



## FFE - Full Flat Element

### Properties

The standard range of ceramic infrared elements in stock are used in a wide range of industrial and engineering applications such as thermoforming, packaging, paint curing, printing, drying, gluing, sterilisation, roasting etc. They are also very effectively used in infrared outdoor heaters and saunas.

Most plastics and many other materials absorb infrared best in the wavelength range of 2-10  $\mu\text{m}$ , which makes the ceramic heater the most popular radiant emitter on the market.

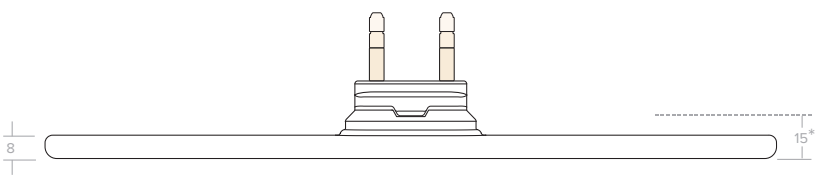
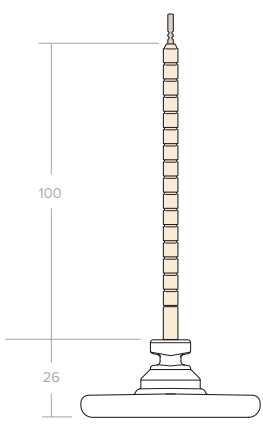
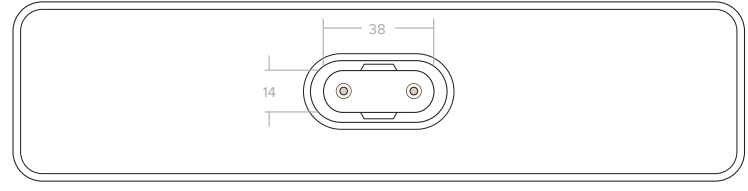
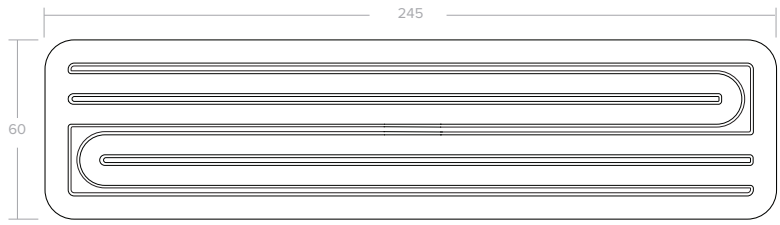
### Technical specification

Material	Ceramic solid body in white glaze colour with an embedded resistance heating coil
Heater Voltage	230 V (standard)
Operating Temperature	Max permissible 750°C
Useful wave-length range	2 - 10 $\mu\text{m}$ (microns) long wavelength
Dimensions	245 x 60 x 26 mm
Average weight	277 g
Electric connection	100 mm ceramic beaded power leads
Assembly	Recommended radiation distance from heater is 100mm to 200mm. Mounting slot size oval 15x42 mm Steel wave spring and clip set included
Recommended Spacing	5mm minimum spacing between elements
Average operating life	Up to 20 000 hrs depending on conditions
Standards	CE, UL-499
Packaging w x h x d	252 x 62 x 44 mm



### Standard assortment

Model FFE	Power W	Mean Surface Temperature °C	Max Power Density kW/m <sup>2</sup>
FFE 250	250	351	15
FFE 300	300	405	18
FFE 400	400	480	24
FFE 500	500	515	30
FFE 650	650	596	39
FFE 750	750	624	45
FFE 1000	1000	726	60

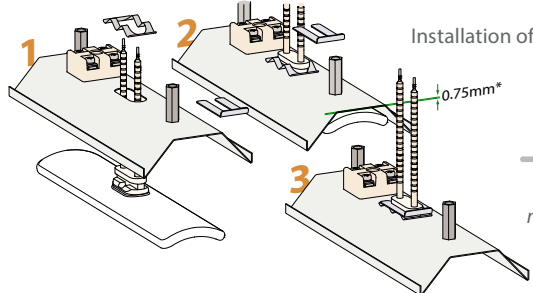


**FFE FULL FLAT ELEMENT**  
24.0719

Tolerances apply, all dimensions mm.  
\* Face of reflector - face of element using 0.75mm reflector, mounting slot size 15 x 42 mm



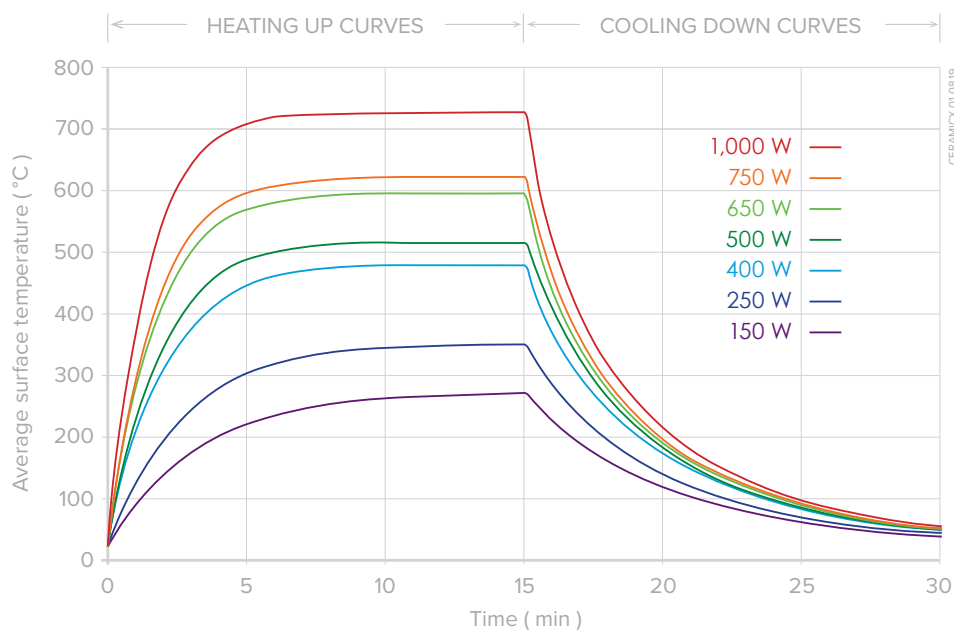
Comes with Wave Spring and Clip



**Installation of pillared elements**

Recommended reflector thickness  
0.75 - 0.9 mm  
0.0296" x 0.0354"  
min/max thickness 0.5 - 1.5 mm  
0.0197" x 0.059"

**Recommended Slot hole size 42 x 15 mm**  
1.6535" x 0.5905"



**FFE Full Flat Element**

Heating up and cooling down curves showing average surface temperature taken with an infrared thermometer set at an emissivity of 0.95 (Element mounted in an aluminised steel reflector RAS)