

Miniature Glass Heater

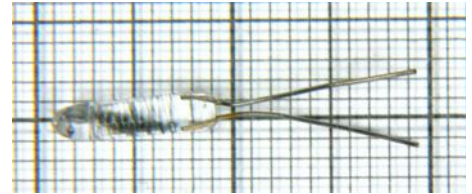
343-HEATER-2X9



Description

This miniature heater can be used over a wide temperature range from -200°C up to 450°C. The heating wire is embedded in glass, so the heater is fully UHV compatible.

The heater uses a well defined heater element, by this the temperature of the heater can be exactly monitored by measuring the voltage and the current.



343-HEATER-2X9 on millimetre paper

Specifications

	Value
Vacuum	UHV (1×10^{-10} mbar)
Material	Glass, Metal
Diameter	~ 2.2 mm
Length	~ 9 mm
Connection wires	10 mm long, 0.2 mm \varnothing
Resistivity	~11 Ohm at Room Temp.
	~2 Ohm at -200°C, ~25 Ohm at +450°C, see table (right)
Max. Current	0.75A (a heat sink must be available to avoid overheating)
Max. power	Approx. 10W

°C	Ohm	°C	Ohm	°C	Ohm
-200	1,8	60	12,3	320	21,9
-190	2,3	70	12,7	330	22,3
-180	2,7	80	13,1	340	22,6
-170	3,1	90	13,5	350	23,0
-160	3,6	100	13,9	360	23,3
-150	4,0	110	14,2	370	23,7
-140	4,4	120	14,6	380	24,0
-130	4,8	130	15,0	390	24,4
-120	5,2	140	15,4	400	24,7
-110	5,6	150	15,7	410	25,0
-100	6,0	160	16,1	420	25,4
-90	6,4	170	16,5	430	25,7
-80	6,8	180	16,8	440	26,1
-70	7,2	190	17,2	450	26,4
-60	7,6	200	17,6	460	26,7
-50	8,0	210	18,0	470	27,1
-40	8,4	220	18,3	480	27,4
-30	8,8	230	18,7	490	27,8
-20	9,2	240	19,0	500	28,1
-10	9,6	250	19,4	510	28,4
0	10,0	260	19,8	520	28,8
10	10,4	270	20,1	530	29,1
20	10,8	280	20,5	540	29,4
30	11,2	290	20,8	550	29,7
40	11,6	300	21,2	560	30,1
50	11,9	310	21,6	570	30,4

Resistivity versus Temperature between -200°C and +570°C. The heater is specified for up to 450°C

Additional notes: The grey values in the table are theoretical. Above 450°C the heater might be damaged.

For a good thermal contact, Allectra recommends the use of thermal contact liquid 317-TCL-1 or thermal contact pad 317-TCP-20x20

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All data given in this sheet are carefully checked but subject to change at any time.