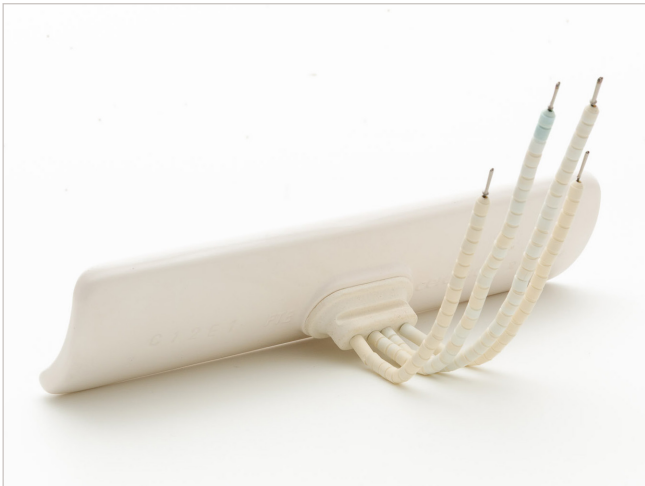
# **FTE TcK** - Full Trough Element TcK



## Ceramic Full Trough Infrared Heating Element with type K Thermocouple

Widely used across industrial and engineering applications, including thermoforming, packaging, paint curing, printing, drying, gluing, sterilisation, and roasting. They are also highly effective in infrared outdoor heaters and saunas. Most plastics and many other materials absorb infrared radiation most efficiently in the 2–10 µm wavelength range, making ceramic heaters the preferred choice among radiant emitters.

Recommended radiation distance from heater is 100 - 200 mm.

## Technical specification

| | |
|---|---|
| Material | Ceramic body, white glaze, embedded resistance heating coil |
| Heater Voltage | 230 V *( standard )* |
| Operating temperature | Max permissible 750°C *( 1382 °F )* |
| Useful wave-length range | 2 - 10 µm *( microns )* - Long wave |
| Dimensions | 245 x 60 x 35 mm |
| Average weight | 250 g |
| Electric connection | 120 mm ceramic beaded power leads<br>150 mm ceramic beaded thermocouple leads |
| Reflector thickness | Recomended thickness 0.75 - 0.9 mm<br>*min/max thickness 0.5 - 1.5 mm* |
| Mounting slot size | 42 x 15 mm |
| Element spacing | Minimum spacing between elements 5 mm |
| Average operating life | Up to 20,000 hrs depending on conditions |
| Standards | CE, UL |
| Packaging ( *L x W x H* ) | 252 x 64 x 64 mm |

## Standard FTE range

| | Mean Surface Temperature °C | Max Power Density kW/m$^2$ |
|---|---|---|
| 150 W | 272 | 9.2 |
| 250 W | 351 | 15.3 |
| 400 W | 480 | 24.6 |
| 500 W | 515 | 30.7 |
| 650 W | 596 | 40.0 |
| 750 W | 624 | 46.1 |
| 1000 W | 726 | 61.5 |

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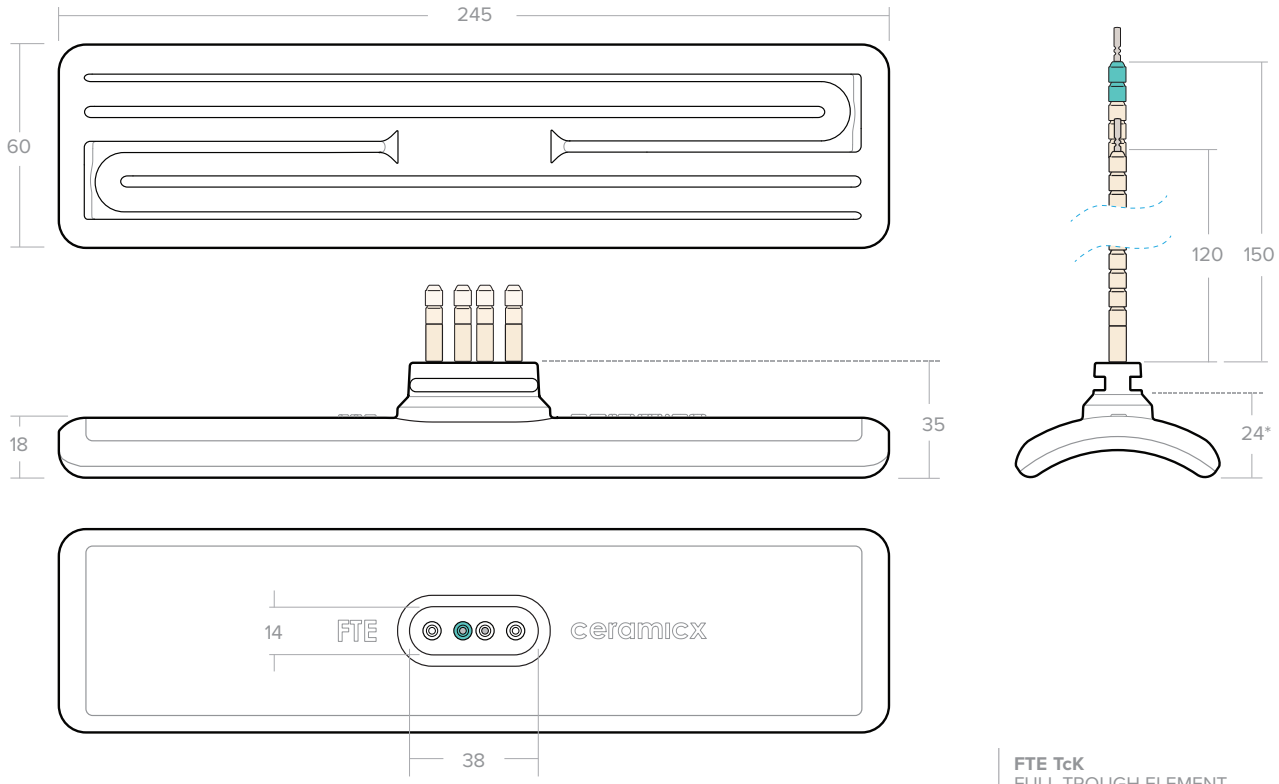


**FTE TcK**
FULL TROUGH ELEMENT
WITH TYPE K THERMOCOUPLE

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

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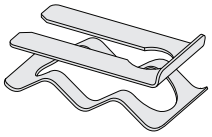
Element supplied with Wave Spring and Clip



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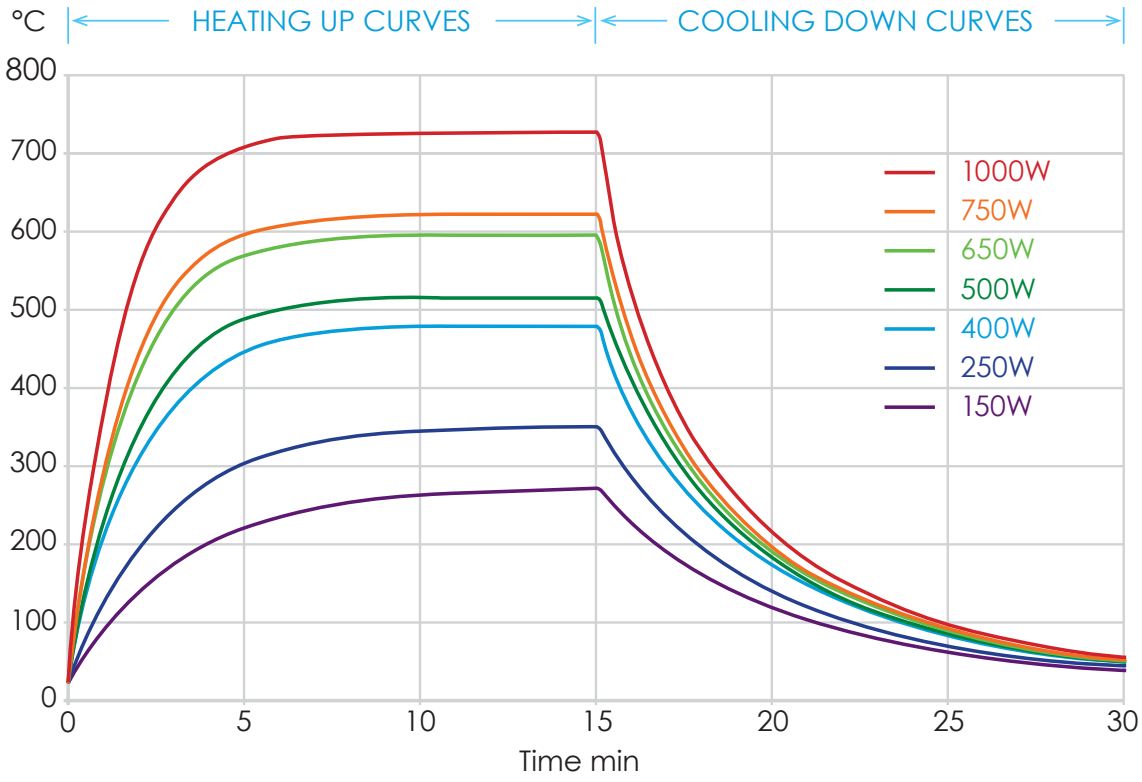


**FTE TcK** Heat up and cool down curves showing average surface temperature measured with a thermal imaging camera set to an emissivity of 0.95 ( *element mounted in a polished aluminium clad steel reflector* )

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