

**Digital precision resistance sensor Pt100 up to 400 °C with resolution of 0.001 K as reference sensor, with ALMEMO® D7 connector for ALMEMO® V7 measuring devices / data logger**



Digital precision resistance sensor Pt100 FPD723L0250A3D  
For immersion measurements in air, gases and liquids

## Technical data and functions

Digital precision resistance sensor with highest accuracy and linearity for temperature measurements in a wide temperature range.

Highest resolution 0.001 K over the entire measuring range.

Application as reference probe for comparison measurements in research, development, quality assurance and production processes.

For all ALMEMO® V7 measuring instruments/data loggers, including ALMEMO® 710, 809, 500.

The digital ALMEMO® D7 measuring plug operates with its own built-in AD converter. The linearization of the Pt100 characteristic is calculated according to DIN IEC 751 (no approximation method).

The overall accuracy of the measurement is independent of the ALMEMO® V7 display unit/data logger. The complete measuring chain, consisting of the Pt100 - sensor and the connected ALMEMO® D7 measuring plug, can be calibrated.

Highest accuracy is achieved during calibration by a multi-point adjustment of the temperature sensor.

The digital sensor is supplied with a DAkkS calibration certificate incl. multi-point adjustment.

## Technical data

<b>Measuring element:</b>	Pt100 wire wound	<b>AD converter:</b>	Delta-Sigma
Class:	1/10 B (DIN EN 60751) at 0°C	<b>Conversion time</b>	3.4 seconds
<b>Measuring tip:</b>	Application range: -50°C...+400°C	<b>Measuring current:</b>	approx. 1 mA
<b>response time T90:</b>	5 s	<b>Linearization:</b>	Calculation method (no approximation method)
<b>Nominal length:</b>	250 mm	<b>Accuracy:</b>	± 0.015K ± 2 digits
<b>Sensor tube:</b>	stainless steel, diameter 3 mm	<b>Nominal temperature:</b>	22°C ± 2 K
<b>Connection cable:</b>	2 m FEP/silicone	<b>Temperature drift:</b>	0.003 %/K (30ppm)
<b>ALMEMO® D7 measuring connector</b>		<b>Supply voltage:</b>	starting at 6 V from ALMEMO® device
<b>Measuring range:</b>	see sensor range	<b>Current consumption:</b>	approx. 9 mA
<b>Resolution:</b>	0.001 K		

## Accessory

	<b>Order no.</b>
Aluminum profile case for 1 probe (up to 500 mm length)	<b>ZB9000TK1</b>

## Standard delivery

Digital precision resistance sensor Pt100 as reference sensor, with cable and ALMEMO® D7 connector.  
Incl. DAkkS calibration certificate (2 temperature points at 0°C and 100°C incl. multi-point adjustment).

**Order no.**  
**FPD723L0250A3D**

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