



## OBERON R 426

High temperature large Blackbody  
Fixed Point system and source, 450°C  
to 1100°C

The Oberon R 426 uses a Sodium heat pipe to ensure exceptionally low temperature gradient along the furnace core. It is ideal for the realization of Aluminium, Silver or Copper ITS-90 Fixed Points. It may also be used as a Blackbody source of the range 450°C to 1100°C.

## Description

The Oberon R 426 is a Blackbody furnace using a Sodium heat pipe to ensure exceptionally low temperature gradient along the furnace core. It is ideal for the realization of Aluminium, Silver or Copper ITS-90 Fixed Points.

It may also be used as a Blackbody source of the range 450°C to 1100°C.

The furnace heater is of the non-inductive bird-cage design insulated by twin bore alumina tubes. The heat pipe is designed so that the inner wall is not subject to thermal expansion stresses from the outer wall before the heat pipe reaches conduction temperature. The working fluid is permanently and safely sealed within the plasma-arc welded enclosure.

### Key features:

- High temperature Blackbody Fixed Points
- High temperature Blackbody source: 450°C to 1100°C
- Sodium heat pipe
- Emissivity: > 0.995

## Specifications

Temperature range	450°C to 1100°C
Cavity size	50 x 300 mm deep
Stability	$\pm 0.05^{\circ}\text{C}$
Emissivity	$> 0.995$
Heating time	4 h

## General specifications

Size	410 x 415 x 280 mm
Weight	30.5 kg
Display	Resolution: $0.1^{\circ}\text{C}$ at 999.9 and $1^{\circ}\text{C}$ at 1000 / 1100
Power supply	110 V, 50/60 Hz 3000 Watts 230 VAC transformer available in option

## Models and accessories

### Instrument:

Oberon R 426 High temperature large Blackbody Fixed Points and source, 450°C to 1100°C  
Delivered in standard with:

- Cal Notepad software
- Serial communication cable
- User manual
- Traceable certificate

Please specify supply voltage required at the order: 110 V (50/60 Hz) or 230 V (50/60 Hz)

### Large Fixed Point cells:

998-06-00D	Aluminium large Fixed Point cell (660.323°C)
998-06-00E	Silver large Fixed Point cell (961.78°C)
998-06-00G	Copper large Fixed Point cell (1084.62°C)
UKAS	Calibration certificate
NPL	Calibration certificate

### Accessories:

984	Gas flow system for high temperatures (Aluminium, Silver and Copper cells)
935-14-48	Isolation transformer 230 V / 110 V
935-19-43	Isolation transformer 110 V / 110 V

### Packing information:

Size	410 x 415 x 280 mm
Weight without packing	30.5 kg