



## METRIC SIZES

# Hi-Density

## CARTRIDGE HEATERS

**Standard Specifications and Tolerances** of Hi-Density Cartridge Heaters in **Metric** sizes. If tighter tolerances are required consult Tempco.

### LEAD LENGTH TOLERANCE

Up to 1000 mm: -15/+40 mm  
 1000 mm to 2000 mm: -25/+50 mm  
 Above 2000 mm: ±100 mm

### DIMENSIONAL SPECIFICATIONS

Nominal Diameter	6.5		8		10		12.5		16		20	
	mm	(in)	mm	(in)	mm	(in)	mm	(in)	mm	(in)	mm	(in)
Actual Diameter	6.43	(.253)	7.92	(.312)	9.93	(.391)	12.42	(.489)	15.93	(.627)	19.91	(.784)
Actual Diameter Tolerance	±.05 mm (±.002")											
Minimum Length	25.4	(1)	25.4	(1)	25.4	(1)	25.4	(1)	25.4	(1)	31.75	(1-1/4)
Maximum Length	914	(36)	914	(36)	1219	(48)	1524	(60)	1829	(72)	1829	(72)
Length Tolerance												
Heaters up to 127 mm (5") long	±2.4	(3/32)	±2.4	(3/32)	±2.4	(3/32)	±2.4	(3/32)	±2.4	(3/32)	±3.2	(1/8)
Length Tolerance Heaters over 127 mm (5") long	±2% of Sheath Length											
Camber Tolerance												
Heaters up to 152 mm (6") long	0.13 mm (0.005")											
Camber Tolerance Heaters over 152 mm (6") long	0.50 mm (0.020") per 305 mm (12") of length (0.5 x (length in mm/305) <sup>2</sup> )											

With some force, Tempco Hi-Density Cartridge Heaters will normally flex enough to fit into a straight reamed hole.

### ELECTRICAL SPECIFICATIONS

Nominal Diameter	6.5	8	10	12.5	16	20
Maximum Voltage	260	260	260	380	480*	480*
Maximum Amperage (see next line for exceptions)	4.4	4.4	6.7	10.5	23	23
†Maximum Amperage for Types C1C, C1D, C2C, C2D, CS, F, M3, R1B, S1B, S2B, SA, W, & W3 & Terminations	3.0	3.0	5.5	7.6	9.7	9.7
Maximum Wattage at 260V	1140	1150	1740	2730	5980	5980
Maximum Wattage at 380V	—	—	—	3990	8740	8740
Maximum Wattage at 480V	—	—	—	—	10,580	10,580
Wattage Tolerance	Plus 5%, Minus 10%					
Resistance Tolerance	Plus 10%, Minus 5%					

\*480V when applicable. Consult Tempco.

†Current carrying capacities are for ambient temperatures up to 482°F (250°C) with mica insulated lead wires.