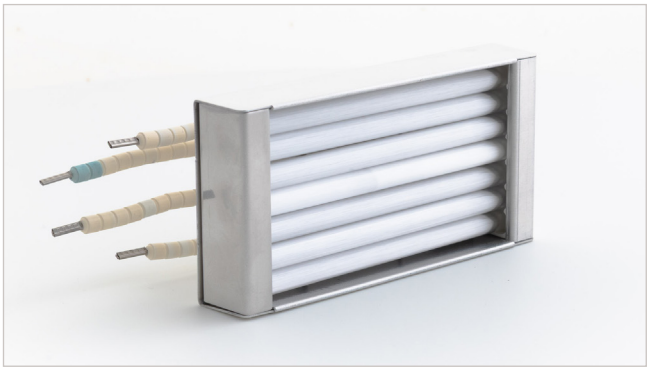
HQE-TcK - Half Quartz Element TcK



Thermocouple position for FQE elements higher than 250W

Half Quartz Element Hollow with type K Thermocouple

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 polished aluminium clad 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 tempreature of the emitter itself at a point close to the resistance heating coil.

Technical specification

Material	Polished aluminium clad steel body with an ironchrome aluminium resistance wire
Heater Voltage	230 V *(standard)*
Useful wave-length range	1.5 - 8 µm *(microns)* - Long wave
Dimensions	123.5 x 62.5 x 22.5 mm
Average weight	220 g
Electric connection	120 mm ceramic beaded power leads 150 mm ceramic beaded thermocouple leads
Assembly	Recommended radiation distance from heater is 100 - 200mm
Mounting	2 x M5 x 30 mm fixing
Element spacing	Minimum spacing between elements 5 mm
Average operating life	Up to 10,000 hrs depending on conditions
Standards	CE
Operating temperature	Ensure temperature of aluminium clad steel body does not exceed 500 °C
Note	Element should always be mounted so the quartz glass tubes are horizontal.

Standard HQE TcK range

	Mean Surface Temperature °C	Max Power Density kW/m^2
200 W	542	23.0
250 W	593	28.7
325 W	664	37.3
375 W	690	45.9
500 W	772	57.4

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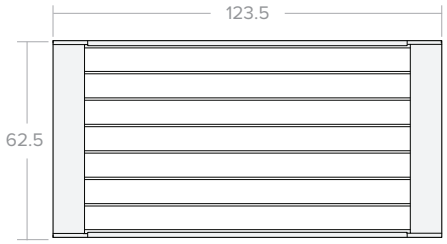
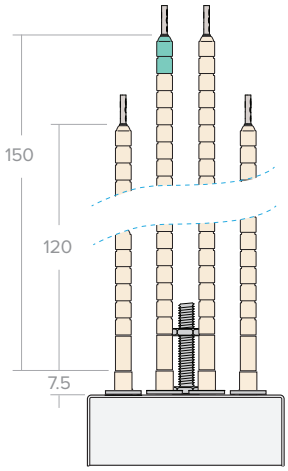
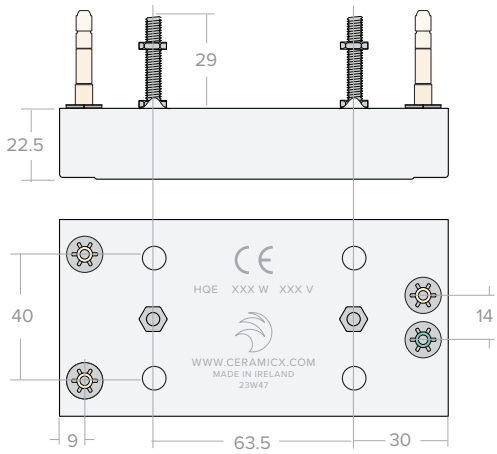
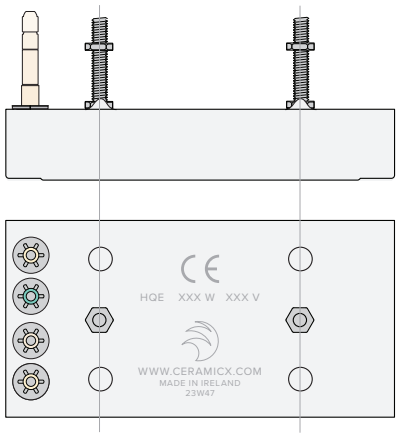




THERMOCOUPLE POSITION FOR HQE ELEMENTS 250W OR LOWER



THERMOCOUPLE POSITION FOR HQE ELEMENTS HIGHER THAN 250W



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HQE TcK HALF QUARTZ ELEMENT
WITH TYPE K THERMOCOUPLE

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

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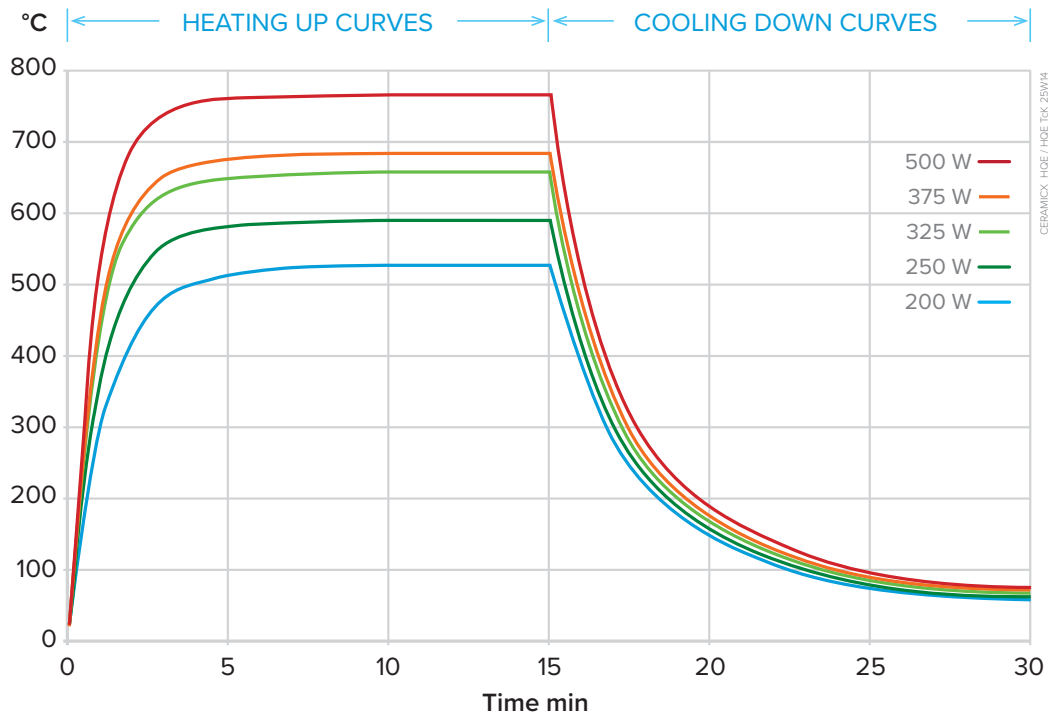

HQE TcK

Heat up and cool down curves showing average surface temperature measured with an infrared thermometer set to an emissivity of 0.7