



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 | |
|---|---|--------|------|--------|------|--------|-------|--------|-------|--------|-------|---------|
| Nominal Diameter Tolerance | -.02 mm, -.08 mm (-.0008", -.0031") | | | | | | | | | | | |
| | mm | (in) | mm | (in) | mm | (in) | mm | (in) | mm | (in) | mm | (in) |
| Actual Diameter | 6.45 | (.254) | 7.95 | (.313) | 9.95 | (.392) | 12.45 | (.490) | 15.95 | (.628) | 19.95 | (.785) |
| Actual Diameter Tolerance | ±.03 mm (±.0012") | | | | | | | | | | | |
| 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 to 305 mm (12") long | .25 mm (.010") per 305 mm (12") of length | | | | | | | | | | | |
| Camber Tolerance Heaters over 305 mm (12") long | .50 mm (.020") per 305 mm (12") of length | | | | | | | | | | | |

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 | 460* | 460* |
| Maximum Amperage (see next line for exceptions) | 4.4 | 4.4 | 6.7 | 10.5 | 23 | 23 |
| †Maximum Amperage for Types F, F1, W, W3, M3, S1 and S2 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 460V | — | — | — | — | 10,580 | 10,580 |
| Wattage Tolerance | Plus 5%, Minus 10% | | | | | |
| Resistance Tolerance | Plus 10%, Minus 5% | | | | | |

*460V when applicable. Consult Tempco.

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