



## Pt/Pd Precision Thermocouple

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Platinum / Palladium thermocouples (Pt/Pd) are the most precise thermocouples manufactured in the eXacal factory.

- ✓ **Temperature range: 0°C to 1500 °C**
- ✓ **stress-compensating design**  
The design of the measuring point allows stress-free expansion of the thermo wires.
- ✓ **excellent inhomogeneity**  
The high purity of 99.99% and the thermal pre-treatment of the thermocouple wires ensure excellent inhomogeneity.
- ✓ **small measurement uncertainty and low drift**  
The achievable measurement uncertainties are better by a factor of 2 than with type R/S thermocouples.

## Description

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Pt/Pd thermocouples can be used in the temperature range from 0°C to 1500°C with very small measurement uncertainties. **A special feature of this thermocouple is a junction of the thermocouple wires without mechanical tension.** This special design ensures stress-free expansion of the platinum and palladium thermocouple wires. The different thermal expansion coefficients of the two thermocouple wires are thus compensated without mechanical tensions changing the Seebeck coefficient.

## Technical data

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<b>Model No.</b>	<b>KK-150</b>
Temperature range	0°C to 1500°C
Connection	temperature resistant – Thermoelectric cable with very low EMF copper
Thermowire	<ul style="list-style-type: none"><li>• Platinum / Palladium (Pt/Pd)</li><li>• 99,99 % purity</li><li>• maximum purity available</li><li>• thermally pre-treated and annealed</li></ul>
Sheath	made of gas-tight high-purity ceramic stress-free expansion of the thermo wires possible
Handle	maximum continuous temperature 100°C
Function	IEC 62460
<b>Uncertainties of measurement (with DAkkS calibration)</b>	
Fixed point calibration	
0,01°C	0,2K
419,527 °C	0,5K
660,323 °C	0,2K
961,78°C	0,2K
Comparison calibration	
0°C to 962°C	0,4K
>962 °C to 1200°C	1,5K
<b>Dimensions</b>	
Protection Sheath	Ø7mm x depending on configuration
Handle	Ø20mm x 95mm
Length of thermocouple wire	depending on configuration
cold junction	Ø6mm x 280mm (stainless steel) with two meter connection cable made of very low EMF copper
Length of connection cable	very low EMF copper (depending on configuration)
Carrying case	Exclusive wooden case (optional)

Further information:  
**[www.exacal.de](http://www.exacal.de)**

