

## CIR SERIES CARTRIDGE HEATERS WITH BUILT-IN THERMOCOUPLES



### Type J or K

### THERMOCOUPLE CARTRIDGE STYLES

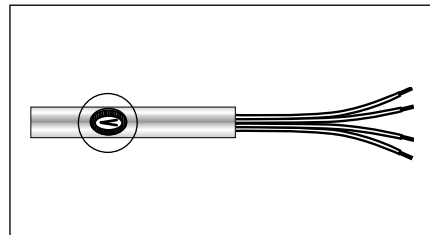
- ✓ Process Temperature Control
- ✓ Protection from Overheating and Temperature Burnout
- ✓ Custom Designed Cartridge Heaters for CIR Series

In some applications, the heating element temperature is closely related to the temperature of the platen or mold it is heating. OMEGALUX® cartridge heaters with built-in thermocouples allow you to precisely measure the temperature at the ideal measurement point within the cartridge heater, and control the internal heater temperature to more closely maintain the optimum process temperature. Longer heater life and increased heat transfer efficiency may be achieved by precisely controlling the heater temperature. Built-in Thermocouple Cartridge Heaters are available in three styles, each designed for specific application needs.

### THERMOCOUPLES

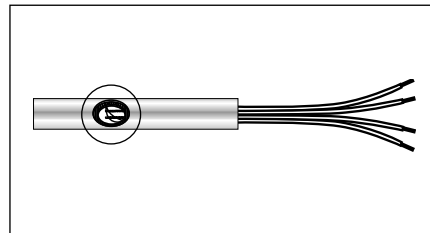
| Type                     | Range                                   |            |
|--------------------------|---|------------|
|                          | (°F)                                    | (°C)       |
| Type J                   | 100 to 1400                             | 38 to 760  |
| Type K                   | 100 to 2300                             | 38 to 1260 |
| Diameters                | 3/8, 1/2, 5/8, 3/4"                     |            |
| Leadwire Length          | Standard length 14", Maximum length 36" |            |
| Fluoropolymer Insulation | ≤400                                    | ≤205       |

Code T1



Thermocouple (T/C) junction is located in the center of the core and at any point along the length. The T/C is not grounded. Style T1 is used as an overtemperature control or for process temperature control.

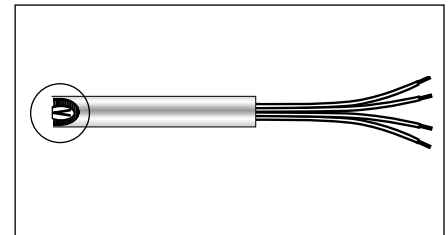
Code T2



T/C junction is located at most points along the length of the heater and grounded against the sheath. A 1/2" unheated section must be allowed for the T/C to clear the resistance wire.

Style T2 is used to control process temperature. The T/C should be placed along the length of the heater in the most suitable position to control the temperature of the mold or platen being heated.

Code T3



T/C junction is embedded in the end disc. The T/C is grounded.

Style T3 is used when the process temperature at the end of the cartridge heater is critical. In applications where the process product flows past the heater end, such as plastic molding, this thermocouple style allows the cartridge end temperature to be closely controlled.

### ADDITIONAL FEATURES

#### Thermocouples (Built-in):

**Style 1:**

T/C inside core (specify location)

**Style 2\*:**

T/C next to sheath (specify location)

**Style 3:**

T/C attached to end disc

**Note: Cartridge heaters with built-in thermocouples are made to order. Minimum order per item.**

**\*Style 1 & 2 not available on length shorter than 2 3/8"**