

os4300 | Non-Metallic Temperature Sensor

Part # os43aa-wwww-1xx-1yy-z
 Serial #
 Nominal Wavelength, λ_0 (nm) @22°C 0000.0
 Certified by: _____

Variable	Description	Value	Units
λ	Wavelength	Interrogated	nm
λ_{os}	Wavelength Offset	 	nm
C ₃	Calibration Coeff. 3	 	-
C ₂	Calibration Coeff. 2	 	-
C ₁	Calibration Coeff. 1	 	-
C ₀	Calibration Coeff. 0	 	-
S _T	Temp. Sensitivity	~10 (@22°C)	pm/°C

Calibration Method (Standard or Premium) Standard
 Calibrated Temperature Range (T, °C) -40 to 120°C

Temperature (T, °C):

$$T = C_3(\lambda + \lambda_{os})^3 + C_2(\lambda + \lambda_{os})^2 + C_1(\lambda + \lambda_{os}) + C_0$$

Temperature Calibration

The os4300 series temperature sensors provide absolute temperature measurements over the calibrated range. The premium calibration method provides optimal accuracy performance.

For additional information about temperature sensors and calibration methods, see:

http://www.micronoptics.com/support_downloads/Sensors/



Products displaying the “Micron Optics Tuned” logo include Micron Optics tunable technologies thus ensuring high quality and performance. Certified sensors have been tested and qualified for use with Micron Optics Sensing Instruments.

Qualification Statement



This sensor has been manufactured using procedures and materials documented under Micron Optics, Inc’s ISO 9001:2000 qualification process. This Sensor Information Sheet is verification of conformance.

Patent Certification



Micron Optics sensors and sensor interrogation instruments are covered under a US and International Patent Licensing Agreement between Micron Optics, Inc. and United Technologies Corporation. This license transfers to the users of Micron Optics sensor products and ensures that Micron Optics products are authorized for use in sensing applications. Certificates are available upon request.

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Installation Information

The os4300 temperature sensor may be used in a variety of applications. While a sealed sensor, it is not designed to be submerged. Single ended sensors should not exceed 250°C while double ended sensors should not exceed 150°C. Cables should be secured to prevent any sharp bends or pulling on the sensor. Sensors may be mounted as follows:

- os4310 – Tape sensor to surface. Sensor may also be bonded to surface by bonding strain reliefs using an RTV type adhesive. Thermal paste may be used to assist in conducting heat.
- os4330 – Bond flat surface of sensor to substrate using an epoxy or other thermally conductive adhesive. Sensor may also be clamped mechanically.
- os4350 – Sensor can be mounted by using #6 pan head self tapping screws or equivalent to attach to the substrate. Epoxy or other suitable adhesive is also acceptable.

For additional information about the os4300 series temperature probe, see:

http://www.micronoptics.com/support_downloads/Sensors/

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