SHEATHS for .260" BORE THERMOWELLS		3/8" OD 304 SS SHEATHS for .385" BORE THERMOWELLS		T/C ELEMENT TYPE
ORDER CODE	ORDER CODE	ORDER CODE	ORDER CODE	
<b>SINGLE</b>	<b>DUPLEX</b>	<b>SINGLE</b>	<b>DUPLEX</b>	
<b>E49G</b>	<b>EE49G</b>	<b>E69G</b>	<b>EE69G</b>	<b>(E)</b>
<b>J49G</b>	<b>JJ49G</b>	<b>J69G</b>	<b>JJ69G</b>	<b>(J)</b>
<b>K49G</b>	<b>KK49G</b>	<b>K69G</b>	<b>KK69G</b>	<b>(K)</b>
<b>T49G</b>	<b>TT49G</b>	<b>T69G</b>	<b>TT69G</b>	<b>(T)</b>

For ungrounded hot junctions, change order code digit 'G' to 'U'.  
Example: J49U

CERAMIC INSULATED THERMOCOUPLE ELEMENTS				
20 GA. ELEMENTS for .260" BORE THERMOWELLS		14 GA. ELEMENTS for .385" BORE THERMOWELLS		T/C ELEMENT TYPE
ORDER CODE	ORDER CODE	ORDER CODE	ORDER CODE	
<b>SINGLE</b>	<b>DUPLEX</b>	<b>SINGLE</b>	<b>DUPLEX</b>	
<b>E20R</b>	<b>EE20R</b>	-----	-----	<b>(E)</b>
<b>J20R</b>	<b>JJ20R</b>	<b>J14R</b>	<b>JJ14R</b>	<b>(J)</b>
<b>K20R</b>	<b>KK20R</b>	<b>K14R</b>	<b>KK14R</b>	<b>(K)</b>
<b>T20R</b>	<b>TT20R</b>	<b>T14R</b>	<b>TT14R</b>	<b>(T)</b>

Above elements are supplied with exposed junctions. For insulated junctions, add suffix code 'L' to above order code.  
Example: J20RL

**2** Select Desired Drilled or Flanged Thermowell Order Code Number From Page SP-24 or SP-25

ASSEMBLY OPTIONS	
ORDER CODE	DESCRIPTION
<b>I</b>	S. Steel tag (1" x 2" x .040" - specify tag ID)
<b>M</b>	Special limits of error element
<b>R</b>	Spring loaded MgO element

HEAD TERMINATIONS	
ORDER CODE	DESCRIPTION
<b>19</b>	Explosion proof screw cover
<b>31</b>	Aluminum screw cover
<b>34</b>	Cast iron screw cover
<b>53</b>	Delrin screw cover (T/C standard)
<b>63</b>	Polypropylene screw cover (RTD standard)

HEAD OPTIONS	
ORDER CODE	DESCRIPTION
<b>B</b>	Head with internal ground screw
<b>W</b>	White epoxy coating (head codes 19, 31, 34)
<b>HS</b>	Head w/wire seal security screws

WELL EXTENSIONS "E"			
ORDER CODE	ORDER CODE	ORDER CODE	EXTENSION "E" LENGTH
STEEL	304 SS	316 SS	
<b>601</b>		<b>801</b>	1" hex fitting
<b>604</b>	<b>904</b>	<b>804</b>	4" with nipple
<b>6--</b>	<b>9--</b>	<b>8--</b>	Specify 'E' lgth. in inches
<b>604P</b>	<b>904P</b>	<b>804P</b>	4" with nipple/union
<b>6--P</b>	<b>9--P</b>	<b>8--P</b>	Specify 'E' lgth. in inches

Replacement sensors and sensors with a head and mounting fitting can be ordered from catalog sections, "Industrial Thermocouples" (ceramic insulated element types), and from "MgO Insulated Thermocouples". The "X" immersion length (element length below the mounting thread) can be determined by using these formulas.

"X" IMMERSION LENGTH (BELOW MOUNTING THREADS) FORMULAS		
IMMERSION STYLE	ASSEMBLY with HEAD, MTG, FITTING, and SENSOR	REPLACEMENT SENSOR ONLY
Fixed	X = WELL "A" LENGTH MINUS 1/2"	X = WELL "A" + "E" LENGTH PLUS 1"
Spring loaded sheaths	X = WELL "A" LENGTH	X = WELL "A" + "E" LENGTH PLUS 1"