

Medium-Temp Blackbody

ATG8200

Features

- Temperature range: $T_a+5^{\circ}\text{C} \sim 450^{\circ}\text{C}/600^{\circ}\text{C}$
- Temperature resolution: 0.01°C
- Blackbody emissivity: 0.97 ± 0.03
- High temperature stability
- High precision accuracy
- Good surface source uniformity
- A variety of surface source aperture sizes are optional
- Professional temperature control and planning software
- 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
- Optical performance measurements

Description

ATG8200 provides a reliable set of refrigerated low-temp surface source blackbody radiation sources for scientific research and industry.

The maximum temperature of the ATG8200 medium-temperature area source blackbody can reach 600°C (450°C optional), the temperature resolution is as high as 0.01°C , and the area source uniformity reaches $0.004\times T$ (ATG8200-T450), $0.006\times T$. It has the characteristics of high resolution, high stability and high uniformity.

The radiation source diameter of ATG8200 can reach up to 12 inches*12 inches, and its large-area design can provide strong support for domestic scientific research projects.

The ATG8200 medium-temperature surface source blackbody temperature can be communicated through RS485, Ethernet, and Wi-Fi. When used with the Optosky blackbody controller, high-precision temperature control can be achieved.



1. Parameter

Model	ATG8200	
Radiator type	extended source	
Radiator caliber	1" x 1" ; 4" x 4" ; 8" x 8" ; 12" x 12"	4" x 4" , 8" x 8" , 12" x 12"
temperature range	Ta+5°C ~450°C	Ta+5°C ~600°C
effective emissivity	0.97 ± 0.03	
Standard calibration method	Front temperature sensor/standard transmission radiometer	
Built-in temperature sensor	Pt100 four-wire system	
Temperature resolution	0.01°C	
temperature setting	0.01° C	
Temperature accuracy	0.1° C	0.5° C
temperature stability	±0.03°C	±0.25° C
Ta-Tmax	<20min	<60min
Area source uniformity	0.004 x T (Non-uniformity defines 80% central area)	0.006 x T (Non-uniformity defines 80% central area)
way of communication	RS485、Ethernet、WIFI	
Temperature control and calibration software	BMC-30	
Operating Voltage	220VAC	
Maximum power		
range of working temperature	0 to 50 ° C	

Model	Temperature Range	Radiator diameter (inches)
ATG8200-S1-T450	Ta+5°C ~450°C	1" x 1"
ATG8200-S4-T450		4" x 4"
ATG8200-S8-T450		8" x 8"
ATG8200-S12-T450		12" x 12"
ATG8200-S4-T600	Ta+5°C ~600°C	4" x 4"
ATG8200-S8-T600		8" x 8"
ATG8200-S12-T600		12" x 12"