

## Technical Information

No. FO 4829

Edition: 09/10 - subject to change

Substitutes: Edition 09/09

Status: valid

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	1000
		Min./max. 900 / 1,200
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	1500 explosion
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).

