



1055 Gibbard Avenue · Columbus, Ohio 43201 USA

Telephone: (614) 294-3376 · Fax: (614) 294-3807 • www.briskheat.com

CTL (Cut-To-Length) Silicone Rubber Heating

Tape Installation Instructions

Safety Information

Please read all of the instructions before installing the CTL style tape. It is the user's responsibility to install the heating tape in conformance with local and electrical codes.

Warnings

To avoid personal injury:

- Do not use in the presence of flammable or combustible materials, fire or explosion may result.
- Never immerse the heater in water or any other fluid.
- Refer servicing to qualified personnel only.
- Never handle the heater while it is in operation.
- Always disconnect the heater from the power source and allow it to cool prior to removing.

Operation

Your CTL Heater is designed to provide a long and efficient service life. Overheating, contamination and misuse will greatly reduce the life of the heater. Silicone rubber heating tapes are moisture and chemical resistant.

Caution

To avoid damage to the CTL Heater:

- Never operate the heater without a temperature control device. Failure to use such a device may result in process damage or heater failure.
- Never lift or pull the heater by its leadwires.
- Never operate the heater without an appropriate heat sink. The heater should not be mounted free standing in air.
- Never operate the heater at temperatures above 232°C (450°F).
- Never punch holes in the heater.
- Always use CTL Termination kits for final assembly.
- Never allow foreign substances to bake on the heater. If spillage of foreign matter occurs, disconnect the heater from the power source and allow it to cool. After cooling, clean the heater with a solvent suitable for removing the substance.

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Installation

Prior to installing your CTL Heater:

- Check for suspected damage to the heater (for example: rips, punctures, etc.).
- Check the surface to be heated to ensure it is free of all jagged or sharp edges, weld spatter, rust, oil, loose paint, etc.

After you have installed your CTL Heater:

- Ensure the entire heater is in contact with the surface. If air gaps are present between the surface to be heated and the heater, heat transfer may be reduced. The reduced heat transfer could result in overheating of the heater.
- Ensure the heater is not wrapped over itself, another heater, or any obstruction it is not designed to heat.

Mounting your heater onto the surface:

Your CTL Heater can be used to heat either flat, curved surfaces, or piping. However, do not allow the heater to exceed the minimum-bending radius. The typical minimum bending radius is 1/8" (3mm).

Your heater can be attached to the surface by using:

- Mechanical clamping devices, which cause no damage to the heater.
- Adhesive tape that is rated for the control temperature (PSAT36, AAT260, or AAT2180)
- A thin layer of RTV.

Heaters attached with RTV may require a temporary method of attachment until the adhesive cures. The cure time will vary with temperature of the heater and the surrounding ambient conditions. The adhesive strength of the fully cured RTV is essentially the same whether cured at higher or lower temperatures. The only difference is the time required to reach complete cure.

Installing your heater to a power source:

- You **MUST** connect the heater to a temperature controller.
- Your heater is designed with a standard ohm per foot rating. Please refer to the equation, $V=IR$ (Ohm's Law) to calculate the current and wattage information. The amperage of the tape must not exceed the rating of the lead-wire used.
- The watt density should not exceed $5W/in^2$. The Watt density can be calculated by the following equation:

$$W_d = W_t / (w * L)$$

Where:

W_d = Watt Density

W_t = Total Watts ($Voltage^2 / (ohms/ft * L)$)

w = width of tape

L = length of tape

- Your heater is non-polarized, so either of the 2 wires may be hooked up to hot or neutral.
- All electrical connections must be made by qualified personnel and in accordance with all applicable codes and regulations.
- Ensure the heater is protected by a properly sized circuit breaker or fuse.