



## 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: 10A  
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:**

- One-Piece . . . . . \*14" (355.6 mm)
- One-Piece Expandable .. \*14" (355.6 mm)
- Two-Piece . . . . . 25" (635.0 mm)
- Over 25" (635.0 mm) will require multiple segments. Consult Tempco.

\* Tempco recommends two-piece construction for heaters 10" ID and greater

**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

| Width |       | One-Piece Construction<br>Inside Diameter |                | Expandable Construction<br>Inside Diameter |                | Two-Piece Construction<br>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  |
| 1½    | 38.1  | 1 to 14                                   | 25.4 to 355.6  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 2     | 50.8  | 1½ to 14                                  | 38.1 to 355.6  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 2½    | 63.5  | 1½ to 14                                  | 38.1 to 355.6  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 3     | 76.2  | 1½ to 14                                  | 38.1 to 355.6  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 3½    | 88.9  | 1¾ to 14                                  | 44.5 to 355.6  | 2½ 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  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 4½    | 114.3 | 2¼ to 14                                  | 57.2 to 355.6  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 5     | 127.0 | 2½ to 14                                  | 63.5 to 355.6  | 2½ to 14                                   | 63.5 to 355.6  | 3 to 25                                   | 76.2 to 635.0  |
| 5½    | 139.7 | 2¾ 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 | 3¼ to 14                                  | 82.6 to 355.6  | 3¼ to 14                                   | 82.6 to 355.6  | 3¼ to 25                                  | 82.6 to 635.0  |
| 7     | 177.8 | 3½ to 14                                  | 88.9 to 355.6  | 3½ to 14                                   | 88.9 to 355.6  | 3½ to 25                                  | 88.9 to 635.0  |
| 7½    | 190.5 | 3¾ to 14                                  | 95.3 to 355.6  | 3¾ to 14                                   | 95.3 to 355.6  | 3¾ 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.