

# Infrared

## Check list for Infrared lamps

Date:

Name:

Company:

requested amount:

**If known:**

**Manufacturer** of the Infrared lamp:

**Article- or catalogue number:**

Does the lamp work fine in customers' application?

Yes

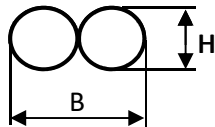
No

*Should these information not be available, a new sample lamp has to be send to UV-Technik for inspection. (Otherwise, heating processes could probably not work in the system!)*

- Application:**
- Medium wave (IRM)  for continuous operation or **very long** switching cycles with 800°C (1100K) up to 950°C (1200K)
  - Fast medium wave (IRSM)  suitable for continuous operation and **very short** cycles with 1400°C (1700K) up to 1800°C (2100K)
  - Short wave (IRK)  1800°C (2100K) up to 2400°C (2700K)
  - Narrow infrared (NIR)  from 2400°C (2700K)
  - unknown

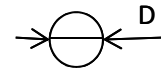
**Geometry of quartz glass tube:**

Twin tube



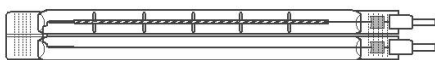
- 8,5 x 17 mm
- 11 x 22 mm
- 15 x 30 mm

Single tube



mm in diameter

**Design of twin tube lamp:**



A



B

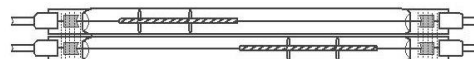


K

- customized design possible acc. to techn. clarification -



C



D

**Electrical values:**

Operation voltage:  V

Electrical power:  W

Frequency  50 Hz

Operation current:  A

Color temperature:  K

60 Hz

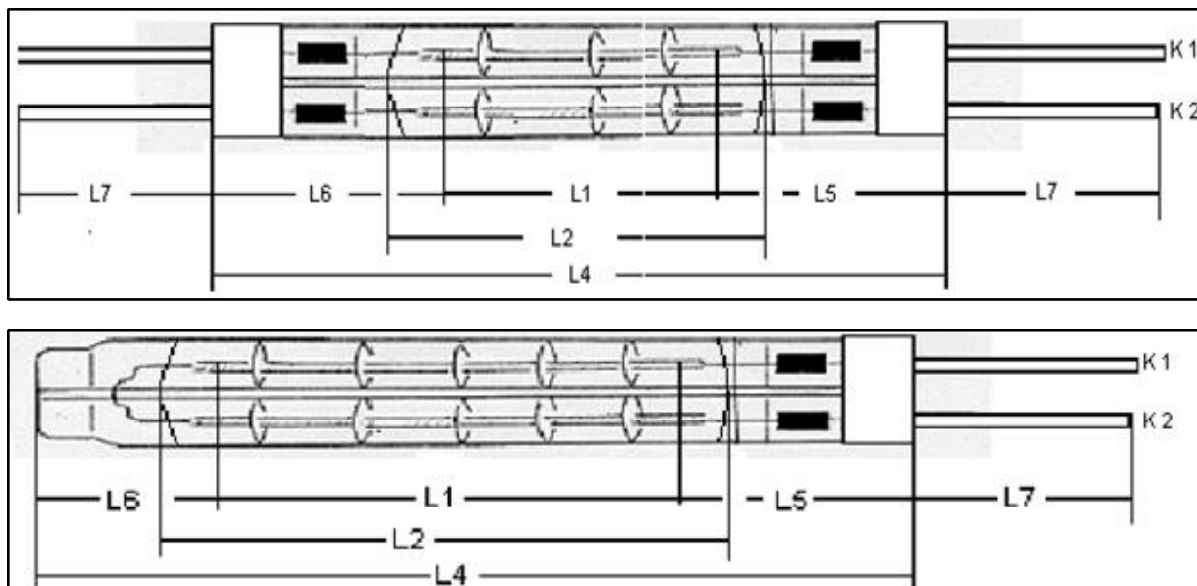
**Position:**

- p 5 (maximal 5° raked out of horizontal position)
- p15 (maximal 15° raked out of horizontal position)
- p45 (maximal 45° raked out of horizontal position)
- u360 (arbitrary position, vertikal permitted)

**Quartz glass tube coated with reflector**

- Yes
  - Gold, 180°
  - Al<sub>2</sub>O<sub>3</sub>, 180°
  - other
- No

**Geometrical lamp dimensions:**



- Channel 1
- L1 =  mm
  - L2 =  mm
  - L3 =  mm
  - L4 =  mm
  - L5 =  mm
  - L6 =  mm
  - L7 =  mm

- Channel 2
- L1 =  mm
  - L2 =  mm
  - L3 =  mm
  - L4 =  mm
  - L5 =  mm
  - L6 =  mm
  - L7 =  mm

- L1 = Heating length
- L3 = Glass tube length
- L5 = Length between reflector and socket end
- L7 = Length of wire

- L2 = Length of reflector
- L4 = Total length
- L6 = Length between reflector and glass/ socket end

**Special working conditions:**

- strong vibrations
- operation process in vacuum
- movement during operation

**Specification of wires:**

*Isolation:*

- Silicone, 180°C temperature resistant
- PTFE (Teflon), 260°C temperature resistant
- Kapton (Polyimid), 600°C temperature resistant

*Conducting material:*

- Nickel
- Copper, nickel-plated