

Quick Ship

- Same day shipment on all stock heaters with post terminals or Type B leads.

Band Heaters

MI Barrel and Nozzle

The MI Band is a high performance heater. Its performance and name are derived from Watlow's exclusive mineral insulation—a material that has much higher thermal conductivity than the mica and hard ceramic insulators used in conventional heaters.

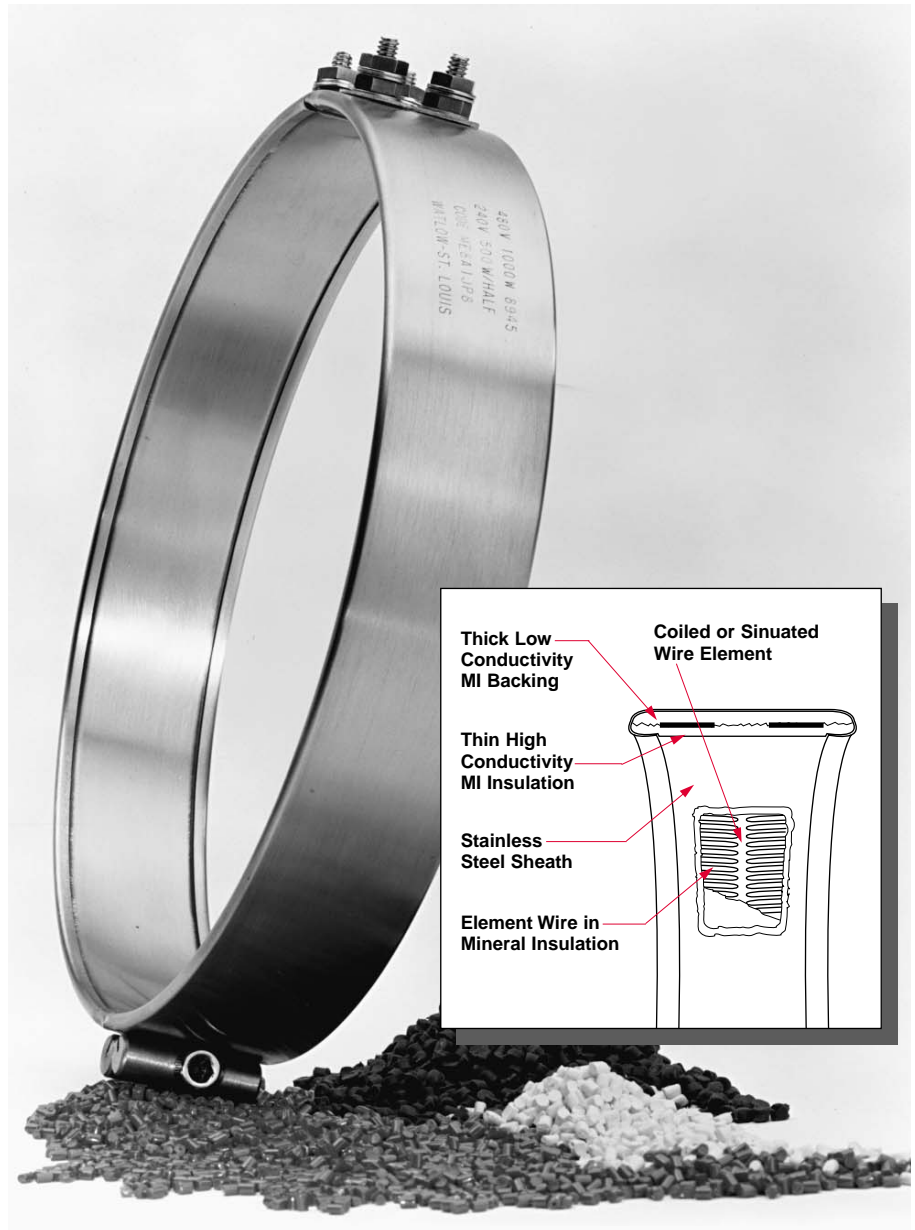
A thin layer of the “high” thermal conductive MI material is used to electrically insulate the element wire from the inside diameter of the heater sheath. A thicker, “low” thermal conductivity layer backs up the element wire, directing the heat inward towards the part that is being heated. The result is more efficient heat transfer ... a performance solution that lowers element wire temperatures and increases heater life.

Performance Capabilities

- Heater operating temperatures to 1400°F (760°C)
- Watt densities to 230 W/in² (35.6 W/cm²) available on small diameter nozzle bands
- Watt densities to 100 W/in² (15.5 W/cm²) available on large diameter barrel bands

Features and Benefits

- **Operating temperatures to 1400°F (760°C)** make it possible to safely melt even the newest resins, like Peek®, Teflon®, Ultem® and Zytel®.
- **Higher watt densities than any other band** contribute to faster heat-up and through-put to increase productivity.
- **High thermal conductivity of MI** and low mass construction give almost instant response to temperature control. This performance solution eliminates thermal lag and temperature overshoot associated with ceramic knuckle heaters.



- **Stainless steel cover** as well as side fold design resist contamination by overflow of plastic or other free-flowing materials. Side folds turn to the inside diameter rather than the outside diameter.
- **Permanently attached clamp bars** eliminate cumbersome clamping straps, which makes installation easier.

Applications

- Extruders
- Blown film dies
- Injection molding machines
- Other cylinder heating applications

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Ultem® is a registered trademark of General Electric Corporation.

Peek® is a registered trademark of Greene, Tweed & Company.

Band Heaters

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Applications and Technical Data

The *Physical Limitations of Variations* table shows you the availability of widths, inside diameters and terminations for Watlow's MI Band heaters. To make sure the available terminations will meet your application needs, refer

to the illustrations of termination types on [page 17](#).

If you need to exceed limitations shown, contact your Watlow sales engineer or authorized distributor.

Physical Limitations of Variations

Widths inches (mm)	I.D. Available—inches (mm)						Available Terminations
	1 pc. Construction		Expandable		2 pc. Construction		
	Minimum inches (mm)	Maximum inches (mm)	Minimum inches (mm)	Maximum inches (mm)	Minimum inches (mm)	Maximum inches (mm)	
1 (25.4)	1 (25.4)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	14 (255.6)	All
1 3/8 (34.9)	1 (25.4)	3 (76.2)	3 (76.2)	6 (152.4)	3 (76.2)	6 (152.4)	All
1 1/2 (38.1)	1 (25.4)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All
2 (50.8)	1 1/4 (31.8)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All
2 1/2 (63.5)	1 1/4 (31.8)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All
3 (76.2)	1 1/4 (31.8)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All
3 1/2 (88.9)	1 1/4 (44.5)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All - Except 90° "B" Leads
4 (101.6)	2 (50.8)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All
4 1/2 (114.3)	2 1/4 (57.2)	14 (355.6)	3 (76.2)	14 (355.6)	3 (76.2)	28 (711.2)	All
5 (127.0)	2 1/2 (63.5)	14 (355.6)	3 (76.2)	14 (355.6)	4 (101.6)	28 (711.2)	All - Except 90° "B" Leads
5 1/2 (139.7)	2 3/4 (69.85)	14 (355.6)	3 (76.2)	14 (355.6)	4 (101.6)	28 (711.2)	Post Terminals, SLE
6 (152.4)	3 (76.2)	14 (355.6)	3 (76.2)	14 (355.6)	4 (101.6)	28 (711.2)	All
7 (177.8)	N/A	N/A	4 (101.6)	14 (355.6)	N/A	N/A	Post Terminals

General Limitations:

- Maximum width of 1 inch (25 mm) diameter heater is 1.5 inches wide (38 mm).
- Maximum heater width = 2x heater diameter
- Minimum I.D. for Type B, C, E and H leads = 1 inch (25 mm)
- Minimum I.D. for Type B—90 Degree leads = 1 1/4 inches (28 mm)
- Maximum lead amps: 8.5A per pair
- Maximum amps (post terminals): 30A per pair

Standard Gaps:

- ≤ 3 inches = 1/8 inch nominal
- 3 inches ≤ 6 inches = 1/4 inch nominal ± 1/8 inch
- 6 inches ≤ 14 inches = 3/8 inch nominal ± 1/8 inch
- > 14 inches = 1/2 inch nominal ± 1/4 inch

Band Heaters

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Applications and Technical Data

Calculating Watt Density

Watt density is the amount of wattage per square inch of heated area. To determine watt density, divide the total wattage by the heated area.

$$\text{Watt Density} = \frac{\text{Total Watts}}{\text{Heated Area}}$$

To apply this equation we must define the term "heated area."

Heated area is the total contact surface of the heater less areas of no heat that are found around terminals, mounting holes, etc.

$$\text{Heated Area} = \text{Total Contact Area} - \text{No-Heat Area}$$

To calculate the heated area:

1. Locate the **no-heat factor** from the chart below that corresponds

to the type of heater being considered.

2. To use the formula below, insert the no heat factors, diameter and width (in inches).

$$\text{Heated Area} = (3.14 \times \text{Diameter} - \text{No-Heat Factor}) \times \text{Width}$$

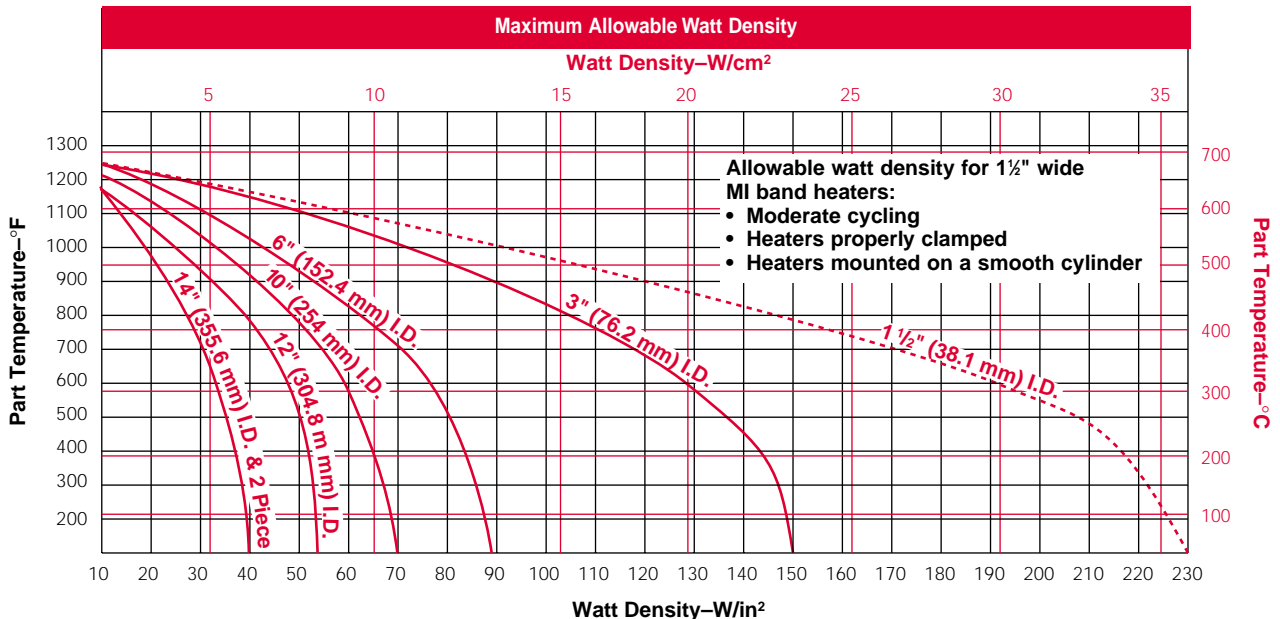
Type	Factor inch
1 pc. lead unit Type B, C, H, E or 90°B	1.37
1 pc. post terminal	1.60
2 pc. expandable post term	3.18
2 pc. expandable lead unit	3.00

Maximum Allowable Watt Density

The following derating factors apply to the *Maximum Allowable Watt Density* chart, which are shown in both inch base and metric for your convenience. Please review these factors and the chart to determine the correct watt density curve for your application.

Derating Factors:

- For units over two inches (51 mm) in width, multiply watt density by 0.8.
- In applications where unusual operating conditions are present, such as irregular mounting surfaces, contact the Watlow factory in St. Louis, Missouri, for watt density limitations.
- For two-piece units used in vertical applications, refer to *Clamping Matrix Application Guide*, [page 16](#).
- For applications where insulating blankets are used, multiply W/in² (W/cm²) by 0.75.



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Applications and Technical Data

- Review *Watt Density* chart on **page 15** to ensure that the application does not exceed the maximum watt density at operating temperature after applying derating factors.
- Locate clamping guideline for unit diameter, width and watt density.
- Description of guideline letters are at lower left of page.
- **Note:** Upward arrows are up to and not including specified watt density. Downward arrows are greater than or equal to specified watt density.

MI Band Clamping Matrix Application Guide

Watt Density - W/in ²	Dia. 8 ≥ 10		10 ≥ 12		12 ≥ 14		14 ≥ 16		16 ≥ 18		18 ≥ 20		20 ≥ 22		22 ≥ 24		24 ≥ 26		26 ≥ 28	
	Width 1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"	1 1/2" to 4"	4 1/2" to 7"
80																				
75																				
70																				
65																				
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45																				
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25																				
20																				
15																				
10																				
0																				

Above Recommended Watt Densities
Consult Engineering

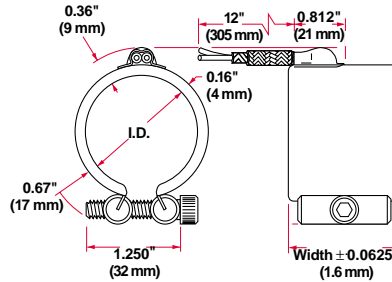
- | | | |
|--|----------------|---------------------------------|
| A = Standard clamping, expandable or one piece construction | Width | Clamp Points at Each Gap |
| B = Spring clamps, expandable or one piece construction | ≥ 5" (127 mm) | 3 |
| C = Spring clamps, at one gap, welded barrel nuts at other gap | ≥ 3" (76.2 mm) | 2 |
| D = Spring clamps, spring clamps at both gaps | < 3" (76.2 mm) | 1 |

Band Heaters

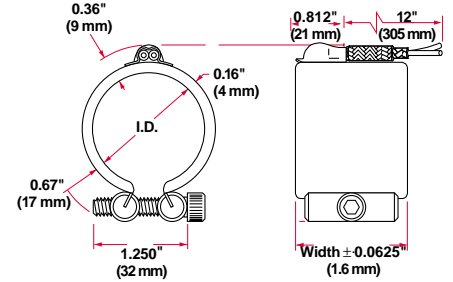
MI Barrel and Nozzle Termination Variations

Leads Type B, Type B—90 Degree Rotation, Type B—180 Degree Rotation or Type C: Two fiberglass-insulated lead wires exit in a single metal braid for good abrasion protection, lead flexibility and wiring convenience. Leads are two inches (51 mm) longer than braid. Shipped with 12 inch (305 mm) leads, unless longer length is specified. To order, specify **type** and **length**.

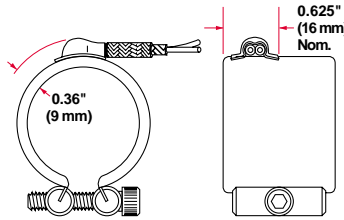
Type B
Stock



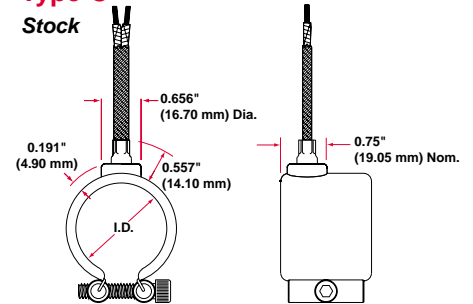
Type B—180 Degree Rotation
Stock



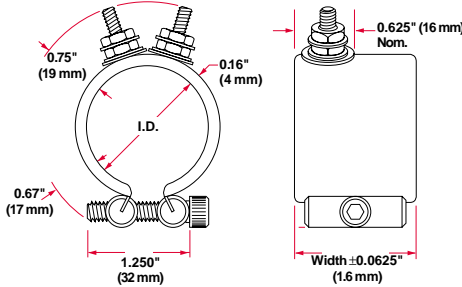
Type B—90 Degree Rotation
Non-Stock



Type C
Stock

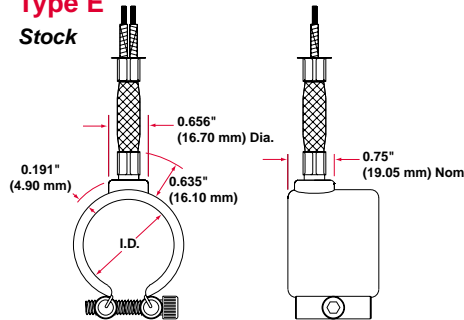


Post Terminals
Stock



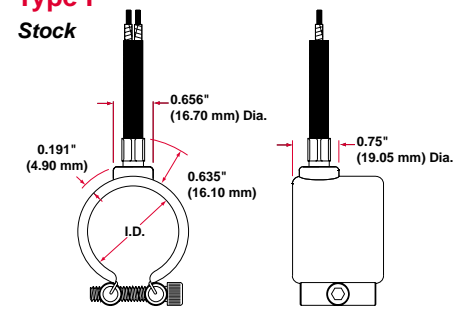
Post terminals provide optimum connections. Screw thread is 10-24. To order, specify **post terminals**.

Type E
Stock



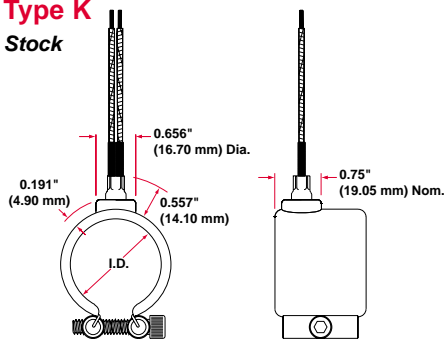
Type E: Loose metal braid encloses two fiberglass leads for good abrasion protection, lead flexibility and wiring convenience. Leads are two inches (51 mm) longer than braid. Shipped with 12 inch (305 mm) leads, unless longer length is specified. To order, specify **Type E** and **length**.

Type F
Stock



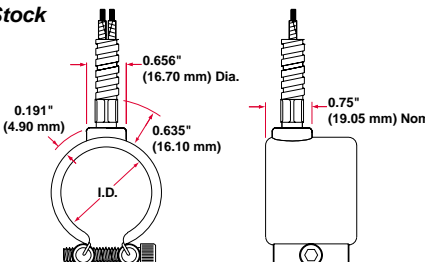
Type F: Loose fiberglass sleeving encloses two fiberglass leads for additional insulation protection where high temperature or minor abrasion is present. Leads are two inches (51 mm) longer than the sleeving. To order, specify **Type F** and **length**.

Type K
Stock



Type K: Flexible lead wires exit vertically from the heater. These leads can be bent adjacent to the heater for a quick and easy connection. To order, specify **Type K** and **length**.

Type H
Stock

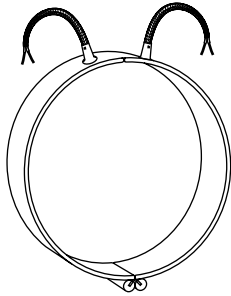
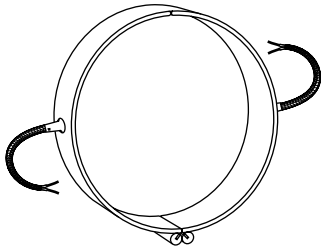
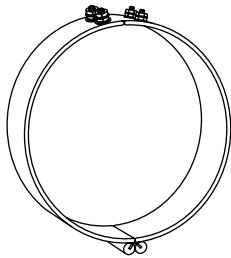


Type H: A flexible steel hose encloses the leads for maximum abrasion protection. Leads are two inches (51 mm) longer than hose. Shipped with 12 inch (305 mm) leads, unless longer length is specified. To order, specify **Type H** and **length**.

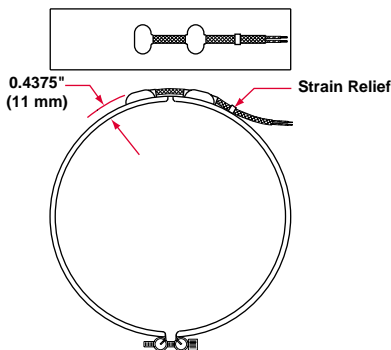
Band Heaters

MI Barrel and Nozzle

Variations



1½" (38 mm) wide and greater

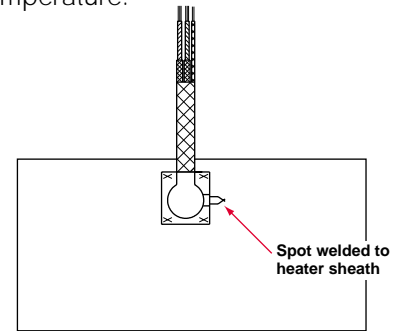


Lead Wire

Heaters rated at less than 250V~(ac) use UL® approved lead insulation for operations to 480°F (250°C) as standard. Lead insulation UL® rated for operation to 840°F (450°C) is available for high temperature applications where the leads are shrouded or enclosed with the heater. These leads are available in any of the Type B with loose braid, as well as Types E, F and H lead configurations. All heaters rated at more than 250V~(ac) use this wire. When ordering, specify **850°F (450°C) wire**.

Thermocouple

ASTM Type J or K internal thermocouples are available on lead Type B with loose braid. The thermocouple junction, which is welded inside the lead cap or spot-welded to heater sheath, provides a signal for measuring relative heater temperature.



Expandable Heaters With and Without Leads

Expandable heaters are two-piece units with a common top metal that allows the heater to expand open to the full diameter of the barrel. On expandable bands, each half will be one half of the total wattage. Plus, on both expandable and two-piece bands, each half will be rated at full operating voltage, unless otherwise specified.

MI Band heaters 1½ inches (38 mm) wide or greater will have post terminals located next to the expansion joint. Leads may be

located anywhere along the circumference except near the gap and at the expansion joint. Two sets of leads required.

On one inch (25 mm) wide

MI Band heaters, post terminals will be located 90 degrees from the expansion joint. Leads may be located anywhere along the circumference except near the gap and at the expansion joint. Two sets of leads required. To order, specify **expandable**.

Type SLE

Two fiberglass lead wires exit a single tightly woven metal braid at right angle on the expandable construction versus two sets of leads. Minimum diameter

capabilities is four inches (100 mm). Minimum width capabilities is 1½ inches (38 mm). To order, specify **Type SLE and length**.

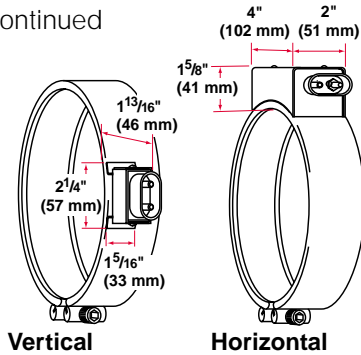
UL® is a registered trademark of Underwriter's Laboratories, Inc.

Band Heaters

MI Barrel and Nozzle

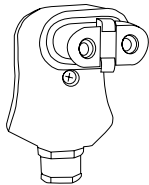
Variations

Continued



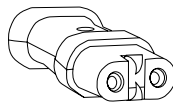
Vertical

Horizontal



Right Angle

Code# N6027AF049



Straight

Code# N6027ZZ028

High Temperature "Quick Disconnect" European Style Plugs

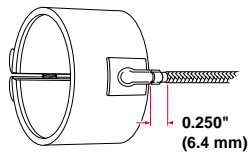
They provide the simplest and safest way to apply power to band heaters. The combination of high temperature male and female quick disconnect plug assemblies eliminates all live exposed terminals and electrical wiring that can be a

potential hazard to employees or machine. Maximum 15 amps at 240V~(ac), maximum volts 240. To order, specify **vertical** or **horizontal** European plug.

High Temperature "Quick Disconnect" European Style Female Adaptors

Available as an accessory item that must be used in conjunction with high temperature "quick disconnect" European style plugs.

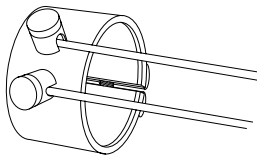
To order, specify code number **N2027AF049** or **N6027ZZ028** and quantity.



Heavy Duty Strain Relief

Heavy duty strain relief is recommended for applications where there is great stress or continued flexing of the leads. The strain relief is available on

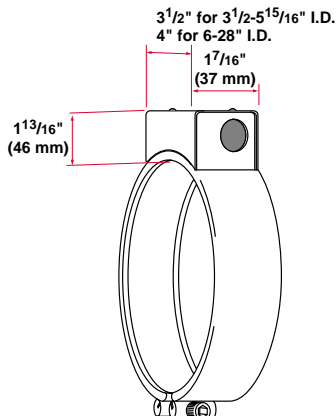
Type B, Type B—90 Degree and Type B—180 Degree leads only. To order, specify **heavy duty strain relief**.



Ceramic Terminal Cover

Ceramic covers, with openings for leads, are screwed on to post terminals, providing a convenient,

economical insulator. To order, specify code number **Z-4918** and **quantity**.



Metallic Terminal Box

Metallic terminal boxes are available from stock on 3 1/2 inches inside diameter x 1 1/2 inches wide (89 mm x 38 mm) or larger heaters. Terminal boxes, which attach directly to the heater, act as a safety feature by covering the terminals. Conduit may be attached to the box through 7/8 inch (22 mm) diameter holes in the ends

of the box. Two piece heaters require two boxes. To order, specify **terminal box**.

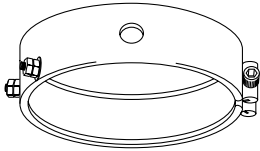
Oversized terminal boxes are available on heaters two inches (51 mm) and wider. Consult a Watlow representative.

Band Heaters

MI Barrel and Nozzle

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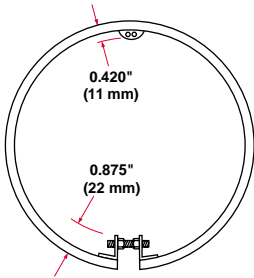
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MI Band Heater With Holes

MI Band heaters with holes are available on all widths except one inch wide. Consult the Watlow factory in St. Louis, Missouri for hole

sizes and location restraints. To order, specify **hole size** and **location**. Three inch inside diameter minimum.

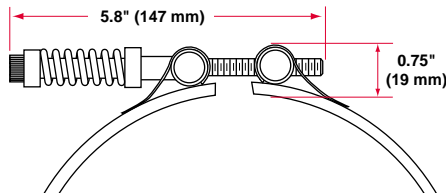


Outside Diameter Heater

Two fiberglass insulated lead wires rated to 840°F (450°C) exit a metal braid 180 degrees opposite from gap, Type B outside diameter

designed and constructed to mate with inside diameter of cylinders. To order, specify **outside diameter** heater.

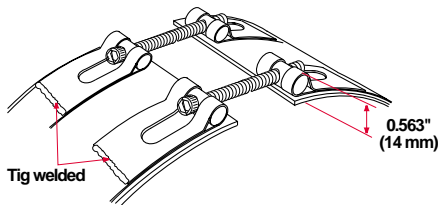
Clamping Variations



Tig Welded Barrel Nuts With Spring Loaded Clamping

Welded barrel nuts with spring loaded clamping are used during start-up to maintain a tight heater fit on large barrels. This clamping variation is standard for all MI Band heaters that are greater than 14 inches (355 mm) in diameter and

1½ inches (38 mm) or greater in width. Refer to MI Band *Clamping Matrix Application Guide*, page 16. For smaller diameter heaters, it is an option and must be ordered separately. To order, specify **spring loaded clamping**.



Tig Welded Barrel Nuts

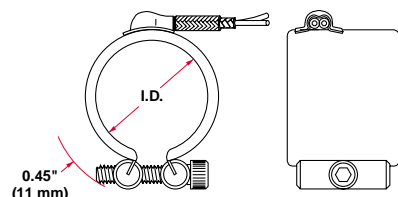
An ideal way to provide access for instrumentation is to specify an oversized gap between the heater ends. If the clamp bar screw interferes with the positioning of

the instrumentation device, welded barrel nuts are recommended. To order, specify **tig welded barrel nuts** and **gap dimension** when ordering.

Low Profile Tig Welded Barrel Nuts

Low profile barrel nuts are available on all widths. Low profile barrel nuts have a clearance of 0.406 inch

(10 mm). To order, specify **low profile tig welded barrel nuts**.



Low Profile Clamp Bars

Low profile clamp bars are available on both one (25 mm) and 1½ inch (38 mm) wide heaters, for wider widths consult factory. The bars are

¼ inch (6 mm) diameter with an 8-32 screw. To order, specify **low profile clamp bars**.

Band Heaters

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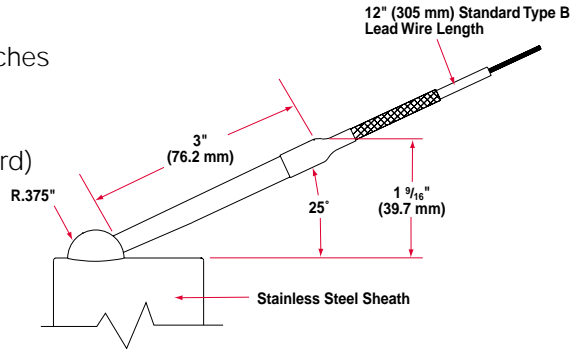
Sealed MI Nozzle Heater

Hermetically sealed tube construction makes this heater contamination proof and an excellent choice for a longer life in impure environments.

Sealed MI Stock Product

Non-Stock Options

- Leads greater than 12 inches (305 mm)
- Extended tube length (3 inch (76.2 mm) standard)
- 90° rotation Type B leads



I.D. inch (mm)	Width inch (mm)	Construction	Volts	Watts	Watt Density W/in ² (W/cm ²)	Termination	Approx. Net Wt. lbs. (kg)	Avail.	Code No.
1 (25.4)	1½ (38.1)	1pc	240	300	106 (16.4)	12" Type B	0.1 (0.05)	Stock	SMB1A1JN1-B12H
1 (25.4)	1½ (38.1)	1pc	120	300	106 (16.4)	12" Type B	0.1 (0.05)	Stock	SMB1A1JN2-B12H
1½ (38.1)	1 (25.4)	1pc	240	300	93 (14.4)	12" Type B	0.1 (0.05)	Stock	SMB1J1AN1-B12H
1½ (38.1)	1½ (38.1)	1pc	240	450	87 (13.5)	12" Type B	0.2 (0.09)	Stock	SMB1J1JN2-B12H
1½ (38.1)	1½ (38.1)	1pc	240	300	93 (14.4)	12" Type B	0.2 (0.09)	Stock	SMB1J1JN3-B12H
1½ (38.1)	2 (50.8)	1pc	240	450	57 (8.8)	12" Type B	0.3 (0.14)	Stock	SMB1J2AN1-B12H
1¾ (44.5)	1½ (38.1)	1pc	240	300	47 (7.3)	12" Type B	0.2 (0.09)	Stock	SMB1N1JN1-B12H
2 (50.8)	2 (50.8)	1pc	240	750	73 (11.3)	12" Type B	0.4 (0.18)	Stock	SMB2A2AN1-B12H

Note: Stock available with 12 inches of 450°C Type B leads.

MI Stock Product

F.O.B.: St. Louis, Missouri

I.D. in (mm)	Width in (mm)	Construction	Volts	Watts	Watt Density W/in ² (W/cm ²)	Termination	Approx. Net Wt. lbs (kg)	Avail.	Code No.
1 (25.4)	1 (25.4)	1pc	120	100	61 (9.4)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1AN2
	1 (25.4)	1pc	120	150	92 (14.2)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1AN1
	1 (25.4)	1pc	120	200	122 (18.9)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1AN3
	1 (25.4)	1pc	240	200	122 (18.9)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1AN4
	1½ (38.1)	1pc	120	200	70 (10.8)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1JN4
	1½ (38.1)	1pc	240	200	70 (10.8)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1JN3
	1½ (38.1)	1pc	120	300	106 (16.4)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1JN2
	1½ (38.1)	1pc	240	300	106 (16.4)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1JN1
	1½ (38.1)	1pc	240	400	141 (21.8)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1JN5
	1½ (38.1)	1pc	240	400	141 (21.8)	Type B,C,E or H	0.1 (0.05)	Stock	MB1A1JN6
1¾ (31.8)	1 (25.4)	1pc	120	250	104 (16.1)	Type B,C,E or H	0.1 (0.05)	Stock	MB1E1AN2
	1 (25.4)	1pc	240	250	104 (16.1)	Type B,C,E or H	0.1 (0.05)	Stock	MB1E1AN1
	1 (25.4)	1pc	240	300	124 (19.2)	Type B,C,E or H	0.1 (0.05)	Stock	MB1E1AN3
	1½ (38.1)	1pc	120	350	87 (13.5)	Type B,C,E or H	0.2 (0.09)	Stock	MB1E1JN2
	1½ (38.1)	1pc	240	350	87 (13.5)	Type B,C,E or H	0.2 (0.09)	Stock	MB1E1JN1
	1½ (38.1)	1pc	240	450	112 (17.3)	Type B,C,E or H	0.2 (0.09)	Stock	MB1E1JN3
1½ (38.1)	1 (25.4)	1pc	120	200	62 (9.6)	Type B,C,E or H	0.1 (0.05)	Stock	MB1J1AN4
	1 (25.4)	1pc	240	200	62 (9.6)	Type B,C,E or H	0.1 (0.05)	Stock	MB1J1AN3
	1 (25.4)	1pc	120	300	93 (14.4)	Type B,C,E or H	0.1 (0.05)	Stock	MB1J1AN2
	1 (25.4)	1pc	240	300	93 (14.4)	Type B,C,E or H	0.1 (0.05)	Stock	MB1J1AN1
	1 (25.4)	1pc	240	400	125 (19.3)	Type B,C,E or H	0.1 (0.05)	Stock	MB1J1AN5
	1½ (38.1)	1pc	120	300	58 (9.0)	Type B,C,E or H	0.2 (0.09)	Stock	MB1J1JN1
	1½ (38.1)	1pc	240	300	58 (9.0)	Type B,C,E or H	0.2 (0.09)	Stock	MB1J1JN3
	1½ (38.1)	1pc	240	300	64 (10.0)	Post	0.2 (0.09)	Stock	MB1J1JP4
	1½ (38.1)	1pc	240	450	87 (13.5)	Type B,C,E or H	0.2 (0.09)	Stock	MB1J1JN2
	1½ (38.1)	1pc	240	450	96 (14.8)	Post	0.2 (0.09)	Stock	MB1J1JP6
	1½ (38.1)	1pc	240	600	116 (17.9)	Type B,C,E or H	0.2 (0.09)	Stock	MB1J1JN4
	2 (50.8)	1pc	240	300	42 (6.5)	Type B,C,E or H	0.3 (0.14)	Stock	MB1J2AN2
	2 (50.8)	1pc	240	450	57 (8.8)	Type B,C,E or H	0.3 (0.14)	Stock	MB1J2AN1
	2 (50.8)	1pc	240	900	125 (19.3)	Type B,C,E or H	0.3 (0.14)	Stock	MB1J2AN3
	3 (76.2)	1pc	240	350	31 (4.8)	Type B,C,E or H	0.4 (0.18)	Stock	MB1J3AN2
3 (76.2)	1pc	240	500	45 (7.0)	Type B,C,E or H	0.4 (0.18)	Stock	MB1J3AN1	
3 (76.2)	1pc	240	1000	104 (16.1)	Type B,C,E or H	0.4 (0.18)	Stock	MB1J3AN3	

CONTINUED

Band Heaters

F.O.B.: St. Louis, Missouri

MI Barrel and Nozzle

I.D. in (mm)	Width in (mm)	Construction	Volts	Watts	Watt Density W/in ² (W/cm ²)	Termination	Approx. Net. Wt. lbs (kg)	Avail.	Code No.
1½ (44.5)	1½ (38.1)	1pc	120	300	50 (7.7)	Type B,C,E or H	0.2 (0.09)	Stock	MB1N1JN2
	1½ (38.1)	1pc	240	300	47 (7.3)	Type B,C,E or H	0.2 (0.09)	Stock	MB1N1JN1
	1½ (38.1)	1pc	240	700	110 (17.0)	Type B,C,E or H	0.2 (0.09)	Stock	MB1N1JN3
	2 (50.8)	1pc	240	750	86 (13.3)	Type B,C,E or H	0.3 (0.14)	Stock	MB1N2AN1
2 (50.8)	1 (25.4)	1pc	120	350	73 (11.3)	Type B,C,E or H	0.2 (0.09)	Stock	MB2A1AN2
	1 (25.4)	1pc	240	350	73 (11.3)	Type B,C,E or H	0.2 (0.09)	Stock	MB2A1AN1
	1 (25.4)	1pc	240	450	94 (14.5)	Type B,C,E or H	0.2 (0.09)	Stock	MB2A1AN3
	1½ (38.1)	1pc	240	400	53 (8.2)	Type B,C,E or H	0.3 (0.14)	Stock	MB2A1JN1
	1½ (38.1)	1pc	240	1000	132 (20.4)	Type B,C,E or H	0.3 (0.14)	Stock	MB2A1JN2
	2 (50.8)	1pc	240	750	73 (11.3)	Type B,C,E or H	0.4 (0.18)	Stock	MB2A2AN1
	2 (50.8)	1pc	240	1200	125 (19.3)	Type B,C,E or H	0.4 (0.18)	Stock	MB2A2AN2
	2½ (57.2)	2½ (63.5)	1pc	240	1000	72 (11.2)	Type B,C,E or H	0.5 (0.23)	Stock
2½ (63.5)	1 (25.4)	1pc	240	400	63 (9.7)	Type B,C,E or H	0.2 (0.09)	Stock	MB2J1AN1
	1½ (38.1)	1pc	240	500	50 (7.7)	Type B,C,E or H	0.4 (0.18)	Stock	MB2J1JN1
3 (76.2)	1 (25.4)	1pc	240	400	54 (8.4)	Post	0.3 (0.14)	Stock	MB3A1AP1
	1½ (38.1)	1pc	240	500	40 (6.2)	Post	0.4 (0.18)	Stock	MB3A1JP1
	1½ (38.1)	2pc exp	230/460	525	53 (8.2)	Post	0.4 (0.18)	Stock	MB3A1JP10
3½ (88.9)	2 (50.8)	1pc	240	800	42 (6.5)	Post	0.7 (0.32)	Stock	MB3J2AP2
3½ (92.1)	1½ (38.1)	2pc exp	230/460	650	51 (7.9)	Post	0.5 (0.23)	Stock	ME3L1JP5
4 (101.6)	1 (25.4)	1pc	240	700	62 (9.6)	Post	0.4 (0.18)	Stock	MB4A1AP1
	1½ (38.1)	2pc exp	230/460	625	43 (6.7)	Post	0.6 (0.27)	Stock	ME4A1JP11
	1½ (38.1)	2pc exp	230/460	725	50 (7.8)	Post	0.6 (0.27)	Stock	ME4A1JP12
	1½ (38.1)	1pc	240	800	48 (7.4)	Post	0.6 (0.27)	Stock	MB4A1JP2
4½ (114.3)	2½ (63.5)	1pc	240	1250	40 (6.2)	Post	1.0 (0.45)	Stock	MB4J2JP1
5 (127.0)	1½ (38.1)	2pc exp	240/480	1000	52 (8.1)	Post	0.8 (0.36)	Stock	ME5A1JP8
5½ (133.4)	1½ (38.1)	2pc exp	230/460	600	29 (4.5)	Post	0.7 (0.32)	Stock	ME5E1JP9
	1½ (38.1)	2pc exp	240/480	1000	48 (7.4)	Post	0.8 (0.36)	Stock	ME5E1JP1
	3 (76.2)	2pc exp	230/460	1700	40 (6.2)	Post	1.5 (0.68)	Stock	ME5E3AP5
	4½ (114.3)	2pc exp	230/460	2400	38 (5.9)	Post	2.2 (1.0)	Stock	ME5E4JP2
	4½ (114.3)	2pc exp	230/460	2700	43 (6.6)	Post	2.2 (1.0)	Stock	ME5E4JP3
5½ (139.7)	1½ (38.1)	2pc exp	240/480	1000	46 (7.1)	Post	0.9 (0.40)	Stock	ME5J1JP1
6 (152.4)	1½ (38.1)	2pc exp	240/480	1000	41 (6.4)	Post	0.9 (0.40)	Stock	ME6A1JP2
6½ (165.1)	1½ (38.1)	2pc exp	240/480	1250	47 (7.3)	Post	1.0 (0.45)	Stock	ME6J1JP5
6½ (171.5)	1½ (38.1)	2pc exp	230/460	815	29 (4.5)	Post	0.9 (0.40)	Stock	ME6N1JP6
	1½ (38.1)	2pc exp	230/460	1000	36 (5.6)	Post	0.9 (0.40)	Stock	ME6N1JP7
	4 (101.6)	2pc exp	230/460	2600	35 (5.4)	Post	2.5 (1.1)	Stock	ME6N4AP2
	5 (127.0)	2pc exp	230/460	3700	40 (6.2)	Post	3.2 (1.5)	Stock	ME6N5AP3
	6 (152.4)	2pc exp	230/460	3750	33 (5.1)	Post	3.8 (1.7)	Stock	ME6N6AP5
	7 (177.8)	1½ (38.1)	2pc exp	240/480	1250	43 (6.6)	Post	1.1 (0.50)	Stock
7½ (190.5)	1½ (38.1)	2pc exp	240/480	1500	47 (7.3)	Post	1.1 (0.50)	Stock	ME7J1JP4
7½ (193.7)	3 (76.2)	2pc exp	230/460	1800	28 (4.3)	Post	2.2 (1.0)	Stock	ME7L3AP1
8 (203.2)	1½ (38.1)	2pc exp	240/480	1250	37 (5.7)	Post	1.2 (0.54)	Stock	ME8A1JP4
9 (228.6)	1½ (38.1)	2pc exp	240/480	1500	39 (6.0)	Post	1.4 (0.64)	Stock	ME9A1JP1
9½ (241.3)	3 (76.2)	2pc exp	230/460	3000	37 (5.7)	Post	2.6 (1.2)	Stock	ME9J3AP2
11½ (285.8)	3 (76.2)	2pc exp	230/460	2400	24 (3.7)	Post	3.2 (1.5)	Stock	ME11E3AP2
	5 (127.0)	2pc exp	230/460	5100	31 (4.8)	Post	5.2 (2.4)	Stock	ME11E5AP1

How to Order

To order your stock MI Band heater, specify:

- Quantity
- Watlow code number
- Options
- Lead type and length, or terminal type configuration (If code number has an "N" as the

last letter in the code, you must specify termination type and lead length. Twelve inch leads will be supplied if not otherwise specified.)

Availability

Stock: Same day shipment on MI Band heaters with post terminals or 12 inch (305 mm) Type B leads.

Longer lead lengths or other terminations will ship next day.

Made-to-Order: If stock units do not meet application needs, Watlow can manufacture MI Band heaters to special requirements. Please consult a Watlow sales engineer or authorized distributor.