

## Technical Information

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## Mercury Short Arc Lamp

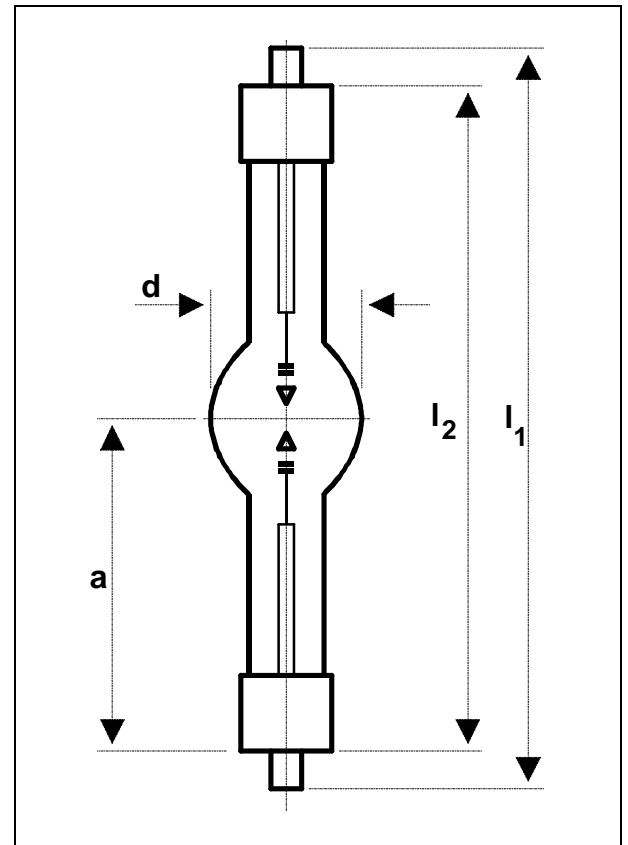
# HBO<sup>®</sup> 50 W/AC

### ■ Product description

The HBO<sup>®</sup> 50W/AC belongs to the group of mercury short arc lamps, of which the discharge arc burns in an atmosphere of high pressure mercury vapour. The HBO<sup>®</sup> 50 W/AC is a lamp type, which is generally used in microscopy and is designed for operation in alternating current mode only and is offered in two operating voltage groups,  $I_1$  and  $I_2$ .

### ■ Technical data

Order reference		HBO <sup>®</sup> 50 W/AC
Rated lamp wattage	W	50
Rated lamp voltage $I_1$	V	39..45
	$I_2$	34..39
Rated lamp current $I_1$	A	1,3
	$I_2$	1,45
Luminous flux	lm	2.000
Luminous efficacy	lm/W	40
Luminous intensity	cd	230
Average luminance	cd/cm <sup>2</sup>	30.000
Electrode gap e	mm	1,15
Lamp length (overall) $I_1$	mm	max. 53
Lamp length $I_2$	mm	max. 47
Bulb diameter d	mm	9,0 ± 0,2
LCL a	mm	22
Average service life	h	100
Base		Sfa 6-2
Maximum permissible base temperature	°C	230
Burning position		vertical ± 45°; s 45



### ■ Lamp operation

#### Choke and starter:

For AC operation special chokes or leakage transformers are mainly used. Due to leakage of the operating voltage, it is not possible to use fixed chokes. The chokes have to be equipped with two tabs for the respective operating voltage groups  $I_1$  and  $I_2$ .

The OSRAM CENTRA<sup>®</sup> starter St 192 serves to ignite the HBO<sup>®</sup> 50W/AC. If the lamp does not strike the first attempt, the starter St 192 will, after a brief period, switch off automatically. It can be reset by pressing down the push-button. A hot lamp must first cool off before it can be restarted with the starter St 192.

#### Safety:

Due to their high luminous efficacy, the UV radiation which they emit and the high pressure within the lamp during operation, HBO<sup>®</sup> lamps may only be operated within enclosed, purpose-built housings. When a lamp breaks, mercury is released. Particular safety regulations should be observed (request technical information sheet no. 4574).