
Technical Data Sheet

OT60/150 Sensor



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Universal USB temperature sensor in miniature design

The OT60/150 sensor measures the temperature with up to 0.1°C accuracy. It is intended to operate directly at the USB port of a PC. The OT60/150 is available in two different versions of temperature range and accuracy. The included data acquisition software complements the OT60/150 into a flexible and precise measuring system with functions for monitoring and logging (subject to technical changes).

FEATURES

- Robust stainless steel housing
- Miniaturized Sensor
- Calibrated digital sensor
- High precision and high speed
- Data logging software
- USB 2.0 CDC interface
- Integration by Embedded DLL or direct query
- Accessible in LabView
- Power supply by USB*
- DAkkS calibration certificate for an extra charge on request

** If many sensors are connected simultaneously, a Power HUB with its own power supply may be required.*

APPLICATIONS

- Climate Chamber & Air Conditioning
- Air- & Drying systems
- Industry & Engineering
- Laboratory & R&D
- Environmental engineering
- Weather stations
- Server Room Monitoring
- ISO 9000 Certifications
- Greenhouses

TECHNICAL DATA

TEMPERATURE MEASUREMENT

Parameter		OT60-A	OT60-B	OT150-A	OT150-B
Specified Range	Max	-10...+60°C	-10...+60°C	-50...+150°C	-50...+150°C
Accuracy	Typ	±0.1°C	±0.8°C	±0.2°C	±1.0°C
Resolution	Max	0.01°C			
Repeatability	Max	±0.1°C			
Response time	Typ	75 ms			

POWER SUPPLY

Parameter		OT60-A	OT60-B	OT150-A	OT150-B
Supply voltage (supplied by USB)	Typ	5 V (by USB)			
Supply current	Typ	20 mA			

PRESSURE

Parameter		OT60-A	OT60-B	OT150-A	OT150-B
Permissible over pressure	Max	8 bar			

OUTPUTS

Parameter		OT60-A	OT60-B	OT150-A	OT150-B
USB		USB 2.0 CDC for PCs with Windows operating system Win7, Win8, Win10			

CABLE CONNECTION*

Parameter	OT60-A	OT60-B	OT150-A	OT150-B
Cable Type	MIK-C (black)		Silicon (red)	
Temperature Range	-30°C...+80°C		stationary: -60°C...+180°C moving: -50°C...+180°C short term ...+210°C	
Protection Class	IP40			
Length (configurable)	Standard 2 m (configurable)			

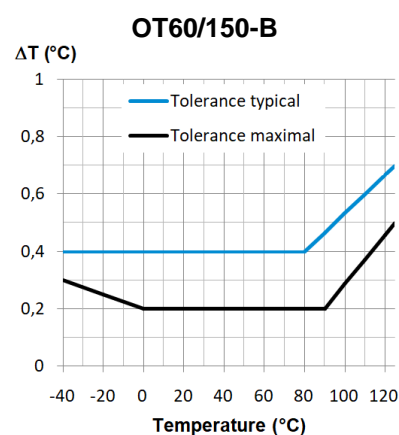
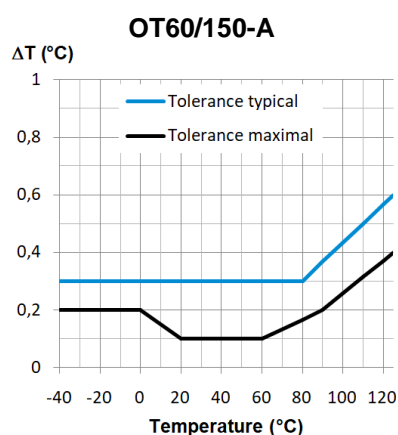
* Other versions are available for temperatures outside the specified measuring range on request.

OT60/150 Sensor

DIMENSIONS

Parameter	OT60-A	OT60-B	OT150-A	OT150-B
Length	50 mm			
Diameter	6 mm			
Housing	Stainless steel			
Total Weight	60 g		56 g	

ACCURACY TEMPERATURE



STORAGE AND ASSEMBLY

The sensor can be stored under the same conditions as during operation. If the sensor has been stored for a long time in hot environments or exposed to aggressive substances, accelerated aging or damage to the sensor element is possible, which has a negative impact on the measurement result.

During installation, it must be ensured that the sensor element is installed in slowly flowing air. Hot spots (e.g. on machines) can strongly influence the measurement result.

To connect to a PC simply insert the plug into a USB port on the PC. If there are not enough USB ports available, or if several sensor devices are to be connected, expand the USB port using one or more USB HUB.

SAFETY NOTE

The OT60 and OT150 must not be used in applications where persons may be endangered or injured. It must also not be used as an emergency stop switch on systems and machines or in other safety-relevant areas!

OPTIONAL WITH DAKKS CALIBRATION CERTIFICATE

EU DECLARATION OF CONFORMITY

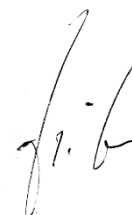
In the sense of the EMC directive 2014/30/EU

We, the **Omni Elektronik GmbH, Druckerweg 13, 51789 Lindlar, Germany**, herewith declare following products comply with the following European directives and standards.

Products, Variants	OT60-A OT60-B OT150-A OT150-B Temperature sensor with USB connection	
EU Directives	EMV 2014/30/EU RoHS 2011/65/EU	
Representative for the compilation of technical documents	Thomas Breitbach (address as per above)	
Applied Standards	DIN EN 61000-6-1	Generic standard - Immunity standard for residential, commercial and light-industrial environments
	DIN EN 61000-6-3	Generic standard - Emission standard for equipment in residential environments
	DIN EN 55032:2022-08	Electromagnetic compatibility of multimedia equipment - Emission requirements
	DIN EN 55035:2018-04 DIN EN 55035/A11:2022-06	Electromagnetic compatibility of multimedia equipment - Immunity requirements

Lindlar, 20.03.2024

Thomas Breitbach
Managing director


Signature