

hotcontrol

Thermocouples – RTDs

General information for all thermocouples and RTDs

- All dimensions are subject to general tolerances according to DIN 2768-m. Our tolerances in most cases exceed DIN 2768-m standards. Exact tolerances for your item are available on request.
- All thermocouples can be produced with ANSI color code. Other standards are available on request.
- All dimensions for mineral insulated thermocouples are subject to tolerances according to EN 61515.

Mineral Insulated Thermocouples

Technical key features

| | |
|--------------------------|---|
| Lead cross-section | 0.22 mm ² |
| Minimum bending radius | 5.0 x sheath diameter |
| Classification tolerance | Class 1 or 2 (DIN 60584) Standard, Special (ANSI 96.1) |

Options

- Measuring point grounded or ungrounded (grounded just possible for MIT < 3.0 mm)
- Bend protection spring



Performance Range

| Dia-meter [mm] | Types | Connection head [mm] | Lead Options | Number of thermo-couples |
|----------------|---------|----------------------|--|--------------------------|
| 0.5 | J, K, L | Ø 6 x 30 | GLS/GLS/MB | 1 x |
| 0.75 | J, K, L | Ø 6 x 30 | GLS/GLS/MB | 1 x |
| 1.0 | J, K, L | Ø 3.2 x 23 | Kapton/Kapton GLS/Kapton GLS/GLS | 1 x |
| 1.0 | J, K, L | Ø 4 x 22 | any | 1 x |
| 1.5 | J, K, L | Ø 3.2 x 23 | Kapton/Kapton GLS/Kapton GLS/GLS | 1 x |
| 1.5 | J, K, L | Ø 4 x 22 | any | 1 x |
| 2.0 | J, K, L | Ø 4 x 22 | any | 1 x |
| 2.0 | J, K, L | Ø 6 x 30 | GLS/GLS/MB PFA/PFA | 2 x |
| 3.0 | J, K, L | Ø 6 x 30 | any | 1 x or 2 x |
| 4.5 | J, K, L | Ø 6 x 30 | any | 1 x or 2 x |
| 6.0 | J, K, L | Ø 8 x 50 | GLS/GLS/MB | 1 x or 2 x |

Lead Types

| Lead Types | Max. Temperature | |
|---------------|------------------|--------|
| PFA/PFA | 260 °C | 500 °F |
| GLS/GLS (MB*) | 400 °C | 750 °F |
| Kapton/Kapton | 350 °C | 600 °F |
| GLS/Kapton | 350 °C | 600 °F |
| PFA/Kapton | 260 °C | 500 °F |
| PFA/PFA/MB | 260 °C | 500 °F |

Material information from the inside to the outside.
Duplex MIT available with MB/GLS/GLS and PFA/PFA.
* Glass silk insulated leads with glass silk insulated casing and metal braided protection sleeve.

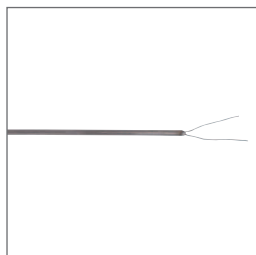
Thermocouple Type Specifications

| Type | Material | Standard | Lead Colors [+/-] | Sheath Material | Measurement Range | |
|------|----------|--------------|-------------------|------------------|-------------------|----------------|
| J | Fe-CuNi | IEC 60584 | black/white | 1.4541/AISI 321 | -40 to +750 °C | -40 to 1380 °F |
| L* | Fe-CuNi | DIN 43710* | red/blue | 1.4541 | -40 to +750 °C | -40 to 1380 °F |
| K | NiCr-Ni | IEC 60584 | green/white | 2.4816/Alloy 600 | -40 to +1100 °C | -40 to 2010 °F |
| K* | NiCr-Ni | DIN 43710* | red/green | 2.4816 | -40 to +1100 °C | -40 to 2010 °F |
| J | Fe-CuNi | ANSI MC 96.1 | white/red | 1.4541 | -40 to +750 °C | -40 to 1380 °F |
| K | NiCr-Ni | ANSI MC 96.1 | yellow/red | 2.4816 | -40 to +1100 °C | -40 to 2010 °F |

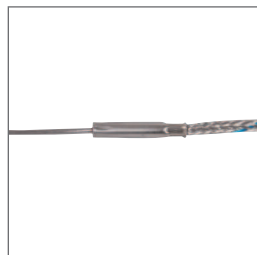
* Obsolete standard, usually for existing installations.

Other materials on request.

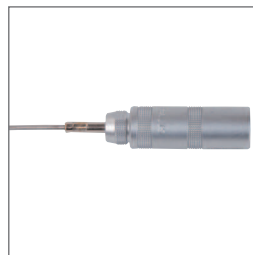
Connection Type Range



BLANK
Open ends



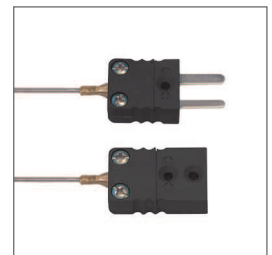
LEAD
Connection head
(260 or 400 °C / 500
or 750 °F) and cable



LEMO
LEMO connector (female)
max. 250 °C / 480 °F



Standard
male/female connector,
max. 200 °C / 390 °F



Mini
male/female connector,
max. 200 °C / 390 °F

Mineral Insulated Thermocouples

Stock range

All with bend protection spring, lead length 2000 mm, measuring point ungrounded, Connection type LEAD

| Stock ID | Type | Dimensions [mm] | Connection head (260 °C / 500 °F) [mm] | Lead Type |
|----------|------|-----------------|--|------------|
| 8512090 | J | Ø 1.0 x 90 | Ø 4 x 22 | GLS/GLS MB |
| 8512091 | L | Ø 1.0 x 90 | Ø 4 x 22 | GLS/GLS MB |
| 8512150 | J | Ø 1.0 x 150 | Ø 4 x 22 | GLS/GLS MB |
| 8512151 | L | Ø 1.0 x 150 | Ø 4 x 22 | GLS/GLS MB |
| 8501090 | J | Ø 1.5 x 90 | Ø 4 x 22 | GLS/GLS MB |
| 8501091 | L | Ø 1.5 x 90 | Ø 4 x 22 | GLS/GLS MB |
| 8501150 | L | Ø 1.5 x 150 | Ø 4 x 22 | GLS/GLS MB |
| 8501151 | J | Ø 1.5 x 150 | Ø 4 x 22 | GLS/GLS MB |
| 8501240 | J | Ø 1.5 x 240 | Ø 4 x 22 | GLS/GLS MB |
| 8501241 | L | Ø 1.5 x 240 | Ø 4 x 22 | GLS/GLS MB |
| 8511091 | K | Ø 1.5 x 90 | Ø 4 x 22 | GLS/GLS MB |
| 8511150 | K | Ø 1.5 x 150 | Ø 4 x 22 | GLS/GLS MB |

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Thermocouples – RTDs

Mineral Insulated RTDs

Technical key features

| | |
|--------------------------|--|
| Lead cross-section | 0.22 mm ² |
| Minimum bending radius | 5.0 x sheath diameter |
| Classification tolerance | Class A or B |
| Wire circuit | 2-wire-circuit: class B 3- and 4-wire-circuit: class A or B |



Options

- Bend protection spring

Performance Range

| Diameter [mm] | Types | Connection head [mm] | Lead Options | Number of RTDs |
|---------------|---------|----------------------|--------------|----------------|
| 2.0 | Pt 100 | Ø 6 x 30 | any | 1 x |
| 3.0 | | | | |
| 4.5 | Pt 1000 | Ø 8 x 50 | | |
| 6.0 | | | | |

Lead Types

| Lead Types | Max. Temperature | |
|-------------------|------------------|--------|
| PFA/PFA | 260 °C | 500 °F |
| GLS/GLS (MB*) | 400 °C | 750 °F |
| Silicone/Silicone | 180 °C | 355 °F |

Material information from the inside to the outside.

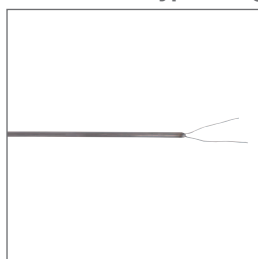
* Glass silk insulated leads with glass silk insulated casing and metal braided protection sleeve.

Type Specifications

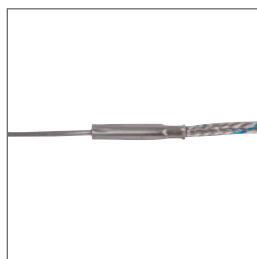
| Type | Material | Standard | Lead Colors [+-] | Sheath Material | Measurement Range |
|---------|----------|--------------|------------------|-----------------|-------------------------------|
| Pt 100 | Platinum | DIN EN 60751 | red/white | 1.4404 | -50 to +600 °C -50 to 1120 °F |
| Pt 1000 | Platinum | DIN EN 60751 | red/white | 1.4404 | -50 to +600 °C -50 to 1120 °F |

Other materials on request.

Connection Type Range



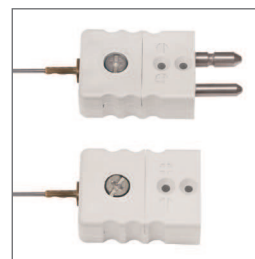
BLANK
Open ends



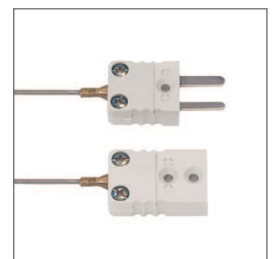
LEAD
Connection head
(260 or 400 °C / 500
or 750 °F) and cable



LEMO
LEMO connector (female)
max. 250 °C / 480 °F



Standard
male/female connector
max. 200 °C / 390 °F



Mini
male/female connector
max. 200 °C / 390 °F

Compression Fittings for Mineral Insulated Thermocouples and RTDs

PTFE Clamping ring

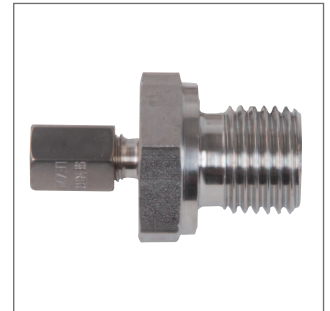
max 200 °C / 390 °F
 max pressure 10 bar
 removable

Stainless Steel Clamping ring

max. 500 °C / 930 °F
 max. pressure 40 bar
 not removable after tightening

Stock Range

| Stock ID | Applicable for sheath diameter [mm] | Clamping ring material | Screw thread |
|----------|-------------------------------------|------------------------|--------------|
| 8531010 | 1.0 | PTFE | M8 x 1 |
| 8531015 | 1.5 | PTFE | M8 x 1 |
| 8531020 | 2.0 | PTFE | M8 x 1 |
| 8531030 | 3.0 | PTFE | M8 x 1 |
| 8531045 | 4.5 | PTFE | G 1/4 inch |
| 8531060 | 6.0 | PTFE | G 1/4 inch |
| 8532010 | 1.0 | Stainless steel | M8 x 1 |
| 8532015 | 1.5 | Stainless steel | M8 x 1 |
| 8532020 | 2.0 | Stainless steel | M8 x 1 |
| 8532030 | 3.0 | Stainless steel | M8 x 1 |
| 8532045 | 4.5 | Stainless steel | G 1/4 inch |
| 8532060 | 6.0 | Stainless steel | G 1/4 inch |



Male and female connectors (single part)

Available on request:

- Standard/Mini connectors for single or duplex thermocouples (J, K), 200 °C / 390 °F
- High temperature male/female connectors, 350 °C / 660 °F
- Ceramic male/female connectors, 425 °C / 795 °F
- Standard/Mini connectors for RTDs (2, 3, 4-wire-circuit), 200 °C / 390 °F
- LEMO according to customer request



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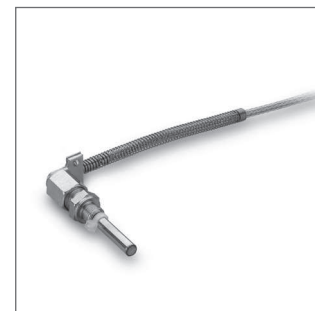
Thermocouples – RTDs

Angle RTD

PWF 1

Technical key features

| | |
|--------------------------|---|
| Temperature range | 0 to 350 °C / 32 to 660 °F |
| Sensor structure | Ermeto-fitting M10x1, rectangular exit, bend protection spring, immersion depth 10 to 35 mm / 0.39 to 1.38 inch |
| Sensor type | Pt 100 with 2-wire-circuit |
| Lead structure | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | at bottom |
| Classification tolerance | Class B |



Stock range

Lead length 2000 mm

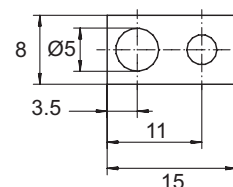
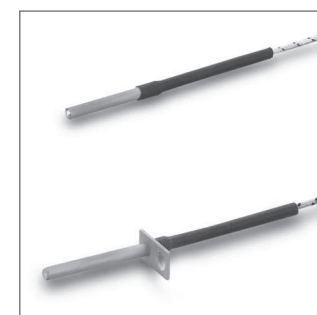
| Stock ID | type | standard | dimension [mm] | leads |
|----------|--------|--------------|----------------|-----------|
| 8700203 | Pt 100 | DIN EN 60751 | Ø 6,0 x 60 | red/white |

Insert Surface Thermocouple Insert Surface RTD

TEF 2
PWF 2

Technical key features

| | TEF 2 | PWF 2 |
|----------------------------------|-----------------------------------|---|
| Temperature range | 0 to 400 °C / 32 to 750 °F | 0 to 400 °C / 32 to 750 °F |
| Diameter | 3, 3.5, 4, 5, 6 mm | 3, 3.5, 4, 5, 6 mm |
| Length | max. 500 mm | max. 500 mm |
| Sensor type | type J, K, L | Pt 100 with 2-, 3- or 4-wire-circuit* |
| Lead options | GLS/GLS, GLS/GLS/MB*, PFA/PFA | GLS/GLS, GLS/GLS/MB*, PFA/PFA, silicone/silicone* |
| Lead cross-section | 0.22 mm ² | 0.22 mm ² |
| Measuring point | at bottom, grounded or ungrounded | at bottom |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) | Class A or B, B is standard |
| Material also available in ANSI. | | * Depending on diameter of the tube. |



Stock range

Lead length 2000 mm, GLS/GLS, with GLS sleeving, TEF: Measuring point grounded, PWF: 2-wire-circuit

| Stock ID | Type | Standard | Dimension [mm] | Leads | Mounting plate |
|----------|-----------|--------------|----------------|-------------|----------------|
| 8600200 | L Fe-CuNi | DIN 43710 | Ø 3.5 x 30 | red/blue | |
| 8600210 | J Fe-CuNi | IEC 60584 | Ø 3.5 x 30 | black/white | |
| 8600201 | L Fe-CuNi | DIN 43710 | Ø 3.5 x 30 | red/blue | yes |
| 8600211 | J Fe-CuNi | IEC 60584 | Ø 3.5 x 30 | black/white | yes |
| 8600202 | L Fe-CuNi | DIN 43710 | Ø 3.5 x 40 | red/blue | yes |
| 8600212 | J Fe-CuNi | IEC 60584 | Ø 3.5 x 40 | black/white | yes |
| 8600203 | L Fe-CuNi | DIN 43710 | Ø 3.5 x 40 | red/blue | |
| 8600213 | J Fe-CuNi | IEC 60584 | Ø 3.5 x 40 | black/white | |
| 8600204 | K NiCr-Ni | DIN 43710 | Ø 3.5 x 30 | red/green | |
| 8600214 | K NiCr-Ni | IEC 60584 | Ø 3.5 x 30 | green/white | |
| 8600207 | K NiCr-Ni | DIN 43710 | Ø 3.5 x 30 | red/green | yes |
| 8600217 | K NiCr-Ni | IEC 60584 | Ø 3.5 x 30 | green/white | yes |
| 8700200 | Pt 100 | DIN EN 60751 | Ø 3.5 x 30 | red/white | |
| 8700201 | Pt 100 | DIN EN 60751 | Ø 3.5 x 30 | red/white | yes |

Thermocouple with Bayonet Cap
RTD with Bayonet Cap
TEF 4
PWF 4
Technical key features

| | TEF 4 | PWF 4 |
|--------------------------|---|---|
| Temperature range | 0 to 400 °C / 32 to 750 °F | 0 to 400 °C / 32 to 750 °F |
| Sensor structure | bayonet cap Ø i = 14.2 mm, compression spring 200 mm / 7.87 inch immersion depth 25 to 200 mm / 0.98 to 7.87 inch | bayonet cap Ø i = 14.2 mm, compression spring 200 mm / 7.87 inch immersion depth 25 to 200 mm / 0.98 to 7.87 inch |
| Sensor type | type J, K, L | Pt 100 2-, 3- or 4-wire-circuit |
| Lead structure | GLS/GLS/MB | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² | 0.22 mm ² |
| Measuring point | bottom, grounded/ungrounded | bottom |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) | Class A or B, B is standard |

Material also available in ANSI.


Stock range

Lead length 2000 mm, TEF: Measuring point grounded, PWF: 3-wire-circuit

| Stock ID | type | standard | dimension [mm] | leads |
|----------|-----------|--------------|-------------------|---------------|
| 8600400 | L Fe-CuNi | DIN 43710 | Ø 8.0 x 12 118° | red/blue |
| 8600401 | J Fe-CuNi | IEC 60584 | Ø 8.0 x 12 118° | black/white |
| 8700205 | Pt 100 | DIN EN 60751 | Ø 8.0 x 10.5 118° | red/red/white |

Thermocouple with Bayonet Cap
RTD with Bayonet Cap
TEF 16
PWF 16
Technical key features

| | TEF 16 | PWF 16 |
|--------------------------|---|---|
| Temperature range | 0 to 400 °C / 32 to 750 °F | 0 to 400 °C / 32 to 750 °F |
| Sensor structure | bayonet cap Ø i = 12.2 mm, compression spring 200 mm / 7.87 inch immersion depth 25 to 200 mm / 0.98 to 7.87 inch | bayonet cap Ø i = 12.2 mm, compression spring 200 mm / 7.87 inch immersion depth 25 to 200 mm / 0.98 to 7.87 inch |
| Sensor type | type J, K, L | Pt 100 2-, 3- or 4-wire-circuit |
| Lead structure | GLS/GLS/MB | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² | 0.22 m ² |
| Measuring point | bottom, grounded/ungrounded | bottom |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) | Class A or B, B is standard |

Material also available in ANSI.


Stock range

Lead length 2000 mm, TEF: Measuring point grounded, PWF: 2-wire-circuit

| Stock ID | type | standard | dimension [mm] | leads |
|----------|-----------|--------------|-----------------|-------------|
| 8601600 | L Fe-CuNi | DIN 43710 | Ø 8.0 x 12 118° | red/blue |
| 8601601 | J Fe-CuNi | IEC 60584 | Ø 8.0 x 12 118° | black/white |
| 8700209 | Pt 100 | DIN EN 60751 | Ø 8.0 x 12 118° | red/white |
| 8701216 | K NiCr-Ni | DIN 43710 | Ø 8.0 x 12 118° | red/green |
| 8701233 | K NiCr-Ni | IEC 60584 | Ø 8.0 x 12 118° | green/white |

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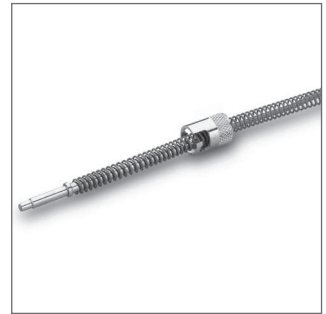
Thermocouples – RTDs

Thermocouple with Bayonet Cap RTD with Bayonet Cap

TEF 20
PWF 20

Technical key features

| | TEF 20 | PWF 20 |
|----------------------------------|--|--|
| Temperature range | 0 to 400 °C / 32 to 750 °F | 0 to 400 °C / 32 to 750 °F |
| Sensor structure | bayonet cap Ø i = 12.2 mm, comp. spring 200 mm / 7.87 inch immersion depth 25 to 200 mm / 0.98 to 7.87 inch | bayonet cap Ø i = 12.2 mm, comp. spring 200 mm / 7.87 inch immersion depth 25 to 200 mm / 0.98 to 7.87 inch |
| Sensor type | type J, K, L | Pt 100 2-, 3- or 4-wire-circuit |
| Lead structure | GLS/GLS/MB | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² | 0.22 mm ² |
| Measuring point | bottom, grounded/ungrounded | bottom |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) | Class A or B, B is standard |
| Material also available in ANSI. | | |



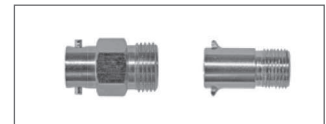
Stock range

Lead length 2000 mm, TEF: Measuring point grounded, PWF: 2-wire-circuit

| Stock ID | type | standard | Sensor cylinder | | leads |
|----------|-----------|--------------|-----------------|----------------|-------------|
| | | | upper part | lower part | |
| 8602000 | L Fe-CuNi | DIN 43710 | Ø 5.0 x 19 mm | Ø 4.0 x 6.0 mm | red/blue |
| 8602001 | J Fe-CuNi | IEC 60584 | Ø 5.0 x 19 mm | Ø 4.0 x 6.0 mm | black/white |
| 8700207 | Pt 100 | DIN EN 60751 | Ø 5.0 x 19 mm | Ø 4.0 x 6.0 mm | red/white |

Screw-in Adaptors

for Thermocouples and RTDs with Bayonet Cap



Stock range

| Stock ID | TEF 4 | | PWF 4 | | TEF 16 | | PWF 16 | | TEF 20 | | PWF 20 | | Screw Thread | Thread Length | Bayonet Cap | Total Length | Outside Hexagon |
|----------|-------|---|-------|----|--------|----|--------|----|------------|-------|--------|-------|--------------|---------------|-------------|--------------|-----------------|
| | 4 | 4 | 16 | 16 | 20 | 20 | 20 | 20 | | | | | | | | | |
| 8700400 | x | x | | | | | | | R 3/8 inch | 10 mm | 14 mm | 30 mm | x | | | | |
| 8700401 | x | x | | | | | | | R 1/4 inch | 10 mm | 14 mm | 30 mm | x | | | | |
| 8700402 | x | x | | | | | | | M14 x 1,5 | 10 mm | 14 mm | 30 mm | x | | | | |
| 8700410 | x | x | | | | | | | M12 x 1 | 8 mm | 14 mm | 40 mm | | | | | |
| 8700404 | | | x | x | x | x | | | M12 x 1 | 10 mm | 12 mm | 25 mm | | | | | |
| 8700408 | | | x | x | x | x | | | M12 x 1 | 10 mm | 12 mm | 40 mm | | | | | |
| 8700411 | | | x | x | x | x | | | M12 x 1 | 10 mm | 12 mm | 60 mm | | | | | |

Angle Thermocouple

TEF 12

Technical key features

| | |
|--------------------------|---|
| Temperature range | 0 to 400 °C / 32 to 750 °F |
| Sensor structure | semicircular probe with screw-in fitting M8 x 1, bend protection spring immersion depth 10 to 15 mm / 0.39 to 0.59 inch |
| Sensor type | type J, K, L |
| Lead structure | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | at bottom, grounded or ungrounded |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) |

Material also available in ANSI.


Stock range

Lead length 2000 mm, Measuring point grounded

| Stock ID | type | | standard | dimension [mm] | leads |
|----------|------|---------|-----------|----------------|-------------|
| 8601200 | L | Fe-CuNi | DIN 43710 | Ø 6.0 x 10 | red/blue |
| 8601201 | J | Fe-CuNi | IEC 60584 | Ø 6.0 x 10 | black/white |

Ring Thermocouple

TEF 13

Technical key features

| | |
|--------------------------|--|
| Temperature range | 350 °C / 660 °F |
| Sensor structure | washer Ø 14 mm with bore hole M4, GLS sleeve |
| Sensor type | type J, K, L |
| Lead structure | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | at washer, grounded |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) |

Material also available in ANSI.


Stock range

Lead length 2000 mm, Measuring point grounded, ferrules uninsulated

| Stock ID | type | | standard | dimension [mm] | leads |
|----------|------|---------|-----------|----------------|-------------|
| 8601300 | L | Fe-CuNi | DIN 43710 | 14 x 10 | red/blue |
| 8601301 | J | Fe-CuNi | IEC 60584 | 14 x 10 | black/white |
| 8701213 | K | NiCr-Ni | DIN 43710 | 14 x 10 | red/green |
| 8701232 | K | NiCr-Ni | IEC 60584 | 14 x 10 | green/white |

Surface Thermocouple

TEF A

Technical key features

| | |
|--------------------------|--|
| Temperature range | 0 to 400 °C / 32 to 750 °F |
| Sensor structure | 15 x 30 x 0.5 mm, bent Ø 100 mm ± 5 mm, bend protection spring |
| Sensor type | type J, L |
| Lead structure | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | at bottom, grounded or ungrounded |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) |

Material also available in ANSI.



Stock range

Lead length 2000 mm, Measuring point grounded

| Stock ID | type | standard | dimension [mm] | leads |
|----------|-----------|-----------|----------------|-------------|
| 8608815 | L Fe-CuNi | DIN 43710 | Ø 6.0 x 40 | red/blue |
| 8608816 | J Fe-CuNi | IEC 60584 | Ø 6.0 x 40 | black/white |

Clamping Band Thermocouple

TEF SP

Technical key features

| | |
|--------------------------|--|
| Temperature range | 0 to 350 °C / 32 to 660 °F |
| Sensor structure | with clamping band, width 9 mm, bend protection spring |
| Sensor type | type J, L |
| Lead structure | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | grounded or ungrounded |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) |

Material also available in ANSI.



Stock range

Lead length 2000 mm, Measuring point grounded

| Stock ID | type | standard | Clamping range [mm] | leads |
|----------|-----------|-----------|---------------------|-------------|
| 8609925 | L Fe-CuNi | DIN 43710 | 25 to 40 | red/blue |
| 8609926 | J Fe-CuNi | IEC 60584 | 25 to 40 | black/white |
| 8609940 | L Fe-CuNi | DIN 43710 | 40 to 60 | red/blue |
| 8609941 | J Fe-CuNi | IEC 60584 | 40 to 60 | black/white |

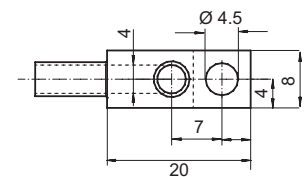
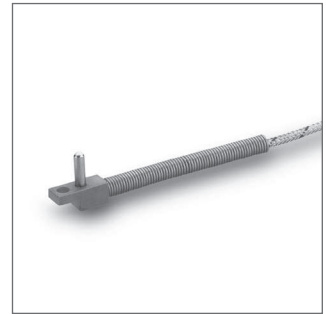
Flange Mounted Thermocouple

TEF 68

Technical key features

| | |
|--------------------------|---|
| Temperature range | 0 to 400 °C / 32 to 750 °F |
| Diameter | 4 mm |
| Length | 12, 20, 35, 80 mm |
| Sensor structure | tip: conical (standard for grounded) and round (standard for ungrounded) are possible, mounting probe 90° to the block 8 x 8 mm, bend protection spring |
| Sensor type | type J, K, L |
| Lead structure | GLS/GLS/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | at bottom, grounded or ungrounded |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) |

Material also available in ANSI.


Stock range

Lead length 2000 mm, Measuring point ungrounded

| Stock ID | type | standard | Sensor dimension [mm] | leads |
|----------|-----------|-----------|-----------------------|-------------|
| 8606800 | L Fe-CuNi | DIN 43710 | Ø 4.0 x 12 | red/blue |
| 8606801 | J Fe-CuNi | IEC 60584 | Ø 4.0 x 12 | black/white |
| 8701223 | K NiCr-Ni | DIN 43710 | Ø 4.0 x 12 | red/green |
| 8701234 | K NiCr-Ni | IEC 60584 | Ø 4.0 x 12 | green/white |

Ring Thermocouple

TEF 30

Technical key features

| | |
|--------------------------|-----------------------------------|
| Temperature range | 0 to 260 °C / 32 to 500 °F |
| Sensor structure | ring |
| Sensor type | type J, K, L |
| Lead structure | PFA/PFA/MB |
| Lead cross-section | 0.22 mm ² |
| Measuring point | at washer, grounded or ungrounded |
| Classification tolerance | Class 2 (DIN), Standard (ANSI) |

Material also available in ANSI.


Stock range

Lead length 1000 mm, Measuring point ungrounded, ferrules uninsulated

| Stock ID | type | standard | dimension [mm] | bore hole | leads |
|----------|-----------|--------------|----------------|-----------|-------------|
| 8603080 | L Fe-CuNi | DIN 43710 | Ø 14.0 x 8.0 | M4 | red/blue |
| 8603081 | J Fe-CuNi | IEC 60584 | Ø 14.0 x 8.0 | M4 | black/white |
| 8603082 | J Fe-CuNi | ANSI MC 96.1 | Ø 14.0 x 8.0 | M4 | white/red |

Notes

