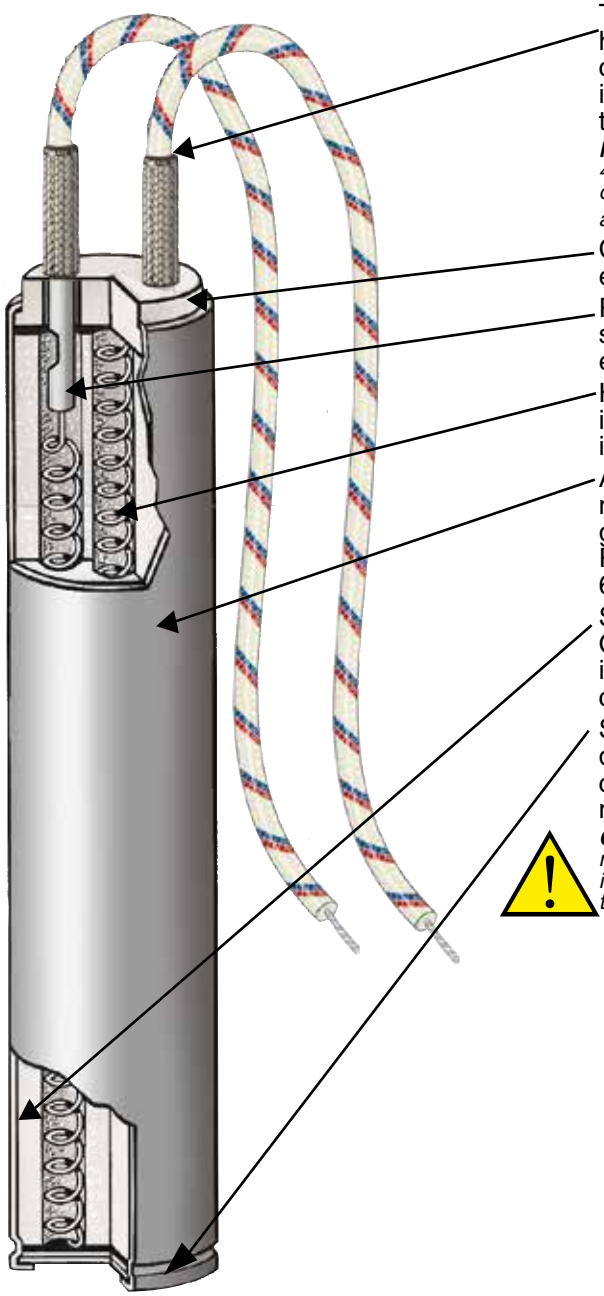
Low Density Cartridge Heaters

LDC Series

An Economical and Reliable Cartridge Heater for Applications Where Lower Operating Temperatures and Watt Densities May be Used.



The standard termination for low-density cartridge heaters is Type F, consisting of 254 mm (10") internally connected flexible lead wires with high-temperature insulation, UL approved for 300 or 600V service with a temperature rating of 250°C (482°F).

Note: *To meet the requirements of your application we offer over 40 standard termination styles to select from that will solve many of the most common application problems. Consult Omega for available options.*

Ceramic end cap protects the cartridge heater from external contamination.

Resistance wire and lead wires are mechanically spliced with heavy wall nickel connectors for a positive electrical connection.

Helically wound Nickel-Chrome resistance wire is evenly stretched and strung through ceramic insulators.

Alloy 304 Stainless Steel (Nickel-Chromium) sheath material is used to provide high-temperature strength, good thermal conductivity and resistance to oxidation. Recommended maximum sheath temperature is 650°C (1200°F).

Specially selected grain size high purity magnesium Oxide (MgO) is used to fill all remaining space inside the ceramic insulator, thus increasing thermal conductivity, dielectric strength and heater life.

Sheath is roll crimped over a 304 stainless steel end disc. A mica spacer electrically insulates the heater core from the end disc. This style end seal is not moisture proof.

Caution: *Since the end seal of the standard LDC Series heaters is not moisture proof, these products are not recommended for direct immersion in a liquid heating application. Install heater in a liquid-tight sleeve.*

Typical Applications

- Heat Sealing Equipment
- Laminating Equipment
- Packaging Equipment
- Labeling Machines
- Molds and Dies
- Food Processing
- Refrigeration
- Shoe Machinery
- Glue Guns
- Wax Pots
- Heating Gases

Low-density cartridge heaters are an excellent, cost-effective choice without compromising quality for Original Equipment Manufacturers (OEM's) consuming large quantities of cartridge heaters for their equipment.

Specifications and Tolerances

Performance Ratings
Maximum Sheath Temperature: 650°C (1200°F) Maximum Watt
Density: 3.1 to 7.0 Watt/cm^2 (20 to 45 Watt/in^2) depending on heater size and operating temperature

Dimensional Specifications

Nominal Diameter	3/16	1/4	3/8	1/2	5/8	3/4	7/8	15/16	1	1 1/4
Actual Dia. mm (inch)	4.70 (0.185)	6.27 (0.247)	9.45 (0.372)	12.60 (0.496)	15.77 (0.621)	18.92 (0.745)	22.10 (0.870)	23.70 (0.933)	25.27 (0.995)	31.75 (1.250)
Diameter Tolerance	0.051 mm (±0.002")									0.127 (±0.005)
Length Tolerance	1.59 mm (±1/16") up to 152 mm (6") long; 3.18 mm (±1/8") over 152 mm (6") long									
Camber Tolerance	0.254 mm (0.010") per foot of length									

Electrical Specifications

Nominal Dia.	3/16	1/4	3/8	1/2	5/8	3/4	7/8	15/16	1	1 1/4
Maximum Voltage	240				480**					
Maximum Amperage	1.5	3.5	6	8	10	15	15	15	25	30
Maximum Wattage	Contact Omega									
Wattage Tolerance	Plus 5%, minus 10%									
Resistance Tolerance	Plus 10%, minus 5%									

**Low density cartridge heaters are UL recognized and CSA certified in many design variations under UL File Number E65652 and CSA File Number 043099.*
If you require UL and/or CSA Agency Approval, please specify when ordering.
***480V when applicable. Contact Omega.*