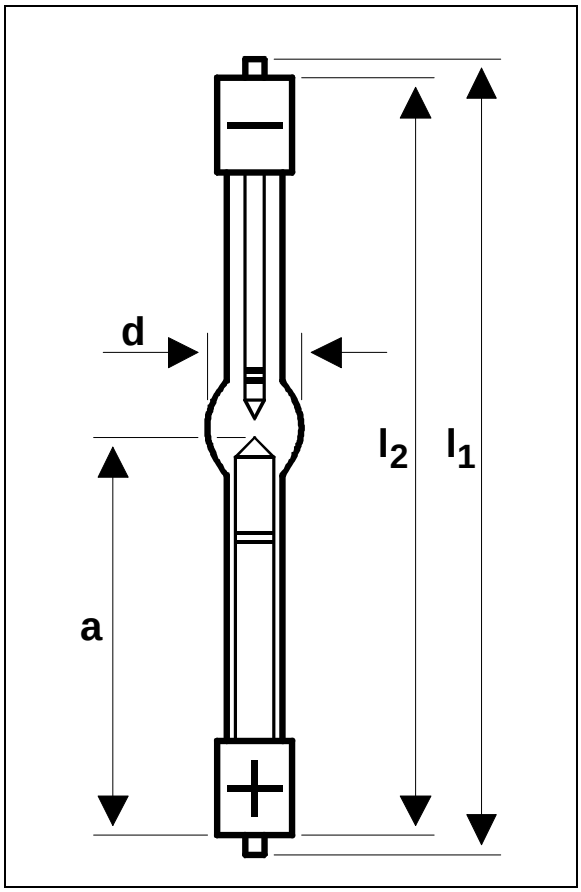
## ■ Product description

- Mercury discharge lamp
- Short arc
- For DC operation at constant power
- High pressure during operation
- For vertical and horizontal operation




## ■ Electrical Data and Lamp Geometry

| | | |
|---|---|---|
| Rated lamp power | W | 100 |
| Rated lamp current | A | 4.44 |
| Initial voltage range | V | 20 ... 25 |
| Ignition voltage (cold) | V | 850 |
| Overall lamp length $l_1$ | mm | max. 90 |
| Lamp length $l_2$ | mm | max. 82 |
| Bulb diameter d | mm | max. 10 |
| Length a [1] | mm | 43.0 ± 1.5 |
| Arc gap (cold) | mm | approx. 0.6 |
| Base (anode side)<br>Base (cathode side) | | • SFa 9-2/13<br>• SFa 7.5-2/11 |

## ■ Performance Data [2]

| | | |
|---|---|---|
| Initial luminous flux | lm | min. 2550 |
| Initial average luminance | cd/cm² | min. 150000 |
| Initial light intensity [3] | cd | min. 270 |
| Declared service life [4] | h | 300 |

Full luminous flux is generated after a run-up phase of approximately five minutes.

## ■ Mounting

This lamp should be mounted at the anode base; the cathode base should be left unsupported. It is allowed to mount at the cathode base leaving the anode base unsupported; however, this renders length „a“ meaningless.

[1] Length „a“ specifies the position of anode tip referring to reference plane at room temperature.
[2] At rated power if not otherwise specified; data pertains to both vertical and horizontal operation.
[3] Light intensity in the plane containing anode tip and vertical to lamp axis
[4] At switch cycle 2 hours on, 2 hours off

## ■ Operation Conditions

| | | |
|---|---|---|
| Burning position | | s 90 (vertical-to-horizontal, anode down) |
| Base temperature | °C | max. 230 allowed |
| Cooling | | depending on lamp housing convection may be sufficient |
| Arc stabilisation | | not required |
| Allowed power range [5] | W | 70 ... 125 (in case of short-time line voltage deviations) |
| Required inrush current | A | min. 5, max 8 |
| Polarity | | for proper polarity observe base marking |

This lamp type can be operated both on a standard ballast and on an electronic power supply provided they comply with the requirements laid down in „Guidelines for Power Supplies and Igniters. Mercury Short Arc Lamps. Photo Optics“ (see table below).

## ■ Additional Documentation

| **Title** | **Order reference** |
|---|---|
| • Typical Spectral Distribution | |
| • Lamp and Ignition Voltage of Small HBO and XBO | No. FO 4738 |
| • Mercury Safety Instructions for HBO Short Arc Lamps | No. FO 4574 |
| • Guidelines for Power Supplies and Ignitors | No. FO GL-2 |
| • Technology and Applications. HBO Low Wattage Lamps | under preparation |

For the above mentioned publications contact an OSRAM representative in your neighbourhood.

[5] It is recommended to operate this lamp with rated power.