Technical Information

No. FO 5069

Edition: 01/03 - **subject to change**

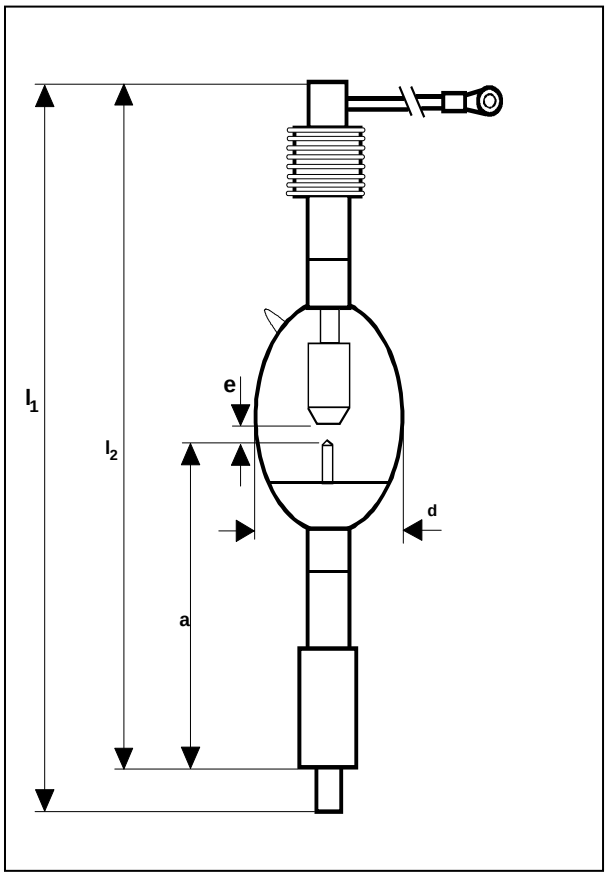
Substitutes: Edition 06/02
Status: valid

Mercury Short Arc Lamp
for Microlithography

HBO® 4500 W/CIL

■ Product description

The OSRAM HBO®4500 W/CIL is a direct current mercury short arc 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 5500 ix and iz –series of Canon steppers.



■ Technical data

		HBO® 4500 W/CIL
Rated lamp wattage	W	max. 4,500
Rated lamp voltage	V	30
Rated lamp current (=)	A	150
Ignition voltage (cold)	kV_S	max. 20
Radiant intensity (wave length range 365 ± 2,5nm)	mW/sr	14,320
Electrode gap e (cold)	mm	6.5
Lamp length (overall) l_1	mm	max. 355
Lamp length l_2	mm	330
Bulb diameter d	mm	85
LCL a	mm	157
Guaranteed life	h	1,500
Base		• Cathode: SFa 36-16/50 • Anode: SfaX 46-10/50 with cable connection (M8)

■ Lamp operation

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

■ 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
Berlin, Germany

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The lamp contains overpressure even in cold status – additional safety regulations, supplied with the lamps, have to be fulfilled.

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Berlin, Germany