

# General Industry Thermocouples

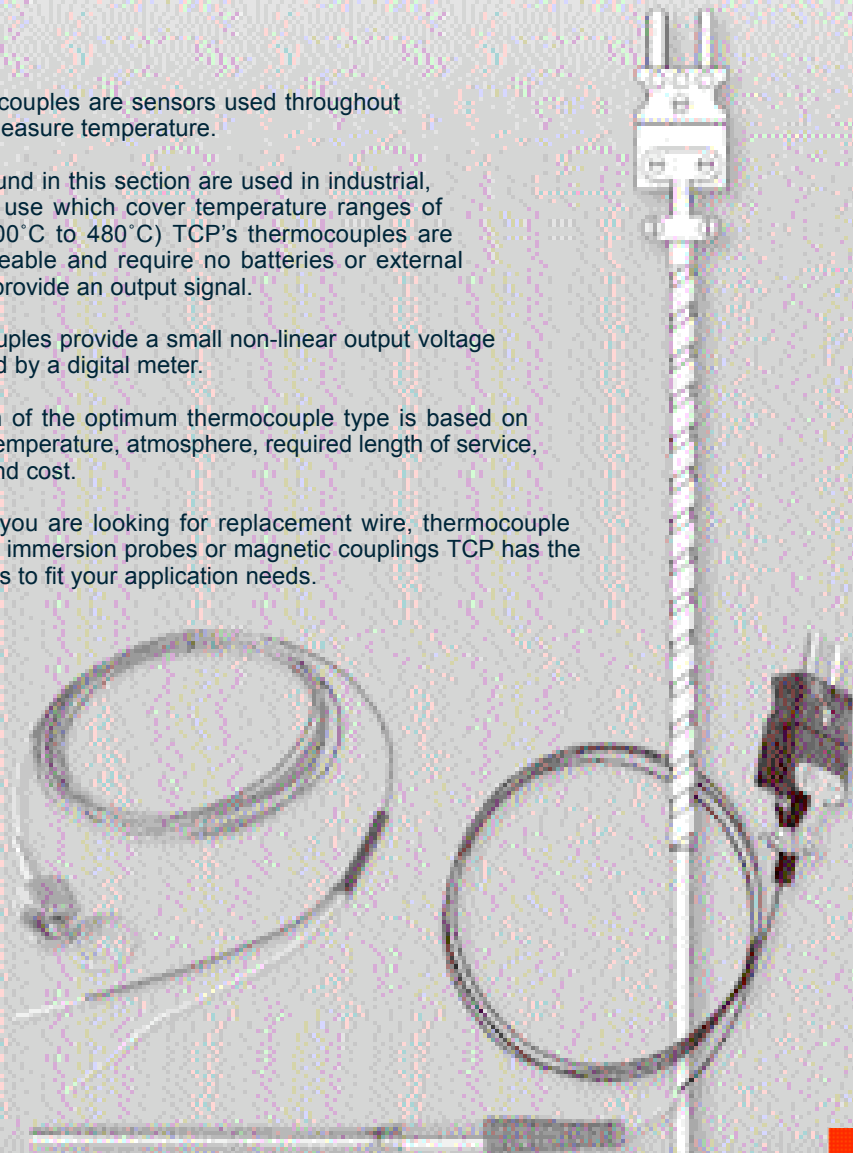
General Industry Thermocouples are sensors used throughout various applications to measure temperature.

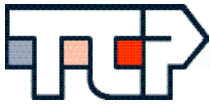
The thermocouples found in this section are used in industrial, OEM and laboratory use which cover temperature ranges of  $-328^{\circ}$  to  $900^{\circ}$ F. ( $-200^{\circ}$ C to  $480^{\circ}$ C) TCP's thermocouples are rugged, interchangeable and require no batteries or external power sources to provide an output signal.

TCP's thermocouples provide a small non-linear output voltage that can be read by a digital meter.

The selection of the optimum thermocouple type is based on application temperature, atmosphere, required length of service, accuracy and cost.

Whether you are looking for replacement wire, thermocouple sheaths, immersion probes or magnetic couplings TCP has the products to fit your application needs.





Thermo-Couple Products Co.

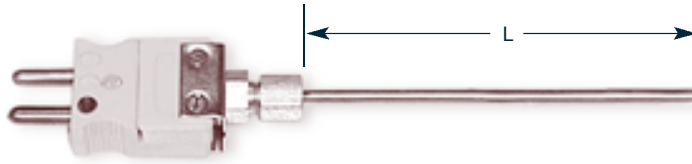
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# PENCIL THERMOCOUPLE

## Series 5500

- Ideal for Applications Under 900°F (480°C)
- Small Diameter Thermocouple with Fiberglass Insulation
- Used Extensively for Food Applications
- Commonly Installed with Compression Fittings (Adapter)
- Used in a Variety of Industries



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5500  -  -  -  -  -  -

5500 -  -  -  -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
Consult factory for other calibrations	

CODE	SHEATH DIAMETER
D	.125"
E	.187"
F	.250"
Consult factory for other diameters	

IMMERSION LENGTH "L"
Specify in inches 01 to 99 (6 inch increments standard). For lengths over 99 inches consult factory.

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	TERMINATION STYLE
10	111 Standard Plug
20	131 Mini Plug
111 Plug is standard	
Consult factory for other options	

CODE	SHEATH MATERIAL
304	304 Stainless Steel
316	316 Stainless Steel
304SS is standard	
Consult factory for other material	

CODE	JUNCTION STYLE
W2	Grounded Rounded Tip
W4	Ungrounded Rounded Tip
Code W2 is standard	

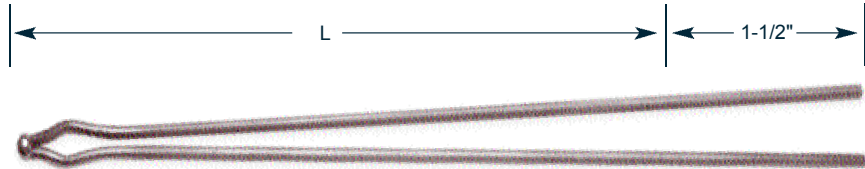
**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

# REPLACEMENT ELEMENTS

## Series 5504

- Bare wire element
- May be used as a Replacement Thermocouple Element in Existing Thermowells and Protection Tubes.
- The Units are Available in All Calibrations and Meet Standard or Special Limits of Error (Special Limits of Error Must Be Specified).
- Platinum Calibrations Available in 25 Gauge Conductors Only.



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5504

-  -  -


5504 -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

LENGTH "L"
Specify in inches 01 to 99

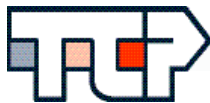
CODE	WIRE GAUGE SIZE
8	8 Gauge
14	14 Gauge
20	20 Gauge
25	25 Gauge
25 Gauge can only specify R, S or B. Consult factory for other sizes.	



**Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm



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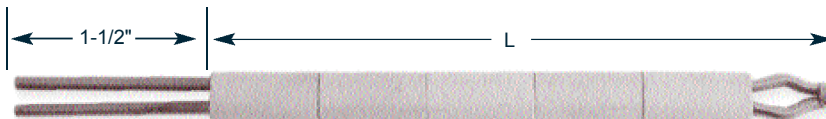
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# REPLACEMENT ELEMENTS

## Series 5504A

- Bare Wire Element with Ceramic Insulators
- May Be Used as a Replacement Thermocouple Element in Existing Thermowells and Protection Tubes.
- The Units are Available in All Calibrations and Meet Standard or Special Limits of Error (Special Limits of Error Must Be Specified).
- Platinum Calibrations Available in 25 Gauge Conductors Only.



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5504A -  -  -  -

5504A -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
R	Plat. 13% Rhod./Plat.
S	Plat. 10% Rhod./Plat.
B	Plat. 30% Rhod./Plat. 6% Rhod.
For duplex calibrations, please indicate double letters, example EE.	

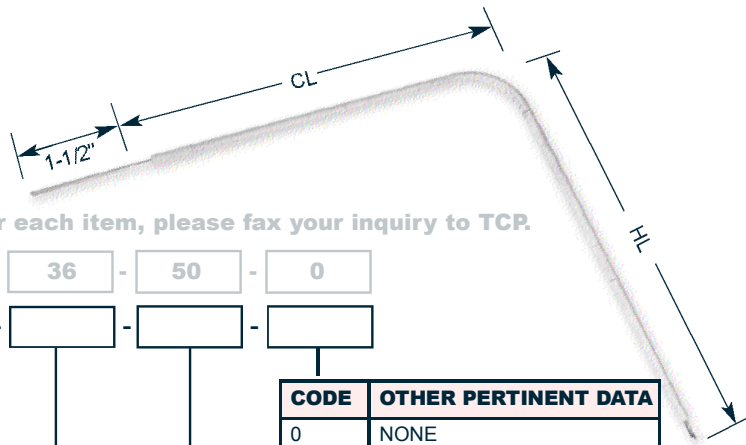
CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

LENGTH "L"
Specify in inches 01 to 99

CODE	WIRE GAUGE SIZE
8	8 Gauge
14	14 Gauge
20	20 Gauge
25	25 Gauge
25 Gauge can only specify R, S or B. Consult factory for other sizes.	

## Series 5504B

- May Be Used as a Replacement Thermocouple Element in Existing Thermowells and Protection Tubes.
- These Units are Available in All Calibrations and Meet Standard or Special Limit of Error (Special Limits of Error Must Be Specified)



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5504B -  -  -  -  -

5504B -  -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
Consult factory for other calibrations	

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

COLD LEG "CL"
Specify in inches 01 to 99

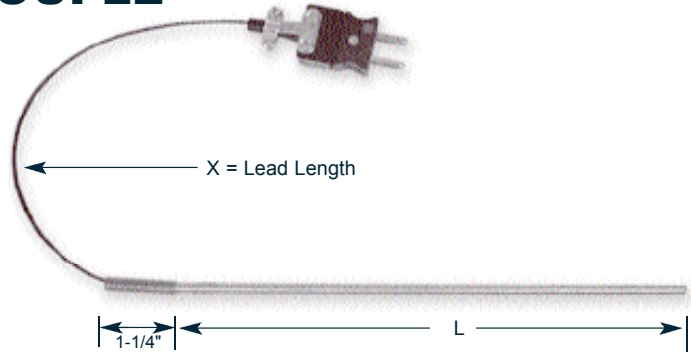
CODE	WIRE GAUGE SIZE
8	8 gauge
14	14 gauge
20	20 gauge
Consult factory for other sizes	

HOT LEG "HL"
Specify in inches 01 to 99

# IMMERSION THERMOCOUPLE

## Series 5508

- Recommended for Temperatures Up to 900°F (480°C) Except with Junction Style W-5 Which is Rated for 300°F (150°C)
- Available in .187" and .250" Diameters
- Fiberglass or Teflon Insulation with Optional SS Overbraid



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5508  -  -  -  -  -  -  -  -

5508 -  -  -  -  -  -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
Consult factory for other calibrations	

CODE	SHEATH DIAMETER
E	.187"
F	.250"
Consult factory for other diameters	

IMMERSION LENGTH "L"
Specify in inches 01 to 99 (6 inch increments standard). For lengths over 99 inches consult factory.

LEAD LENGTH "X"
Specify in whole inches 01 to 99

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
W3	Ungrounded Flat Tip
W4	Ungrounded Rounded Tip
W5	Exposed
Code W2 is standard	

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	LEAD WIRE
10	Fiberglass (standard)
1S	Fiberglass w/SS Overbraid
20	Teflon
2S	Teflon w/SS Overbraid
If flex hose is needed see 5508A series.	

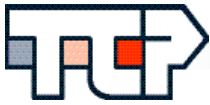
CODE	TERMINATION STYLE
10	111 Standard Plug
20	131 Mini Plug
40	3" Pig Tail
Code 10 - 111 Plug is standard	

CODE	SHEATH MATERIAL
304	304 Stainless Steel
316	316 Stainless Steel
600	Inconel 600
Consult factory for other options	

**! Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm



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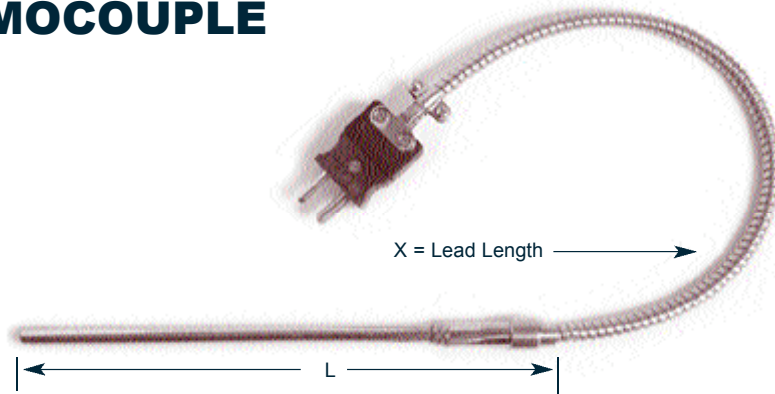
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# IMMERSION THERMOCOUPLE

## Series 5508A

- Recommended for Temperatures up to 900°F (480°C) with Junction Style W-5 which is Rated for 300°F (150°C)
- A Stainless Steel Flexible Armor Encases the Extension Lead to Prevent Mechanical Abrasion.



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5508A - J - E - 6 - 10 - W2 - 304 - 10 - 10 - 0

5508A - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
Consult factory for other calibrations	

CODE	SHEATH DIAMETER
E	.187"
F	.250"
Consult factory for other diameters	

IMMERSION LENGTH "L"
Specify in inches 01 to 99 (6 inch increments standard). For lengths over 99 inches consult factory.

LEAD LENGTH "X"
Specify in whole inches 01 to 99

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	LEAD WIRE
10	Fiberglass (standard)
20	Teflon

CODE	TERMINATION STYLE
10	111 Standard Plug
20	131 Mini Plug
40	3" Pig Tail
Code 10 - 111 Plug is standard	

CODE	SHEATH MATERIAL
304	304 Stainless Steel
316	316 Stainless Steel
600	Inconel 600
Consult factory for other material	

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
W3	Ungrounded Flat Tip
W4	Ungrounded Rounded Tip
W5	Exposed
Code W2 is standard	

**Metric Orders Welcome**

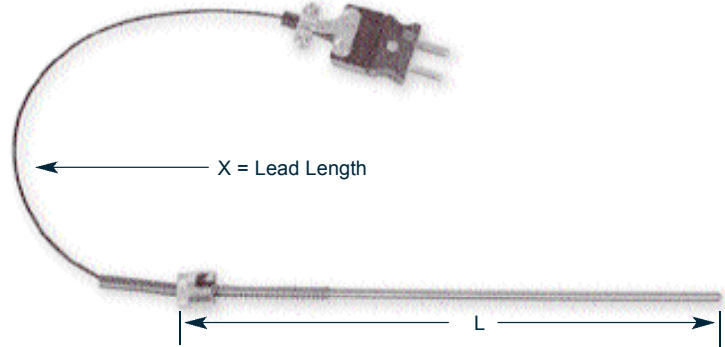
Place an **mm** in the appropriate selection box:

100 mm

# CONTACT THERMOCOUPLE

## Series 5513

- Recommended for Plastic Molding and Bearing Temperature Measurements up to 900°F (480°C).
- An Ideal Assembly Where Constant Contact of the Hot Junction is Required to Indicate Rapid Temperature Changes
- Spring Loaded Bayonet Cap



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5513 -  -  -  -  -  -  -  -  -

5513 -  -  -  -  -  -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
Consult factory for other calibrations	

CODE	SHEATH DIAMETER
D	.125"
E	.187"
Consult factory for other diameters	

IMMERSION LENGTH "L"
Specify in inches 01 to 99 (6 inch increments standard). For lengths over 99 inches consult factory.

LEAD LENGTH "X"
Specify in whole inches 01 to 99

CODE	JUNCTION STYLE
W1	Grounded Flat Tip
W2	Grounded Rounded Tip
Code W2 is standard	

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	LEAD WIRE
10	Fiberglass (standard)
1S	Fiberglass with SS Overbraid
20	Teflon
2S	Teflon with SS Overbraid
Code 10 - 111 Plug is standard	

CODE	TERMINATION STYLE
10	111 Standard Plug
20	131 Mini Plug
40	3" Pig Tail
Code 10 - 111 Plug is standard	

CODE	SHEATH MATERIAL
304	304 Stainless Steel
316	316 Stainless Steel
600	Inconel 600
Consult factory for other material	

**! Metric Orders Welcome**

Place an **mm** in the appropriate selection box:

100 mm



# NEEDLE POINT THERMOCOUPLE

## Series 5514

- Designed for Piercing Food Products
- Supplied with an Insulated Element Encased in 316 or 304 Stainless Steel Sheath
- Recommended for a Temperature Range of -40°F (-40°C) to +500°F (+260°C)
- Supplied with W2 Grounded Junction



Enter a selection for each item, please fax your inquiry to TCP.

Example: 5514 - J - D - 6 - 304 - 10 - 10 - 0

5514 -  -  -  -  -  -  -

CODE	WIRE CALIBRATION
J	Iron/Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan

Consult factory for other calibrations

CODE	SHEATH DIAMETER
C	.062"
D	.125"
E	.187"

Consult factory for other diameters

IMMERSION LENGTH "L"
Specify in inches 01 to 99 (6 inch increments standard). For lengths over 99 inches consult factory.

CODE	OTHER PERTINENT DATA
0	NONE
999	Special Request Consult Factory

CODE	INSULATION MATERIAL
10	Fiberglass

Consult factory for other options

CODE	TERMINATION STYLE
10	111 Standard Plug
20	131 Mini Plug

Code 10 - 111 Plug is standard

CODE	SHEATH MATERIAL
304	304 Stainless Steel
316	316 Stainless Steel

**Metric Orders Welcome**

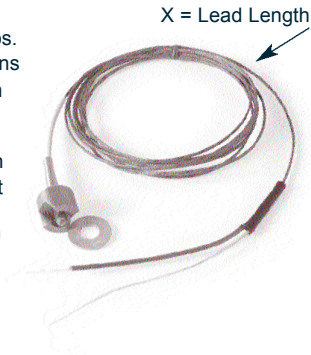
Place an **mm** in the appropriate selection box:



# MAGNE-COUPLE

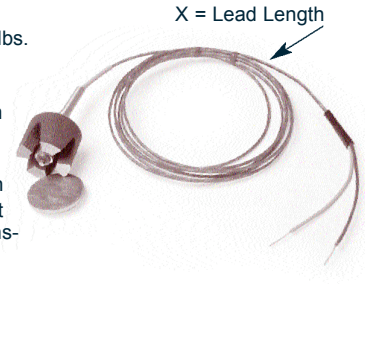
## Series 5526

- Magnet holding force is 2 lbs.
- For limited space applications
- Measures temperature from any ferrous surface
- Capable of use to 1000°F (535°C) without degradation
- The powerful Alnico Magnet forces the springloaded sensing tip into contact with the sensor surface
- 1/2" Magnet diameter



## Series 5527

- Magnet holding force is 16 lbs.
- Rugged Assembly for most applications
- Measures temperature from any ferrous surface
- Capable of use to 1000°F (535°C) without degradation
- The powerful Alnico Magnet forces the springloaded sensing tip into contact with the sensor surface
- 1" Magnet diameter



5526 - J - 72 - 10 - 40 - 0

Examples

5527 - K - 72 - 10 - 40 - 0

5526 - [ ] - [ ] - [ ] - [ ] - [ ]

5527 - [ ] - [ ] - [ ] - [ ] - [ ]

CODE	WIRE CALIBRATION
J	Iron/ Constantan
K	Chromel/Alumel
T	Copper/ Constantan
E	Chromel/Constantan
Consult factory for other calibrations	
LEAD LENGTH "X"	
Specify in inches 01 to 99	
72 inches is standard	
CODE	LEAD WIRE
10	Fiberglass (Standard)
1S	Fiberglass with SS Overbraid
20	Teflon
2S	Teflon with SS Overbraid
2F	Teflon with SS Flexhose
CODE	TERMINATION STYLE
10	111 Standard Plug
20	131 Mini Plug
40	3" Pig Tail
3" Pig Tail is Standard	
CODE	OTHER PERTINENT DATA
0	NONE
999	Special Lead Length Consult Factory

Also available in RTD  
 Please contact the  
 factory for more  
 information.

**Metric Orders Welcome**

Place an **mm** in the appropriate selection box: