

Infrared emitters



Infrared emitters can heat a variety of materials. Heating by radiation has the advantage that no contact between the object and the thermal source is required. For example, infrared radiation is used in practice to heat plastic films for the thermal forming process. Heating by radiation can also be used in vacuum.

A disadvantage of heat transfer by infrared radiation is the fact that a relatively high temperature of the thermal source is required and that the material to be heated must absorb the infrared radiation, i.e. it must not be metallically bare.

Anwendungsbereiche:

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Radiator variants

Infrared emitters are mainly distinguished by two variants which differ in the wavelength of the radiation and the response time.

I. Ceramic infrared emitters

- Wave length: long waves
- Response time: long
- Mechanical stability: more robust than quartz-type infrared radiator

II. Quartz-type infrared emitters

- Wave length: medium to long waves
- Response time: medium
- Mechanical stability: more sensitive than ceramic infrared radiators

Dimensions

Infrared radiators are available in different standardized dimensions:

I. Ceramic infrared emitters, flat

- V3: 122 x 122 mm (150 - 750 W)
- V4: 122 x 60 mm (125 - 500 W)
- V9: 245 x 60 mm (150 - 1000 W)

II. Ceramic infrared emitters, curved

- V1: 245 x 60 mm (150 - 1000 W)
- V2: 122 x 60 mm (125 - 500 W)
- V5: 68 x 60 mm (75 - 200 W)

III. Quartz-type infrared emitters, flat

- Q5: 123 x 62 mm (150 - 375 W)
- Q10: 248 x 62 mm (300 - 750 W)