

BlackBody CS500

Infrared calibration source/black body

Overview



Description

The infrared radiation source Blackbody CS 500 is used for calibration and examination of infrared radiation thermometers and infrared cameras in the temperature range from 50 °C to 500 °C.

Its execution as an extended area radiator results in a compact portable device with a large aperture and a total emissivity of approximately 97 percent. A serial interface RS-485 enables the control of the radiator with PC. Digital PID controller and precision platinum resistance thermometer Pt100 provide excellent accuracy and stability.

Technical data

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|--------------------------------|--------------------------|
| Type | BlackBody CS 500 |
| Temperature range ¹ | 50 °C to 500 °C |
| Aperture diameter | 60 mm |
| Emissivity ² | 0.97 ± 0.01 |
| Uncertainty ² | 1 K + 0.0025 · T [°C] |
| Control stability | 0.2 K |
| Heat up time | 30 min |
| Temperature sensor | Pt100 class A |
| Controller | PID |
| Interface | RS-485 |
| Dimensions | 235 mm × 311 mm × 311 mm |
| Weight | appr. 8 kg |
| Power supply | 115/230 V AC, 500 VA |

¹ Specifications for ambient temperature 23 °C. ² At 8 μm to 14 μm wavelength.



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