

# PYROTHERM CS 1500

## Infrared calibration source/black body

### Overview



### Description

The infrared calibration source PYROTHERM CS 1500/CS 1500E is used for the calibration and verification of infrared radiation thermometers and infrared cameras within the temperature range from 300 °C to 1500 °C. The cavity style guarantees a very high emissivity.

The temperature adjustment can be done directly at the black body or via serial interface RS-485 (optional USB adapter) with PC software. Digital PID controller and high-precision temperature sensor provide excellent accuracy and stability.

### Technical data

Type	PYROTHERM CS 1500
Temperature range	300 °C to 1500 °C
Aperture diameter	38 mm
Emissivity	0.99 ± 0.005 <sup>1</sup>
Measurement uncertainty	2 K + 0,0025 · T [°C] <sup>2</sup>
Reproducibility	0.5 K + 0.001 · T [°C]
Control stability	0.3 K
Display resolution	0.1 K
Temperature constancy	0.3 K + 0.001 · T [°C] (for the central area Ø 20 mm, related to the center)
Heat up time	300 °C: 20 min, 1300 °C: 40 min
Cavity features	Material: SiC Variant: Cylinder with hemisphere end Depth: approx. 180 mm
	Inner diameter: 45 mm
Temperature sensor	Type R Pt13Rh
Controller	PID
Interface	RS-485 (optional USB adapter and software)
Dimensions	38 cm × 52 cm/54 cm × 50 cm [W × H × D]
Weight	approx. 37 kg
Power supply	220 to 240 V AC, maximum 3 kW (110 to 120 V AC version on request)

<sup>1</sup> Measured at 1.5 µm to 1.8 µm. <sup>2</sup> For the range 500 °C to 1500 °C.

