Technical Information

No. FO 5095

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Substitutes: Edition 17/00

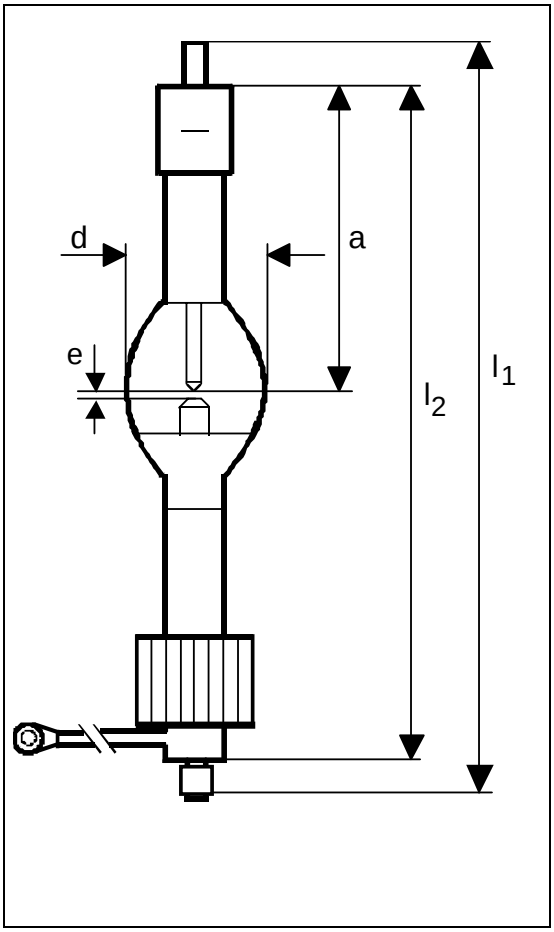
Status: valid

Mercury Short Arc Lamp
for Microlithography

HBO® 1500 W/PIL

■ Product description

The OSRAM HBO® 1500 W/PIL is a 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 designed and optimized for use in ASML equipment (PAS 5500/22, /100, /100B, /TFH 100). It is also available as standard-version HBO® 1500 W/PI with an average 850h service life.



■ Technical data

Order reference	HBO®	1500 W/PIL
Rated lamp wattage	W	1,500
Rated lamp voltage	V	23
Rated lamp current (=)	A	65
Ignition voltage (cold)	kV_S	max. 20
Radiant intensity (wave length range 365 ± 2,5nm)	mW/sr	4,850
Electrode gap e (cold)	mm	4
Lamp length (overall) l_1	mm	max. 273
Lamp length l_2	mm	240 / max. 242
Bulb diameter d	mm	46
LCL a	mm	118
Guaranteed life	h	1,500
Base		• Cathode: SFc 27-10/35 • Anode: SFc 30-6/25 with cooling fins and cable connection

■ Lamp operation

Maximum permissible base temperature	°C	200
Cooling		forced base cooling, cooling fins on anode base
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® 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).

Display/Optic Division
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