

## Technical Information

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Mercury Short Arc Lamp  
for Microlithography

# HBO<sup>®</sup> 1000 W/D

### ■ Product description

The OSRAM HBO<sup>®</sup> 1000 W/D is a direct current mercury short arc i-line lamp designed for the manufacture of integrated circuits. This lamp type emits a very high radiant intensity in the 350 - 450 nm wavelength range and is optimized for Suss mask aligners MA150, MA200, MA4, MA6, MA8.

### ■ Technical data

|  |                 |                           |
|--|-----------------|---------------------------|
| Order reference                                      |                 | HBO <sup>®</sup> 1000 W/D |
| Rated lamp wattage                                   | W               | max.1,000                 |
| Rated lamp voltage                                   | V               | 37.7                      |
| Rated lamp current (=)                               | A               | 26.5                      |
| Ignition voltage (cold)                              | kV <sub>S</sub> | max. 15                   |
| Radiant power (wave length range 350 ... 450 nm)     | W               | 105                       |
| Radiant intensity (wave length range 350 ... 450 nm) | mW/sr           | 10,800                    |
| Electrode gap e (cold)                               | mm              | 3.0                       |
| Lamp length (overall) l <sub>1</sub>                 | mm              | max. 240                  |
| Lamp length l <sub>2</sub>                           | mm              | 206 / max.208             |
| Bulb diameter d                                      | mm              | 40                        |
| LCL a  | mm              | 89.5                      |
| Guaranteed life                                      | h               | 1000                      |

Base SFc15-6/25ha with thread M6

### ■ Lamp operation

|                                      |                                |     |
|--------------------------------------|--------------------------------|-----|
| Maximum permissible base temperature | °C                             | 230 |
| Cooling                              | Convection                     |     |
| 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).

