

NiCr-Ni thermowire T 190-0



Accuracy: NiCr-Ni class 2*
Insulation: Glass fiber (wires and sheath)
Operating temp.: -25 °C to +350 °C (short time up to 400 °C)
Wire diameter: 0.5 mm
External diameter: approx. 1.3 x 2.1 mm

NiCr-Ni thermowire per meter
with glass fiber covering **Order no. LT01900**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA3900**
ALMEMO® connector 5 m long **Order no. FTA3900L05**

NiCr-Ni thermowire T 190-1



Accuracy: NiCr-Ni class 2*
Insulation: Glass fiber (wires and sheath)
Operating temp.: -25 °C to +350 °C (short time up to 400 °C)
Wire diameter: 0.2 mm
External diameter: approx. 0.6 x 1.0 mm

NiCr-Ni thermowire per meter
with glass fiber covering **Order no. LT01901**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA3901**
ALMEMO® connector 5 m long **Order no. FTA3901L05**

NiCr-Ni thermowire T 190-2



Accuracy: NiCr-Ni class 2*
Insulation: PVC (wires and sheath)
Operating temp.: -10 °C to +105 °C
Wire diameter: 0.5 mm
External diameter: approx. 2.2 x 3.4 mm

NiCr-Ni thermowire per meter
with PVC insulation **Order no. LT01902**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA3902**
ALMEMO® connector 5 m long **Order no. FTA3902L05**

NiCr-Ni thermowire T 190-3



Accuracy: NiCr-Ni class 2*
Insulation: Silicone (wires and sheath)
Operating temp.: -45 °C to +200 °C
Wire diameter: 0.5 mm
External diameter: approx. 4 mm

NiCr-Ni thermowire per meter
with silicone insulation **Order no. LT01903**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA3903**
ALMEMO® connector 5 m long **Order no. FTA3903L05**

* Range of validity see beginning of chapter

DAkkS accredited calibration or factory calibration KT90xx temperature for sensor or measuring chain (sensor + device), see chapter „Calibration certificates“. DAkkS accredited calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

Temperature

NiCr-Ni thermowire T 190-10



Accuracy: NiCr-Ni class 2*
Insulation: FEP (Wires and sheath)
Operating temp.: -200 °C to +205 °C
Wire diameter: 0.5 mm
External diameter: approx. 1.5 x 2.5 mm

NiCr-Ni thermowire per meter
with FEP insulation **Order no. LT019010**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA39010**
ALMEMO® connector 5 m long **Order no. FTA39010L05**

NiCr-Ni thermowire T 190-11



Accuracy: NiCr-Ni class 2*
Insulation: FEP (Wires and sheath)
Operating temp.: -200 °C to +205 °C
Wire diameter: 0.2 mm
External diameter: approx. 1.3 x 2.0 mm

NiCr-Ni thermowire per meter
with FEP insulation **Order no. LT019011**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA39011**
ALMEMO® connector 5 m long **Order no. FTA39011L05**

NiCr-Ni thermowire T 190-7



Accuracy: NiCr-Ni class 2*
Insulation: Ceramic fiber (Wires and sheath)
Operating temp.: -40 °C to +1200 °C
Wire diameter: 0.8 mm
External diameter: approx. 3 x 4 mm

NiCr-Ni thermowire per meter
with ceramic fiber insulation **Order no. LT01907**
NiCr-Ni thermowire sensor, welded tip, with
ALMEMO® connector 1.5 m long **Order no. FTA3907**
ALMEMO® connector 5 m long **Order no. FTA3907L05**

Only for dry, non-aggressive environments!

NiCr-Ni compensation line T 191-1



Compensation line: NiCr-Ni
Insulation: PVC (Wires and sheath)
Operating temp.: -10 °C to +105 °C
Wire diameter: 0.5 mm
External diameter: approx. 3.6 mm

NiCr-Ni bunched conductor with PVC insulation,
for each meter **Order no. LT01911**

Other types are available on request.

LT01912 Insulation Silicone/silicone/glass filament, up to 200 °C
LT01913 Insulation PVC / screening film / PVC, up to 105 °C

NiCr-Ni thermal line (stranded wire) T 191-6



Thermal line (stranded wire): NiCr-Ni*
Insulation: Wires: FEP, sheath: silicone
Operating temp.: -50...+200 °C
Wire diameter: 0.7 mm
External diameter: approx. 3.8 mm

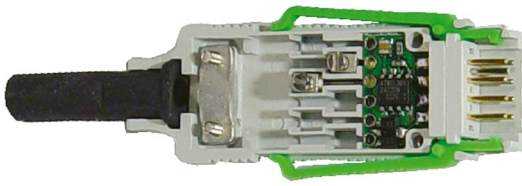
NiCr-Ni thermal line (stranded wire) with FEP / silicone
insulation, per meter **Order no. LT01916**

* Range of validity see beginning of chapter

** There is no adverse temperature effect at the juncture from measuring element to cable. See beginning of chapter

DAkkS accredited calibration or factory calibration KT90xx temperature for sensor or measuring chain (sensor + device), see chapter „Calibration certificates“. DAkkS accredited calibration meets all the requirements regarding test resources laid down in DIN EN ISO/IEC 17025.

ALMEMO® connector for thermocouples (see Chapter ALMEMO® Input connectors)



For Types K, N, L, J, T

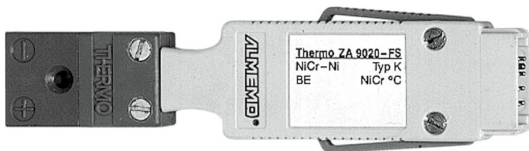
(no thermo-electric transition / with thermal material)

NiCr-Ni (K)	Order no. ZA9020FS
NiCrSi-NiSi (N)	Order no. ZA9021FSN
Fe-CuNi (J)	Order no. ZA9021FSJ
Cu-CuNi (T)	Order no. ZA9021FST

For Types U, S, R, B, AuFe-Cr

Cu-CuNi (U)	Order no. ZA9000FSU
PtRh10-Pt (S)	Order no. ZA9000FSS
PtRh13-Pt (R)	Order no. ZA9000FSR
PtRh30-PtRh6 (B)	Order no. ZA9000FSB
AuFe-Cr (A)	Order no. ZA9000FSA

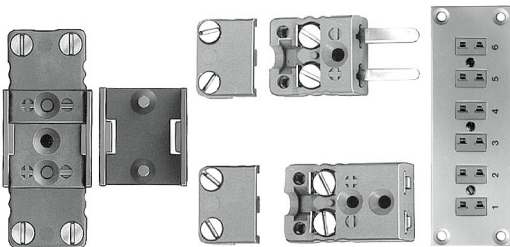
ALMEMO® adapter plug with miniature flat socket



For Types K, J, T, S

NiCr-Ni (K)	Order no. ZKA029RA
NiCrSi-NiSi (N)	Order no. ZNA029RA
Fe-CuNi (J)	Order no. ZJA029RA
Cu-CuNi (T)	Order no. ZTA029RA
PtRh-Pt (S)	Order no. ZSA029RA

Miniature flat connectors for thermocouples types K, J, T, S, E



Examples for NiCr-Ni (K):

NiCr-Ni flat socket	Order no. ZK9029FB
NiCr-Ni flat connector	Order no. ZK9029FS
Locking plate (10 pieces)	Order no. ZB9029VP
NiCr-Ni single built-in socket	Order no. ZK9029FE
1-row panel with NiCr-Ni socket	Order no. ZK9029FB1
6-row panel with NiCr-Ni socket	Order no. ZK9029FB6

- Connectors with thermo contacts for avoiding voltage corruption at thermocouple junctions.
- For ambient temperatures -183 to $+200$ °C.
- Locking plate for complete coupling.

Order numbers for the above examples are compiled from the following coding elements: Z①9029F②③.

The coding elements can be taken from the table below.

Ordering:

Type ①	Color (IEC 584)	Variant ②	Panel ③	Panel dimensions
NiCr-Ni (K)	green	Male connector = S	1 unit (1 row)	38 x 38 x 2.5 mm
NiCrSi-NiSi (N)	pink	Female connector = B	6 units (1 row)	113 x 38 x 2.5 mm
Fe-CuNi (J)	black		12 units (1 row)	203 x 38 x 2.5 mm
Cu-CuNi (T)	brown		24 units (2 rows)	203 x 76 x 2.5 mm
NiCr-CuNi (E)	lilac			mounting depth: 25.4 mm
PtRh-Pt (S)	orange			