

## Technical Information

No. FO 5094

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Substitutes: Edition 06/00

Status: valid

Mercury Short Arc Lamp  
for Microlithography

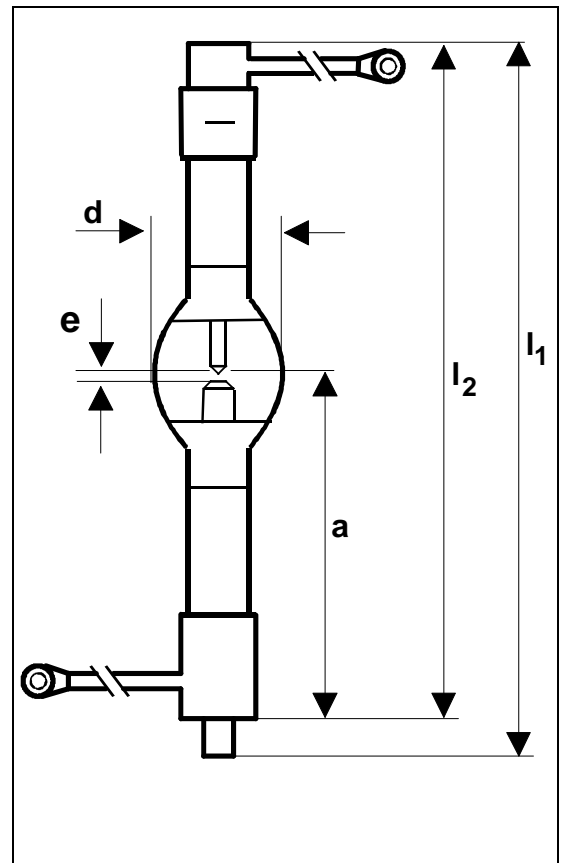
# HBO<sup>®</sup> 1500 W/CIEL

### ■ Product description

The OSRAM HBO<sup>®</sup> 1500 W/CIEL is a super long life direct current mercury short arc i-line lamp designed for the manufacture of integrated circuits (microlithography). This lamp type emits a very high radiant intensity in the ultraviolet and visible wavelength range and is optimized for use in Canon equipment (e.g. FPA 3000 i1, i2, i3). It is also available as long life version HBO<sup>®</sup> 1500 W/CIL with an average 1500h service life.

### ■ Technical data

Order reference	HBO <sup>®</sup>	1500 W/CIEL
Rated lamp wattage	W	1,500
Rated lamp voltage	V	23
Rated lamp current (=)	A	65
Ignition voltage (cold)	kV <sub>s</sub>	max. 20
Radiant intensity (wave length range 365 ± 2,5nm)	mW/sr	4,850
Electrode gap e (cold)	mm	4
Lamp length (overall) l <sub>1</sub>	mm	max.262
Lamp length l <sub>2</sub>	mm	240 / max.242
Bulb diameter d	mm	52
LCL a	mm	122
Guaranteed life	h	2,250



Base

- Cathode: SFa 27-20/22 with cable connection (M8)
- Anode: SFa 27-10/35 with cable connection (M10)

### ■ Lamp operation

Maximum permissible base temperature	°C	200
Cooling	forced base cooling	
Burning position	vertical, anode (+) underneath	

### ■ Safety Instruction

Due to their high luminous efficacy, the UV radiation which they emit and the high pressure within the lamp, HBO<sup>®</sup> lamps must be operated within enclosed, purpose-built housings. When a lamp breaks, mercury is released. Particular safety regulations must be paid attention (for details please request technical information sheet no. FO 4574).

