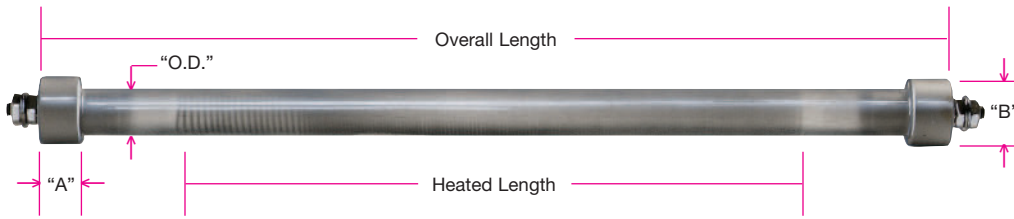


# Radiant Process Heaters



## KRD Radiant Quartz Heaters

### Vitreous Silica Quartz Tube



#### Quartz Heater Dimensions

Quartz Tube O.D.	"A"	"B"
3/8"	3/8"	5/8"
1/2"	1/2"	7/8"
5/8"	1/2"	7/8"

**Tempco Radiant Quartz heaters** are one of the most efficient sources of radiant energy. They are ideally suited for processes that require wavelengths in the medium 4.0-2.4 micron band for efficient operation. These heaters are capable of generating full heat output in 80-100 seconds with a cool-down range of 180-225 seconds depending on the mass of the resistance coil and power density level.

They offer excellent life when used in either rapid cycling or continuous radiant heating applications. To achieve the best operating life, these quartz heaters should be operated with surface watt densities in the 35-40 watts per square inch range, not exceeding the maximum power densities specified below.

#### Construction Features

The heater consists of a helically wound resistance wire coil enclosed in a pure vitreous silica fused quartz tube with a translucent (semi-opaque) surface. The tubing is terminated at the ends with specially designed ceramic caps securely fastened with high temperature ceramic cement providing support for the field wiring screw terminals used for power connections.

The diffusion effect of the opaque quartz tube surface broadens the emitted wavelength range without creating objectionable glare due to emissions in the visible spectrum. Optimum design provides a clear red color on the translucent tube surface when operating at full line voltage. The emitted wavelength band is almost completely absorbed by the process and considered best for most industrial radiant applications.

#### Typical Applications

- ➔ Shrink Packaging Tunnels
- ➔ Fusing Plastics
- ➔ Food Warming
- ➔ Drying Photo Film Equipment
- ➔ Drying Sand Cores
- ➔ Laminating
- ➔ Vulcanizing Rubber
- ➔ Thawing
- ➔ Curing Rubber
- ➔ Space Heaters
- ➔ Thermoforming
- ➔ Sterilization
- ➔ Electrostatic Copying Equipment
- ➔ Drying Textiles
- ➔ Thermal Copying Equipment
- ➔ Plastic Forming
- ➔ Sealing
- ➔ Food Processing
- ➔ Drying Lacquers and Paints

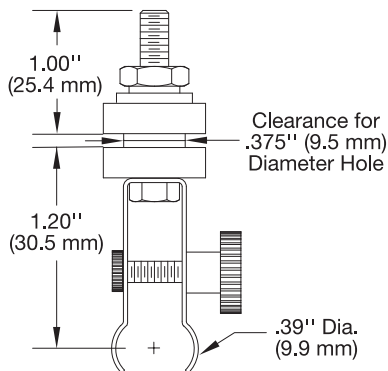
#### QUARTZ HEATER SPECIFICATIONS – DIMENSIONAL

**Diameters:** 3/8", 1/2" and 5/8"  
**Max. Length:** 3/8" dia. – 50"  
 1/2" dia. – 100"  
 5/8" dia. – 100"  
**Length Tolerance:** Up to 12" long  $\pm 1/8"$   
 Over 12" long  $\pm 1/4"$

#### QUARTZ HEATER SPECIFICATIONS – ELECTRICAL

**Max. Volts:** 480 Volts  
**Max. Amperage:** 20 Amps  
**Resistance Tolerance:** +10%, -5%  
**Wattage Tolerance:** +5%, -10%  
**Max Watt Density:** 40 Watts/sq. in.

#### Mounting Clamp for 3/8 Quartz Tube OD



**Mounting Clamp Part Number: CRK00059**

#### Type ARK Vitreous Silica Quartz Tube Panel Arrays

Custom 4" high Type ARK panels with 1/2" diameter quartz elements are available. Tempco will design and build to your specifications. Consult us with your requirements.



**Warning:** Quartz Heaters are designed to be used in a Horizontal Position Only

**View Product Inventory @ [www.tempco.com](http://www.tempco.com)**