Marathon TempSens

ENGINEERED SOLUTIONS
FOR HEATING & SENSING
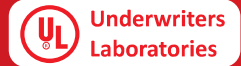
CERAMIC STRIP AND
FINNED STRIP HEATERS
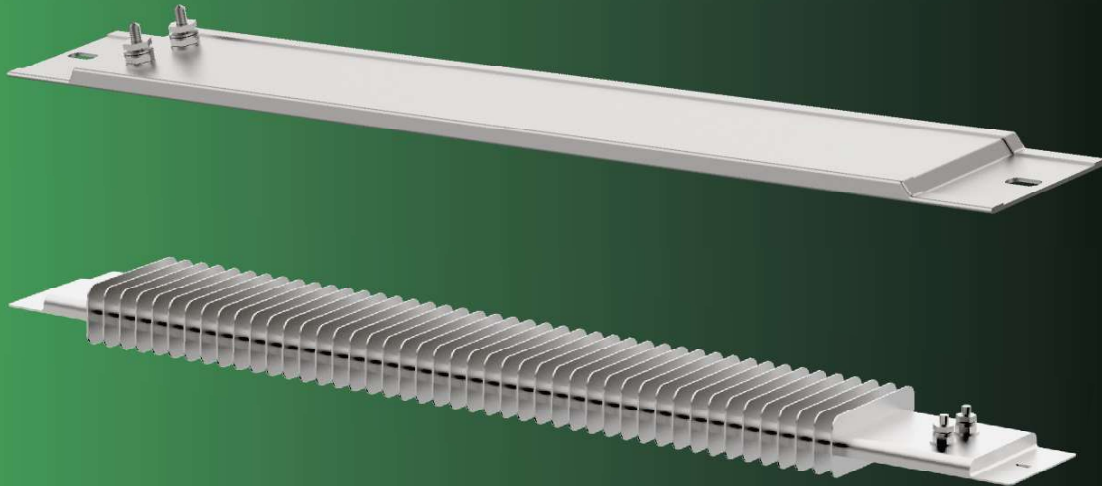
MARATHON HEATER (I) PVT. LTD.

Strip Heaters are an outstanding industrial heating product and are extremely effective in surface heating applications. They are composed of a resistance wire, uniformly coiled and stretched inside a ceramic insulator along the length and width of the heater to uniform heating. The assembly is embedded in a stainless steel sheath to have high mechanical strength and corrosion resistance and is filled with high purity magnesium oxide to remove air pockets and thus providing excellent thermal conductivity and dielectric strength. Available with or without mounting tabs, they can be either clamped or bolted onto solid surfaces.

For air heating applications, strip heaters incorporated with fins to maximize surface area increase heat transfer rates and thus provides more efficient heating. Finned Strip Heaters Supports both forced and natural convection air heating. Lower sheath temperature and element life are all maximized by this finned construction as fins improve heat transfer in free or forced air applications.

Construction

1. Nickel Chromium Resistance coil for maximum life, uniformly stretched for even heat distribution.
2. Stainless steel sheath for oxidation and corrosion resistance in wide variety of environment. Suitable for temperatures high as 650°C.
3 High Purity magnesium oxide for maximum dielectric strength, thermal conductivity and maximum heat transfer.
4 Ceramic Insulator to insulate resistance wire coil from the outer sheath.
5 High Temperature Lead Wires temperatures up to 550°C

Technical Specifications and Tolerances

- **Sizes** - 1 ½" wide, 5/16" to 3/8" Thick, 5 ½" to 48" length
- **Sheath Material -** Stainless steel
- **Maximum Sheath Temperature -** 650°C
- **Maximum Watt Density :** 45 W/in^2
- **Maximum Voltage -** 480 V
- **Wattage Tolerance -** +5%, -10%
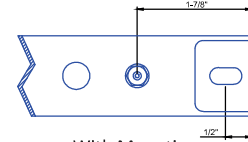- **Resistance Tolerance -** +10%, -5%

Note : For Custom design requirement, contact sales@marathonheat.com

Termination Options

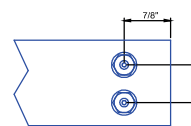### 1) Screw Termination
1) Both End

With Mounting
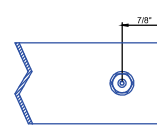
Without Mounting

Without Mounting   With Mounting
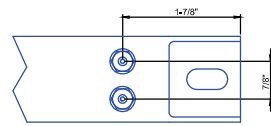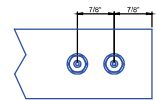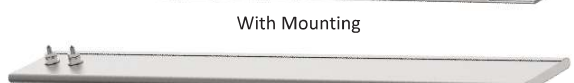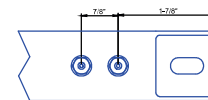
2) Parallel

With Mounting

Without Mounting

Without Mounting   With Mounting

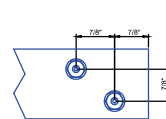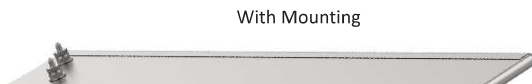**3) Offset**

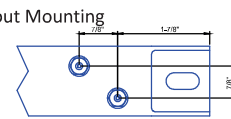With Mounting

Without Mounting

Without Mounting   With Mounting

4) Tandem

With Mounting

Without Mounting

Without Mounting   With Mounting

2) Lead wire termination Options
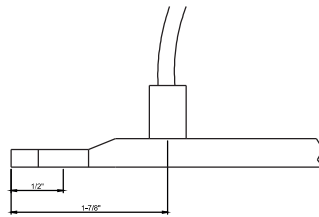
(a) Side of Heater

b) Top of Heater

7/8"   1/2"   1-7/8"
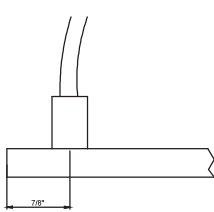
Without Mounting   With Mounting

Features And Benefits

• Available with or without mounting tabs

• Easy and economical to install

• Corrosion and vibration resistant

• Durable, versatile and easy to control

• Uniform Heat Distribution

• Suitable for Low to medium temperatures

Applications

• Surface Heating

• Process Air Heating

• Winterizing

• Space Heating

• Food warming

• Packaging and sealing

• Laboratory equipment

• Autoclaves and ovens

3) Lead wire Protection termination

Lead Wire Protection Termination- Lead wires exiting through the heaters can be provided with protective covering of-

• Stainless Steel Braid - stainless steel braid provides excellent abrasion protection while allowing the leads to bent in a tight radius

• Stainless Steel Flexible Conduit - Flexible conduit provides maximum protection to leads from abrasion but cannot bent as sharply as stainless steel braid.

• Copper Elbow and Stainless Steel Flexible Conduit - flexible conduit can be attached with a copper elbow.

• Sleeking

  • Silicon Rubber Fiber Glass Sleeking- Maximum temperature 200°C, can sleeve both leads together or each lead separately.

  • Fiberglass Sleeking- Maximum temperature 240°C, Good for lead protection

Terminal Box

Terminal box are used to cover the terminals and hence act as an safety feature. It also guards heater terminals from spillover, dripping.