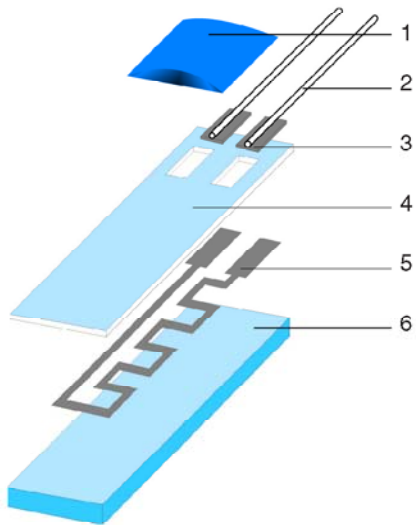


Selection

Thin-film temperature sensors are particularly suited for applications where large numbers are used and where the price/performance ratio plays a crucial role, for example in the automotive industry. Due to the standardised characteristic curve, platinum temperature sensors are characterised by complete interchangeability in a positive temperature coefficient, in connection with high precision and long-term stability over a wide temperature range.

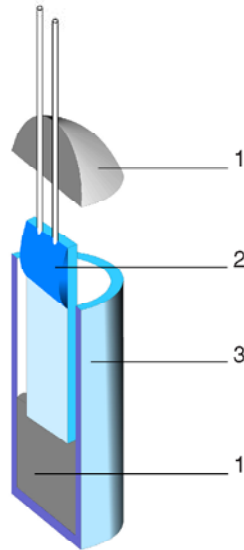
Heraeus Sensor-Nite works closely with its customers. Products are often specially developed to meet customers' special requirements. A wide range of nominal resistances, temperature coefficients, substrate materials and thicknesses, dimensions, supply lead materials and lengths as well as lead-free versions is available. Solutions for temperature measurements up to 1000°C are possible.



1. Connection sealing with glass ceramic paste
2. Connection wires
3. Connection pads
4. Cover with glass layer
5. Photolithographically structured platinum thin-film layer
6. Al₂O₃ substrate

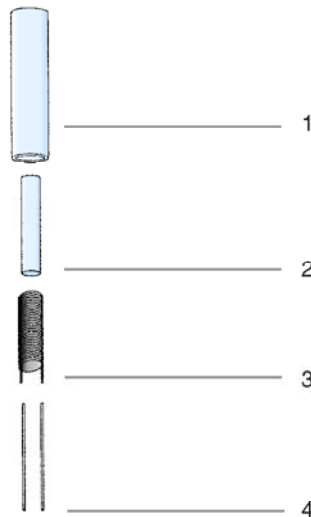
Figure 3: Design of the FK series

Already cast in a ceramic casing, the FR type is suitable for direct installation in thermometers.



- 1 Ceramic sealing
- 2 Thin-film platinum temperature sensors
- 3 Ceramic casing

Figure 4: Design of the FR type

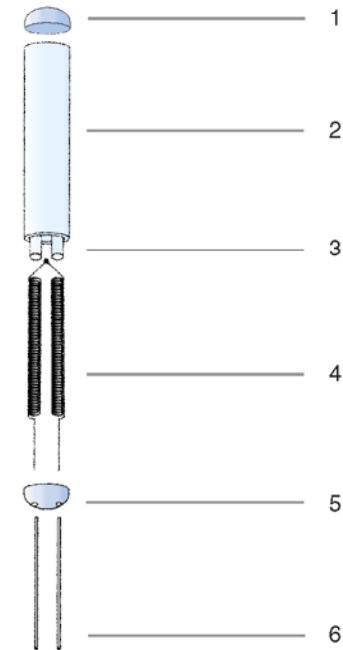


- 1 External glass casing
- 2 Glass core
- 3 Platinum coils
- 4 Connection wires

Figure 5: Design of a glass wire-wound platinum sensor

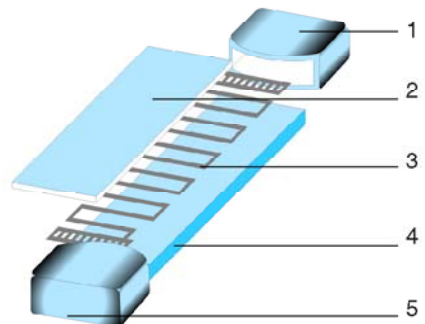
The SMD, SOT223 and TO92 ranges are intended for automatic further processing in an application temperature range of -50°C to +150°C. Applications include compensation of temperature-

sensitive electronics on PCBs and direct measurement in media.



- 1 Cover
- 2 Two-slot capillary
- 3 Compensating node
- 4 Platinum coils
- 5 Strain relief
- 6 Connection wires

Figure 6: Design of a ceramic wire-wound platinum sensor



1. Edge metallising
2. Cover with glass layer
3. Photolithographically structured platinum thin film layer
4. Al₂O₃ substrate

Figure 7: Design of the SMD-type

Heraeus Sensor-Nite