

An Economical and Reliable Cartridge Heater, Used in Applications Requiring Lower Operating Temperatures and Watt Densities

LDC Series



Typical Applications

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

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

Standard Specifications and Tolerances

Performance Ratings

Maximum Temperature: 650°C (1200°F)

Maximum Watt Density: 3.1 to 7.0 Watt/cm² (20 to 45 Watt/in²) depending on heater size and operating temperature

Dimensional Specifications

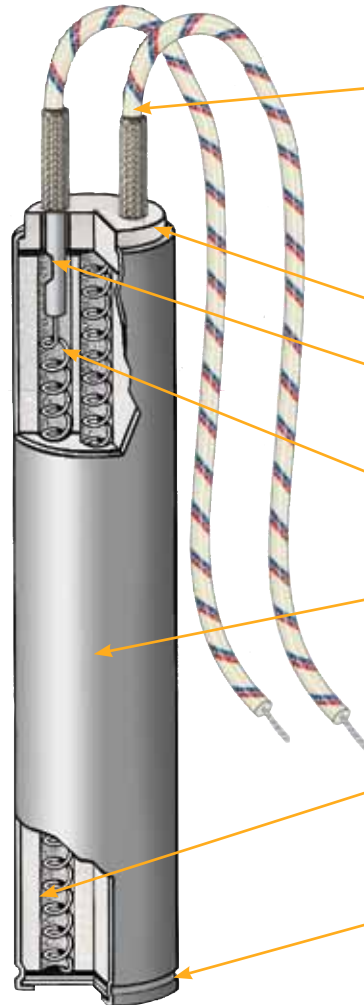
Nominal Diameter	3/16	1/4	3/8	1/2	5/8	3/4	7/8	15/16	1	1 1/4
Actual Diameter inch	0.185	0.247	0.372	0.496	0.621	0.745	0.870	0.933	0.995	1.250
Actual Diameter mm	4.70	6.27	9.45	12.60	15.77	18.92	22.10	23.70	25.27	31.75
Diameter Tolerance	0.051 mm (±0.002")									0.127 mm (±0.005")
Length Tolerance	1.59 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 Diameter	3/16	1/4	3/8	1/2	5/8	3/4	7/8	15/16	1	1 1/4
Maximum Voltage	240	240	240	240	480**	480**	480**	480**	480**	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.



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 and temperature rated to 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.

Ceramic end cap protects the cartridge internally from outside 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 is used to provide high temperature strength, good thermal conductivity and resistance to oxidation up to 650°C (1200°F). Alloy 304 is a Nickel-Chromium stainless steel. For immersion heating of corrosive solutions contact OMEGA.

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.



Low Density Cartridge Heaters

3/4" Diameter, Actual 18.92 mm (0.745")

To Order Visit omega.com/ldc6 for Pricing and Details

Model No.		Sheath Length		Watts	Watt Density	
120V	240V	mm	inch		Watt/cm ²	Watt/in ²
LDC00255	LDC00256	76.2	3	225	5.9	38
LDC00257	LDC00258	88.9	3½	225	4.9	32
LDC00259	LDC00260	88.9	3½	250	5.5	35
LDC00261	LDC00262	101.6	4	300	5.6	36
LDC00263	LDC00264	127.0	5	350	5.1	33
LDC00265	LDC00266	152.4	6	170	2.0	13
LDC00267	LDC00268	152.4	6	350	4.2	27
LDC00269	LDC00270	152.4	6	400	4.8	31
LDC00271	LDC00272	177.8	7	350	3.5	23
LDC00273	LDC00274	177.8	7	450	4.6	29
LDC00275	LDC00276	177.8	7	535	5.4	35
LDC00277	LDC00278	203.2	8	350	3.1	20
LDC00279	LDC00280	203.2	8	500	4.4	28
LDC00281	LDC00282	203.2	8	600	5.3	34
LDC00283	LDC00284	215.9	8½	675	5.6	36
LDC00285	LDC00286	228.6	9	350	2.7	17
LDC00287	LDC00288	228.6	9	550	4.3	27
LDC00289	LDC00290	241.3	9½	575	4.2	27
LDC00291	LDC00292	254.0	10	600	4.2	27
LDC00293	LDC00294	254.0	10	800	5.5	36
LDC00295	LDC00296	279.4	11	675	4.2	27
LDC00297	LDC00298	304.8	12	750	4.3	28
LDC00299	LDC00300	304.8	12	1000	5.7	37
LDC00301	LDC00302	342.9	13½	600	3.0	20
LDC00303	LDC00304	355.6	14	1000	4.9	31
LDC00305	LDC00306	406.4	16	950	4.0	26
LDC00307	LDC00308	457.2	18	950	3.6	23
—	LDC00309	457.2	18	1100	4.1	27
LDC00310	LDC00311	508.0	20	1000	3.4	22
LDC00312	LDC00313	533.4	21	1150	3.7	24
—	LDC00314	762.0	30	1800	4.0	26
—	LDC00315	787.4	31	1800	3.9	25

Note: Model numbers above are for low density cartridge heaters terminated with Type F flexible leads, 254 mm (10") long.

Ordering Example: LDC00279, 500 W, 120 Vac, cartridge heater.

Order by model number from the standard sizes and ratings list on the preceding pages. Note that model numbers shown are for heaters with Type F Termination [254 mm (10") leads].

Custom Engineered/Manufactured Heaters

Because an electric heater can be very application specific, for sizes and ratings not listed, OMEGA will design and manufacture a low-density cartridge heater to meet your requirements.

Please Specify the Following:

- Diameter
- Length
- Wattage
- Voltage
- Termination Types
- Lead Length
- Cable/Braid Length
- Special Features
- Application Type
- Operating Temperature