

## Ceramic Band Specifications

### Ceramic Band Standard Specifications and Tolerances

#### PERFORMANCE RATINGS

**Maximum Temperature:** 1400°F (760°C)  
**Nominal Watt Density:** 20-45 W/in<sup>2</sup> (3-7 W/cm<sup>2</sup>)  
**Maximum Watt Density:** 45 W/in<sup>2</sup> (7 W/cm<sup>2</sup>)

#### ELECTRICAL RATINGS

**Maximum Voltage:** 480 VAC per termination  
**Dual Voltage:** Available depending on heater configuration  
**Maximum Amperage per circuit:**  
 lead wire termination: 12.5 amp  
 screw terminations: 25 amp  
**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

**Sheath Material:** Stainless Steel  
**Insulation Material:** Ceramic Fiber Blanket  
 Standard Thickness: 1/4" (6.4 mm)  
 Double Thickness: 1/2" (12.7 mm)

#### Overall Thickness:

Insulation Type	Dia. less than 4"		Dia. 4" or greater	
	Standard		Standard	Optional
Standard	1/2" (12.7 mm)		5/8" (15.9 mm)	1/2" (12.7 mm)
Double	11/16" (17.5 mm)		3/4" (19.1 mm)	11/16" (17.5 mm)
Ribcage (Uninsulated)	11/32" (8.7 mm)		1/2" (12.7 mm)	11/32" (8.7 mm)

**Minimum Width:** 1" (25.4 mm)

**Standard Width Increments:** 1/8" (3.2 mm)  
 Consult Tempco for non-standard widths.

#### Maximum Width:

##### One-Piece & Two-Piece:

Dependent upon the ratio of diameter to width  
 Maximum Width to Diameter Ratio is 3:1  
 Maximum Width for 5" or greater ID is 15"

**Reverse Band:** 4" (101.6 mm)

#### Width Tolerance:

1" (25.4 mm) to 3-1/2" (88.9 mm): ±1/16" (±1.6 mm)  
 4" (101.8 mm) to 6-1/2" (165.1 mm): ±1/8" (±3.2 mm)  
 Over 6-1/2" (165.1 mm): ±1/4" (6.4 mm)

#### Minimum Diameter:

**One-Piece:** 2" (50.8 mm)  
**Two-Piece:** 4" (101.6 mm)  
**Reverse Band:** 5-1/2" (139.7 mm)

#### Maximum Diameter

**One-Piece:** 21" (533.4 mm)  
**Two-Piece & Reverse Band:** 44" (1,117.6 mm)

**Nominal Gap:** 3/8" (9.5 mm) — If a larger gap is required for probes or thermocouples, specify when ordering.

*If tighter tolerances are required consult Tempco.*

Construction Clamp	Min. ID		Min. Width		Max. ID	
	in	mm	in	mm	in	mm
One-Piece	2	50.8	1	25.4	21	533.4
Two-Piece	4	101.6	1	25.4	44	1117.6
Reverse Band	5.5	139.7	1	25.4	44	1117.6
Standard Insulation	2	50.8	1	25.4		N/A
Double Insulation	2	50.8	1	38.1		N/A
Rib Cage (RCC)	3	76.2	1	114.3		N/A
Built-In Bracket	2	50.8	1	25.4		N/A
Built-In Bracket Spring Loaded	2	50.8	1	25.4		N/A
Latch and Trunnion	4	101.6	1	25.4		N/A
Bent-Up Flange	2	50.8	1	25.4		N/A
Shell Overlap	3	76.2	1	38.1	20	508.0



**Note:** Refer to individual construction and termination descriptions on pages 1-66 through 1-74 for further information. Actual heater minimums and maximums will depend upon the combination of construction/clamp, termination styles and electrical ratings.