

## FQE - Full Quartz Element TC/K

### Properties

Quartz infrared heating elements provide medium wave infrared radiation. They are favoured in industrial applications where a more rapid heater response is necessary, including systems with long heater off cycles.

The standard quartz heating elements range consists of cassette style elements constructed with aluminised steel as standard, stainless steel is also an option. These emitters have peak emissions in the medium to long wavelength range.

Type K thermocouple is the standard we use. This gives an indication of the operating temperature of the emitter itself at a point close to the resistance heating coil.

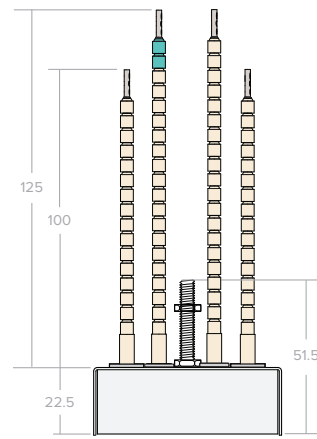
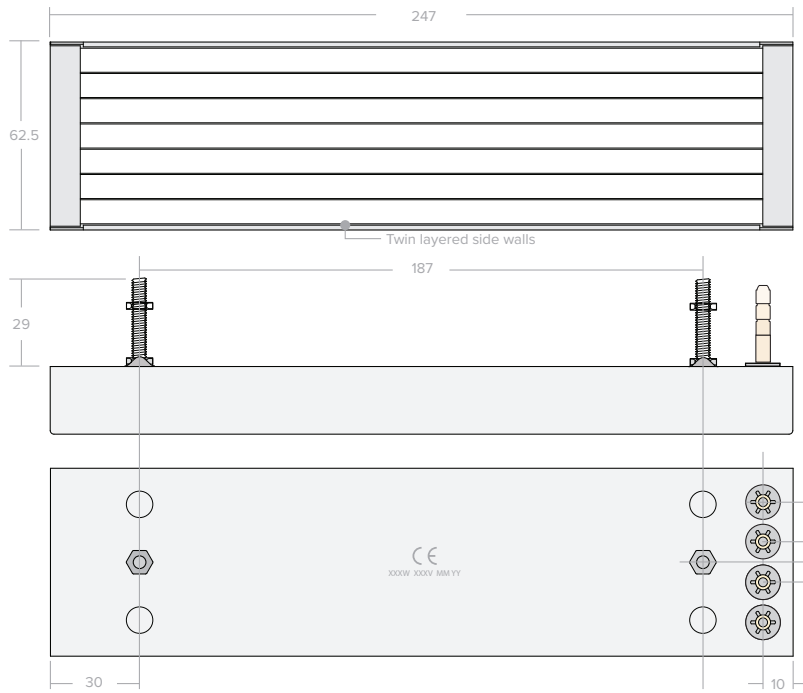
### Technical specification

Material	Aluminium clad steel body with an embedded iron-chrome aluminium resistance wire
Heater Voltage	230 V (standard)
Operating Temperature	Max permissible 500°C
Useful wave-length range	1.5 - 8 $\mu\text{m}$ (microns) long wavelength
Dimensions	247 x 62.5 x 22.5 mm
Average weight	388 g
Electric connection	100 mm ceramic beaded power leads 125mm ceramic beaded thermocouple leads
Assembly	Recommended radiation distance from heater is 100mm to 200 mm. Heater is mounted using 2 M5 x 30mm fixings screws attached to the rear of the element.
Recommended Spacing	5mm minimum spacing between elements
Average operating life	Up to 5 000 hrs depending on conditions
Standards	CE
Packaging w x h x d	252 x 64 x 64 mm



### Standard assortment

Model FQE	Power W	Mean Surface Temperature °C	Max Power Density kW/m <sup>2</sup>
FQE 150	150	343	9
FQE 250	250	438	15
FQE 300	300	477	18
FQE 400	400	542	24
FQE 500	500	593	30
FQE 650	650	664	39
FQE 750	750	690	45
FQE 1000	1000	772	60



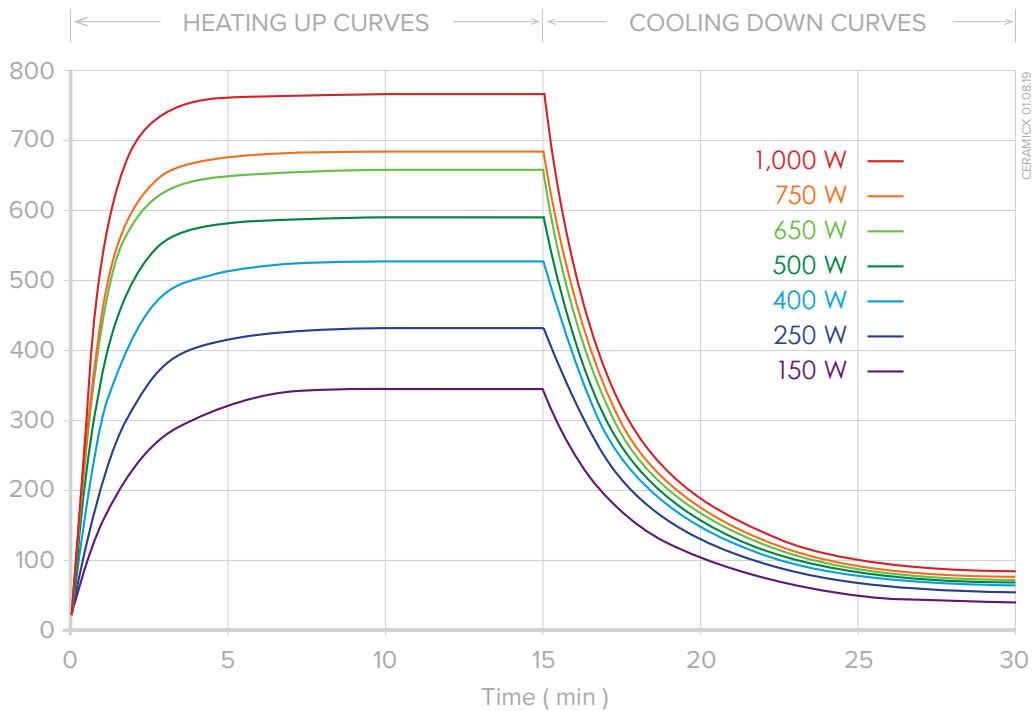
**FQE FULL QUARTZ ELEMENT**  
01.05.20

Tolerances apply, all dimensions mm.  
Heater body manufactured from 0.75 mm  
polished aluminium clad steel (500°C max)



Recommended  
reflector thickness  
0.75 - 0.9 mm  
0.0296" x 0.0354"

For fitting instructions see  
[www.ceramicx.com/ir-heaters-installation-instructions/](http://www.ceramicx.com/ir-heaters-installation-instructions/)



**FQE Full Quartz Element**

Heating up and cooling down curves showing average surface temperature taken with an infrared thermometer set at an emissivity of 0.7