OPTOSKY Spectroscopy Solutions

Datasheet

Low-Temp Blackbody ATG8210

Features

- Temperature range: -25℃ ~ 100℃
- Temperature resolution: 0.001℃
- Area source uniformity: ±0.015℃
- Temperature stability: ±0.010℃
- Effective emissivity: 0.98±0.02
- Professional temperature control and calibration software
- A variety of surface source aperture sizes are available
- Multiple communication methods: RS485, Ethernet, Wi-Fi

Application

- Radiation thermometer calibration
- Infrared thermal imaging camera calibration
- Calibrate the radiation intensity of the infrared radiation source
- Calibrated response rate for radiation absorption
- Study the thermal radiation properties of material surfaces
- Measure material surface emissivity
- Optical performance measurements

Description

ATG8210 provides a reliable set of refrigerated low-temp surface source blackbody radiation sources for scientific research and industry.

The ATG8210 low-temperature surface source blackbody temperature can be as low as -25℃, the temperature resolution reaches 0.001℃, and the surface source uniformity reaches ±0.010℃. ATG8210 temperature stability is ±0.010℃. It has the characteristics of high resolution, high stability and high uniformity.

The radiation source diameter of ATG8210 can reach up to 12 inches*12 inches, and its large-area design can provide strong support for domestic scientific research projects.

The ATG8210 low-temperature surface source blackbody temperature can communicate through RS485, Ethernet, and Wi-Fi. When used with the Optosky blackbody controller, it can achieve high-precision temperature control.

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1. Parameter

Model	ATG8210
Radiator type	extended source
Radiator diameter (inches)	4” x 4”, 7” x 7”, 8” x 8”, 12” x 12”
Absolute temperature range	0 to 100℃
Temperature Range	-25 to 100℃
Emissivity	0.98 ± 0.02
Standard calibration method	Front temperature sensor/standard transmission radiometer
Built-in temperature sensor	Pt100 four-wire system
Temperature resolution	0.001℃
temperature setting	0.01° C
Absolute temperature control mode temperature accuracy	±0.015° C
Temperature accuracy of temperature difference temperature control mode	±0.015℃
temperature stability	±0.010° C
Ta-Tmax	<20min
Area source uniformity	±0.015 x T (80% center area)
way of communication	RS485, Ethernet, WIFI
Black temperature control and calibration software	BMC-30
Dimensions	
Weight	3kg
Voltage	220VAC
Power	
range of working temperature	0 to 50° C

Model	Radiator diameter (inches)
ATG8210-S4	4” x 4”
ATG8210-S7	7” x 7”
ATG8210-S8	8” x 8”
ATG8210-S12	12” x 12”

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