

# General Industry Thermocouples

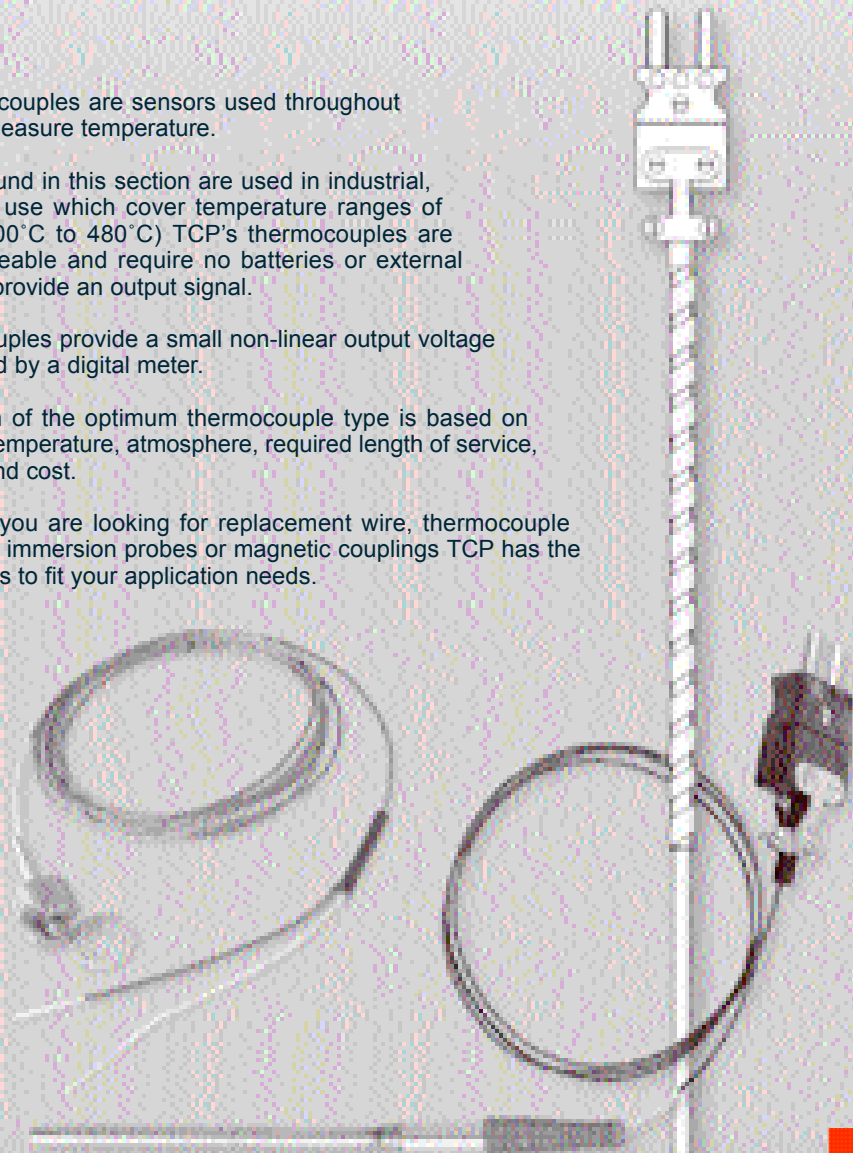
General Industry Thermocouples are sensors used throughout various applications to measure temperature.

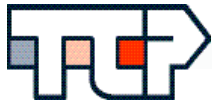
The thermocouples found in this section are used in industrial, OEM and laboratory use which cover temperature ranges of  $-328^{\circ}$  to  $900^{\circ}$ F. ( $-200^{\circ}$ C to  $480^{\circ}$ C) TCP's thermocouples are rugged, interchangeable and require no batteries or external power sources to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



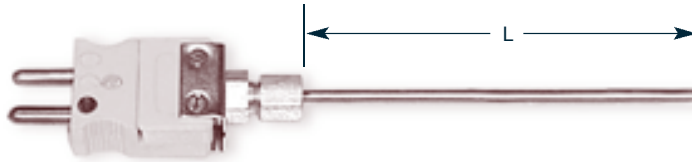


Thermo-Couple Products Co.

# 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<br>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 |                        |

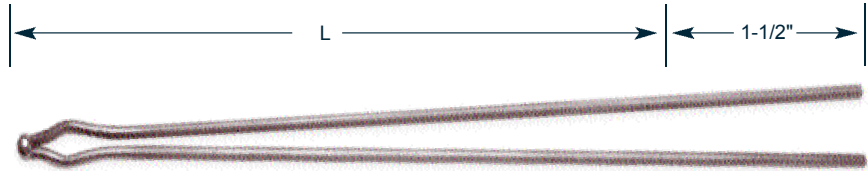
**Metric Orders Welcome**

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.<br>6% Rhod. |

| CODE | OTHER PERTINENT DATA               |
|------|------------------------------------|
| 0    | NONE                               |
| 999  | Special Request<br>Consult Factory |

| LENGTH "L"                 |
|----------------------------|
| Specify in inches 01 to 99 |

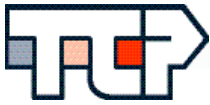
| CODE   | WIRE GAUGE SIZE |
|--|-----------------|
| 8  | 8 Gauge         |
| 14   | 14 Gauge        |
| 20   | 20 Gauge        |
| 25   | 25 Gauge        |
| 25 Gauge can only specify R, S or B.<br>Consult factory for other sizes. |                 |



**Metric Orders Welcome**

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

100 mm



Thermo-Couple Products Co.

# 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. |                                |

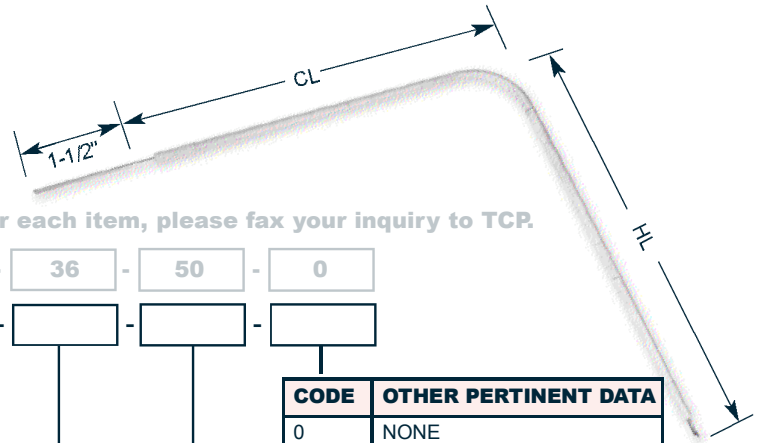
| CODE | OTHER PERTINENT DATA            |
|------|---------------------------------|
| 0    | NONE                            |
| 999  | Special Request Consult Factory |

| 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 |

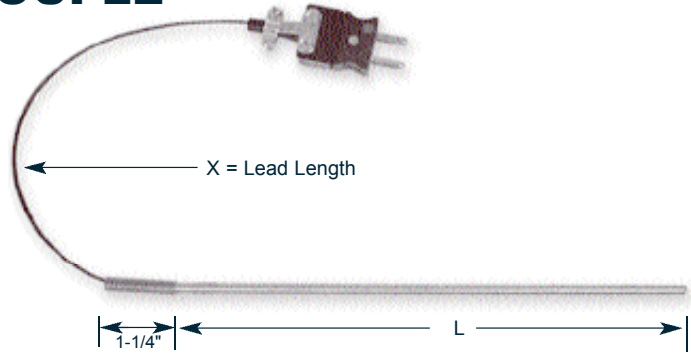
| CODE                            | WIRE GAUGE SIZE |
|---------------------------------|-----------------|
| 8                               | 8 gauge         |
| 14                              | 14 gauge        |
| 20                              | 20 gauge        |
| Consult factory for other sizes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

| 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<br>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. |                           |

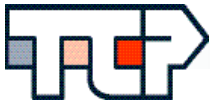
| CODE                           | TERMINATION STYLE |
|--------------------------------|-------------------|
| 10                             | 111 Standard Plug |
| 20                             | 131 Mini Plug     |
| 40                             | 3" Pig Tail       |
| Code 10 - 111 Plug is standard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

| 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

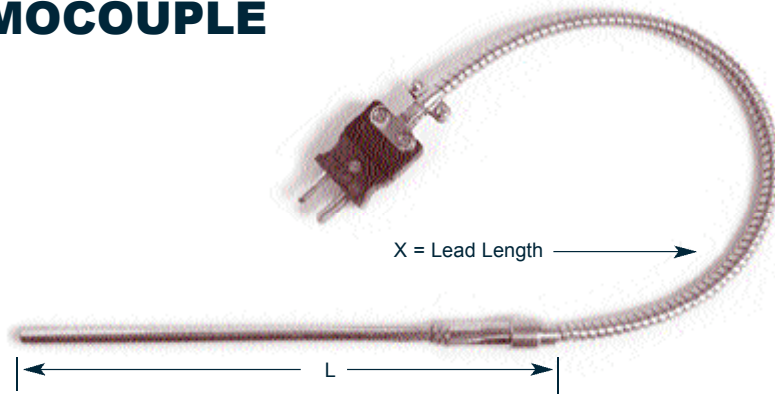


Thermo-Couple Products Co.

# 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<br>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**

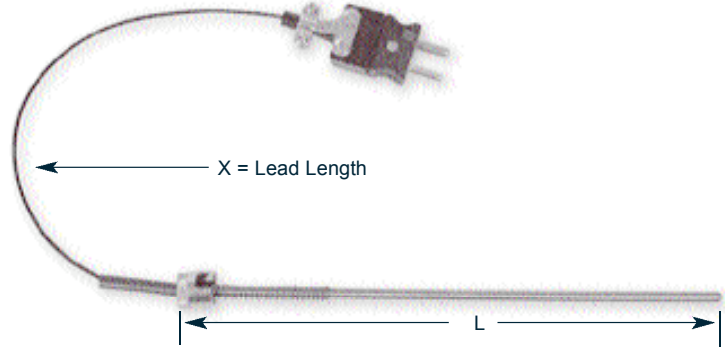
Place an **mm** in the appropriate selection box:

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<br>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 |                              |

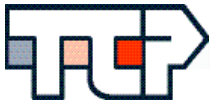
| CODE                           | TERMINATION STYLE |
|--------------------------------|-------------------|
| 10                             | 111 Standard Plug |
| 20                             | 131 Mini Plug     |
| 40                             | 3" Pig Tail       |
| Code 10 - 111 Plug is standard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

| 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



Thermo-Couple Products Co.

# 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 -  -  -  -  -  -  -

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<br>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**

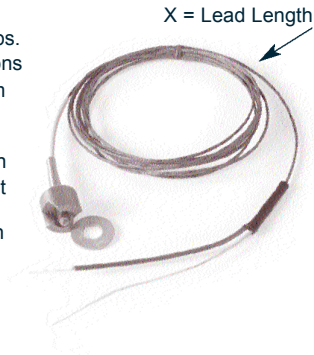
Place an **mm** in the appropriate selection box:



# MAGNE-COUPLE

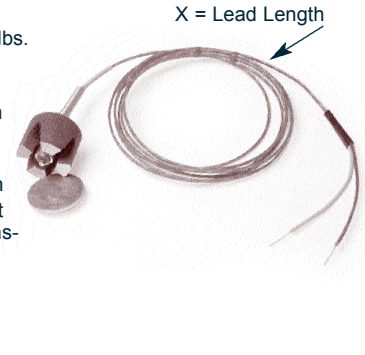
## Series 5526

- 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: