# **Band Heaters**

## **Mi-Plus Specifications**



### **Mi-Plus® Standard Specifications and Tolerances**

#### PERFORMANCE RATINGS

Maximum Temperature: 1400°F (760°C) Nominal Watt Density: Nozzle Bands — under 3" diameter: 30-100 W/in<sup>2</sup> (4.7-15.5 W/cm<sup>2</sup>) Barrel bands—3" and greater in diameter: 20-70 W/in<sup>2</sup> (3.1-10.9 W/cm<sup>2</sup>)

**Maximum Watt Density:** 150 W/in<sup>2</sup> (23 W/cm<sup>2</sup>) Dependent on heater size, operating temperature and termination.

#### **ELECTRICAL RATINGS**

Maximum Voltage: 480VAC per termination Dual Voltage: Available depending on heater configuration Maximum Amperage: lead wire termination: 12.5A screw terminations: 8-32UNF-20A 10-32UNF-25A

**Resistance Tolerance:** +10%, -5%**Wattage Tolerance:** +5%, -10%



Exposed electrical wiring on band heater installations is a violation of Electrical Safety Codes including O.S.H.A.

#### PHYSICAL SIZE CONSTRUCTION LIMITATIONS

#### Nominal Gap-Built-In Bracket:

less than 1-3/4" dia	. 1/4"
1-3/4" to 2" dia	. 5/16"
2" to 5" dia	. 3/8"
5" to 18" dia	. 1/2"
greater than 18" dia	. 3/4"

If a larger gap is required for probes or thermocouples, specify when ordering.

#### **Maximum Inside Diameters:**

**Standard Widths:** 1" to 8" (25.4 mm to 203.2 mm) **Width Tolerance:** ±3/32" (2.4 mm)

## If non-standard widths or tighter tolerances are required, consult Tempco.

#### **Diameter/Width Limitations**

		One-Piece Construction		Expandable Construction		Two-Piece Construction	
Width		Inside Diameter		Inside Diameter		Inside Diameter	
in	mm	in	mm	in	mm	in	mm
1	25.4	1 to 10	25.4 to 254.0	N/A	N/A	3 to 25	76.2 to 635.0
11/2	38.1	1 to 14	25.4 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
2	50.8	$1\frac{1}{2}$ to 14	38.1 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
21/2	63.5	$1\frac{1}{2}$ to 14	38.1 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
3	76.2	$1\frac{1}{2}$ to 14	38.1 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
31/2	88.9	1 <sup>3</sup> ⁄ <sub>4</sub> to 14	44.5 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
4	101.6	2 to 14	50.8 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
4½	114.3	$2\frac{1}{4}$ to 14	57.2 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
5	127.0	$2\frac{1}{2}$ to 14	63.5 to 355.6	$2\frac{1}{2}$ to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
51/2	139.7	$2\frac{3}{4}$ to 14	69.9 to 355.6	3 to 14	63.5 to 355.6	3 to 25	76.2 to 635.0
6	152.4	3 to 14	76.2 to 355.6	3 to 14	76.2 to 355.6	3 to 25	76.2 to 635.0
6½	165.1	$3\frac{1}{4}$ to 14	82.6 to 355.6	$3\frac{1}{4}$ to 14	82.6 to 355.6	$3\frac{1}{4}$ to 25	82.6 to 635.0
7	177.8	$3\frac{1}{2}$ to 14	88.9 to 355.6	$3\frac{1}{2}$ to 14	88.9 to 355.6	3½ to 25	88.9 to 635.0
7½	190.5	$3\frac{3}{4}$ to 14	95.3 to 355.6	$3\frac{3}{4}$ to 14	95.3 to 355.6	3 <sup>3</sup> / <sub>4</sub> to 25	95.3 to 635.0
8	203.2	4 to 14	101.6 to 355.6	4 to 14	101.6 to 355.6	4 to 25	101.6 to 635.0

#### **Additional Limitations**

- For heaters less than 4" in diameter, the maximum width is twice the diameter.
- Heaters with standard brackets are available from 1" to 8" wide, while heaters with low profile brackets are available from 1" to 6" wide.
- 1" diameter heaters are only available in 1" and 1-1/2" widths.
- For heaters from 10" diameter up to 25" diameter, Tempco recommends using 2-piece construction for superior clamping. Over 25" diameter, 3 or 4 segments are recommended.
- Combinations of some minimum and maximum variations may not be available. Consult Tempco with your special requirements.
- Post terminals are only available on heaters greater than 2-1/2" in diameter and 1-1/2" in width.