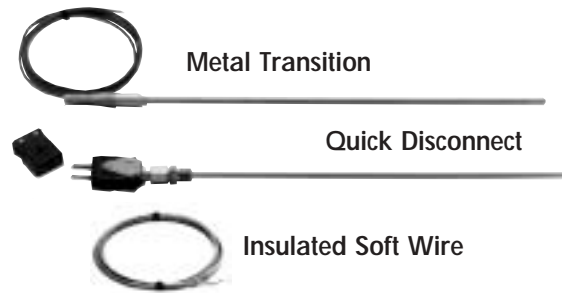




- Quick Disconnect Thermocouple Assemblies 316 SS-Ungrounded Junction
- Rugged Metal Transition Thermocouple/RTD Assemblies with Teflon Coated Lead Wire
- Flexibility of XACTPAK® Material
- Thermocouple Insulated Softwire Standard Lengths
- ANSI Color Coded Thermocouple Connectors with Exclusive Channel Design
- Adjustable Compression Fittings



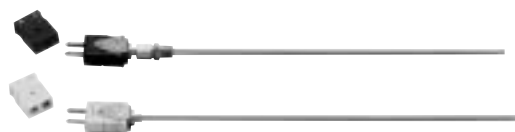
| Type | Temperature/Range | Tolerance [†] |
|------|--------------------------|------------------------|
| J | 32 to 1382°F 0 to 750°C | ±2.2°C or ±0.75% |
| K | 32 to 2282°F 0 to 1250°C | ±2.2°C or ±0.75% |
| T | 32 to 662°F 0 to 350°C | ±1.0°C or ±0.75% |
| E | 32 to 1652°F 0 to 900°C | ±1.7°C or ±0.5% |
| KX* | 32 to 392°F 0 to 200°C | ±2.2°C or ±0.75% |

*Extension Wire-Type For Fahrenheit, multiply tolerance in °C by 1.8.

Simpson has expanded its line of temperature accessories by adding soft-wire thermocouples, mineral-insulated (MI) temperature assemblies, connectors and compression fittings. Soft wire thermocouples are available in five insulation types and varying gauge sizes to satisfy a wide range of temperature requirements. Metal transition thermocouple/RTD assemblies feature ANSI color coded plug and jack connectors for easy connection, saving you time and allow extra protection against frequent bending and twisting. Each MI probe is manufactured with XACTPAK®. Unlike

other MI thermocouples, the flexibility of the XACTPAK® material allows you to bend the thermocouple without risk of cracking. Lightweight, rugged, and accurate, Simpson's standard connectors isolate all wire for clean, strong signals. In addition, adjustable compression fittings are offered to set immersion length in the field. All thermocouples meet Standard Tolerances per ANSI MC96.1-1982. For thermo-electric voltage information please refer to the following pages.

Quick Disconnect Assemblies



Quick disconnect thermocouple assemblies are fast-reading, durable, and capable of handling higher temperatures than uninsulated types. The compacted XACTPAK® MI insulation further enhances the sensors ability to "read" temperature by transferring heat quickly to the measuring junction while it protects the thermocouple from moisture and thermal shock. The 12 inch, 3/16 inch in diameter thermocouple probe has an ungrounded junction and is made of 316 stainless steel.

Specifications

316 Stainless Steel Best corrosion resistance of the austenitic stainless steel grades. Good corrosion resistance in H2S. Subject to damaging carbide precipitation 900°-1600°F (482°-871°F) range.

Ungrounded Junction This type of thermocouple junction is fully insulated from the welded sheath end. The ungrounded junction is excellent for applications where stray EMFs would affect the reading and for frequent or rapid temperature cycling. Response time is 2.5 seconds.

Forming The XACTPAK® sheath can be formed around a mandrel twice the sheath diameter without damage.

Ordering Information

| Type | ANSI Color Code | Max. Operating Temperature | Catalog Number |
|------|-----------------|----------------------------|----------------|
| J | Black | 1500°F | 21238 |
| K | Yellow | 1600°F | 21239 |

Note: All selections include standard plug and jack connectors.

Accessories

Compression Fittings These adjustable fittings can be applied at any point along the sheath. They are used to mount a thermocouple assembly at a given depth, or to mount a thermocouple head on an assembly.

| Single Threaded Catalog# | Sheath O.D. Length Inches | Bore ±0.001 Inches | Male NPT Inches | Hex Across Flats Inches |
|--------------------------|---------------------------|--------------------|-----------------|-------------------------|
| 21253 | 1-1/4" | 3/16 | 1/8 | 1/2 |

Metal Transition Assemblies



Metal transition thermocouple/RTD assemblies are offered in J, K, and Platinum 100 RTD calibrations. They provide maximum temperature measurements of 1650°F (900°C), for excellent corrosion resistance. The probe includes 48 inches of FEP Teflon® coated thermocouple wire and stripped leads. The coiled spring strain relief protects the wire against sharp bends in the transition area. All insulation resistance for RTD values meet DIN 0.00385 standard tolerance class B.

Specifications

316 Stainless Steel

Best corrosion resistance of the stainless steel grades. Good corrosion resistance in H₂S. Widely used in the food and chemical industry. Subject to damaging carbide precipitation 900°-1600°F (482°-871°F) range.

Ungrounded Junction

This type of thermocouple junction is fully insulated from the welded sheath end. The ungrounded junction is excellent for applications where stray EMFs would affect the reading and for frequent or rapid temperature cycling. Response time is 2.5 seconds.

Maximum Continuous

Operating Temperature Epoxy rated at 300°F (150°C) for the transition.

Ordering Information

| Type | ANSI Color Code | Max. Operating Temperature | Catalog Number |
|------|-----------------|----------------------------|----------------|
| J | Black | 1500°F | 21242 |
| K | Yellow | 1600°F | 21243 |
| RTD | White | 1200°F | 21244 |

Accessories

Compression Fittings

Mounting fittings can be applied at any point along the sheath. They are used to mount a thermocouple assembly at a given depth, or to mount a thermocouple head on an assembly. The compression fittings are adjustable types.

| Single Threaded Catalog# | Sheath O.D. Length | Bore ±0.001 Inches | Male NPT Inches | Hex Across Flats Inches |
|--------------------------|--------------------|--------------------|-----------------|-------------------------|
| 21253 | 1-1/4" | 3/16 | 1/8 | 1/2 |

Quick Disconnect Assemblies



Soft-wire thermocouple are available in five insulation types and in varying gauge sizes. All soft wire selections have beaded butt welded measurement junctions. For cold junction terminations, standard thermocouple selections have eye terminal (1/4" screw size) for use with analog meters. Custom thermocouple have solid bare wire.

Specifications

| Type | Temperature Rating | | Physical Properties | | |
|-------------------|--------------------|----------------|---------------------|---------------------|---------------------|
| | Continuous | Single Reading | Abrasion Resistance | Moisture Resistance | Chemical Resistance |
| Glass Braid | 900°F (482°C) | 1000°F (538°C) | Fair | Good | Good |
| Glass Braid | 900°F (482°C) | 1000°F (538°C) | Fair | Good | Good |
| Double Glass Wrap | 900°F (482°C) | 1000°F (538°C) | Fair | Good | Good |
| Teflon® | 400°F (204°C) | 500°F (260°C) | Excellent | Excellent | Excellent |
| High Temp. Braid | 1300°F (704°C) | 1600°F (871°C) | Good | Good | Good |

Ordering Information

Standard

| Cat. No. | Description |
|----------|---|
| THJ105 | T/C J, 24 Gauge, Fiber Glass Braid, 5 foot |
| THJ1015 | T/C J, 24 Gauge, Fiber Glass Braid, 15 foot |
| THK105 | T/C K, 24 Gauge, Fiber Glass Braid, 5 foot |
| THI1015 | T/C K, 24 Gauge, Fiber Glass Braid, 15 foot |
| THJ035 | T/C J, 24 Gauge, FEP Teflon®, 5 foot |
| THJ315 | T/C J, 24 Gauge, FEP Teflon®, 15 foot |

® Trade name of E.I. DuPont de Nemours & Co.