

Contents

A	Introducing: Thermofoil™ Heaters <i>Advantages (A-4) • Thermofoil Solutions (A-5) • Heater Insulations (A-8) • Installation (A-9) Watt Density (A-10) • Selecting a Catalog Heater (A-11)</i>	A
B	Kapton™ Heaters <i>Thin, lightweight and chemical resistant for aerospace, medical, telecom, and commercial applications • Many models available from stock (B-2)</i>	200°C B
C	Silicone Rubber Heaters (Foil) <i>High temperature rating for commercial and industrial applications Many models available from stock (C-2)</i>	235°C C
D	Standard Kapton & Rubber Heaters <i>2000 standard sizes and resistance values of Kapton and rubber heating elements</i>	D
E	Wire-Wound Rubber Heaters <i>Inexpensive in large sizes for heavy industrial applications Many models available from stock (E-2)</i>	235°C E
F	Mica Heaters <i>Highest temperature and wattage ratings • Choose from 38 standard sizes (F-2)</i>	600°C F
G	Thermal-Clear™ Transparent Heaters <i>Heat without blocking light</i>	120°C G
H	All-Polyimide (AP) Heaters <i>Advantages of Kapton at higher temperatures and wattage</i>	260°C H
I	Standard Heater/Sensors <i>Integral RTD or thermistor sensors simplify control</i>	150°C I
J	Design Guide <i>Designing with Thermofoil Heaters (J-1) • Custom Design Options (J-2) Custom Heater/Sensors (J-3) • Heater Assemblies (J-4) • Examples (J-5)</i>	J
K	Temperature Controllers & Sensors <i>Fundamentals (K-1) • Heaterstat Sensorless DC Controller (K-2) • CT325 Miniature DC Controller (K-5) CT15 (K-7) • CT16A (K-8) • Accessories (K-10) • Temperature Sensors (K-11)</i>	K
L	Reference <i>Frequently asked questions (L-1) • Glossary (L-2) Agency approvals & special testing (L-4) • Index (L-5)</i>	L

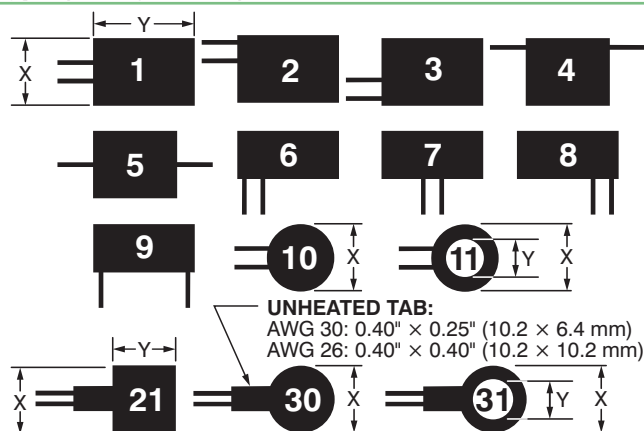
Standard Kapton & Rubber Heaters

In the following pages you'll find more than 400 standard foil heaters, suitable for prototype or production. Contact Minco for custom designs.

Each model is available with several resistance values. The wattage output at a particular resistance depends on voltage applied, per Ohm's law:

R Ohms (Ω)			P Watts (W)			I Amps (A)			E Volts (V)		
$\frac{E}{I}$	$\frac{E^2}{P}$	$\frac{P}{I^2}$	EI	I^2R	$\frac{E^2}{R}$	$\sqrt{\frac{P}{R}}$	$\frac{P}{E}$	$\frac{E}{R}$	$\sqrt{PR}$	$\frac{P}{I}$	IR

Type (configuration)



Types 21, 30, and 31 have lead connections on an external tab. The tab produces negligible heat and, in most cases, need not be adhered to the heat sink.

How to order standard heaters

Specifications on pages B-1 (Kapton) and C-1 (rubber).

HK	Insulation:		
	HK = Kapton HR = Silicone rubber		
5200	Model number from tables on following pages		
R17.4	Heater resistance in ohms		
L12	Lead length in inches		
	12" (305 mm) is standard Contact Minco for other lengths		
A	Heater backing option (see page A-9)		
		HK	HR
	A = No adhesive	-200 to 200°C	-45 to 235°C
	B = PSA backing	-32 to 100°C	-45 to 177°C
	D = Foil backing	-200 to 150°C	-45 to 235°C
	E = Foil/Acrylic PSA	-32 to 150°C	-32 to 150°C
	F = Foil/#12 PSA	-73 to 150°C	-45 to 204°C
U	U = Marked for UL component recognition: 		
	Omit for no UL marking (lower cost)		
	UL limits: 220°C for rubber heaters		
HK5200R17.4L12AU ← Sample part number			

Temperature sensitive elements

Heaterstats™ (page K-2) require temperature sensitive heating elements, such as those found in the "NiFe" and "Ni" columns. Their resistance increases with temperature. The resistances listed are measured at 0°C (32°F).

How to use the table of Standard Kapton & Silicone Rubber Heaters

Overall heater size in inches. Listed in ascending order, first by dimension X, then Y. Round heaters are last.

Heater type (lead exit configuration).

Element resistance options in ohms. Select resistance to produce desired wattage with available voltage (see Ohm's law)

Effective heating area. Use this value for calculating watt density.

Available heater insulation options for this model. K = Kapton R = rubber

Size (in)		Size (mm)		Type	Resistance options in ohms*						Effective area (in ²)	Lead AWG	Insulation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] →									
0.40	2.60	10.2	66.0	1=	123	62.5	37.8	18.2		19.1	0.74	30	K	5215
0.41	4.80	10.4	121.9	6=	100	50.1	30.2	14.5		15.5	1.40	26	K, R	5218
0.41	8.30	10.4	210.8	6=	61.9	31.4	15.0	7.1	6.2	2.6	2.50	26	K, R	5219

Overall heater size in millimeters. Listed in ascending order, first by dimension X, then Y. Round heaters are last.

Temperature sensitive element resistance options (at 0°C) for use with Minco Heaterstat. Rubber (HR) models are not available with NiFe element.

Leadwire size. Maximum current capacities are listed on pages B-1 and C-1.

Base model number.

*Resistance tolerance is ±10% or ±0.5 Ω , whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*						Effective area (in²)	Lead AWG	Insulation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni									
0.25	0.25	6.4	6.4	21	10.0	5.3					0.04	30	K	5565
0.25	0.50	6.4	12.7	21	15.0	7.9	4.3				0.08	30	K	5566
0.25	0.75	6.4	19.1	21	20.0	10.5	5.7				0.13	30	K	5567
0.25	1.00	6.4	25.4	21	25.0	13.1	7.1	3.9			0.18	30	K	5568
0.25	1.25	6.4	31.8	21	30.0	15.8	8.5	4.7			0.23	30	K	5569
0.25	1.50	6.4	38.1	21	35.0	18.4	10.0	4.7	5.4		0.27	30	K	5570
0.25	1.75	6.4	44.5	21	40.0	21.0	11.4	5.3	6.2		0.32	30	K	5571
0.25	2.30	6.4	58.4	6	17.4	9.2	5.2				0.38	26	K, R	5200
0.25	6.82	6.4	173.2	9	100	46.7	28.2	13.6	15.5		1.22	26	K, R	5201
0.25	7.67	6.4	194.8	8	143	71.7	38.1	19.1	22.2		1.15	30	K, R	5202
0.25	10.40	6.4	264.2	5	160	80.1	48.4	23.3	24.8 5.7		1.55	26	K, R	5203
0.27	2.00	6.9	50.8	1	18.9	9.5	5.7				0.35	26	K, R	5204
0.27	5.50	6.9	139.7	8	153	76.5	40.7	20.4	23.7 5.5		0.87	30	K	5205
0.27	6.90	6.9	175.3	1	220	110	65.5	32.1	34.1 7.8		1.40	30	K	5206
0.30	1.50	7.6	38.1	1	42.1	20.7	12.5	6.1	6.5		0.30	30	K, R	5207
0.30	3.11	7.6	79.0	1	44.1	22.1	13.3	6.4	6.8		0.70	26	K, R	5208
0.30	3.11	7.6	79.0	1	31.7	15.8	9.6	4.6			0.72	26	K, R	5209
0.34	3.47	8.6	88.1	1	120	56.1	33.9	16.3	18.6		0.88	30	K	5210
0.36	7.95	9.1	201.9	8	225	113	68.3	32.8	34.9 8.0		1.97	26	K, R	5211
0.37	6.10	9.4	154.9	1	73.1	36.4	22.1	10.6	11.3		1.68	26	K, R	5212
0.37	20.20	9.4	513.1	1	130	65.0	39.3	18.9 12.9 9.1	20.2		5.54	26	R	5213
0.40	2.60	10.2	66.0	1	123	62.5	37.8	18.2	19.1		0.74	30	K, R	5215
0.41	4.80	10.4	121.9	6	100	50.1	30.2	14.5	15.5		1.40	26	K, R	5218
0.41	8.30	10.4	210.8	5	61.9	31.1	18.8	9.1 6.2 4.3	9.6		2.50	26	K, R	5219
0.41	9.00	10.4	228.6	5	199	99.7	60.3	29.1	30.8 7.0		2.77	26	K, R	5220
0.42	2.30	10.7	58.4	1	50.1	26.1	15.3	7.3	7.8		0.67	26	K, R	5222
0.42	4.90	10.7	124.5	1	198	100	60.2	28.9	30.7 7.0		1.55	26	K	5224
0.42	7.10	10.7	180.3	1	322	161	85.7	42.8	49.9 11.4		2.06	30	K, R	5225
0.42	14.40	10.7	365.8	1	709	354	189	94.3	110 25.2		4.17	30	K	5227
0.43	3.95	10.9	100.3	8	238	119	63.3	31.7	36.9 8.5		1.22	26	K	5228
0.43	5.50	10.9	139.7	1	131	65.8	35.0	17.5	20.3		1.70	30	K, R	5229
0.43	5.90	10.9	149.9	6	37.3	18.8	11.3	5.4 3.7	5.8		1.87	26	K, R	5230
0.44	3.00	11.2	76.2	6	27.8	13.6	8.2	3.9			1.03	26	K, R	5231
0.44	3.00	11.2	76.2	6	45.8	22.9	13.8	6.6	7.1		1.03	26	K, R	5232
0.44	3.00	11.2	76.2	6	77.7	38.8	23.5	11.3	12.0		1.03	26	K, R	5233
0.45	3.88	11.4	98.6	8	153	76.4	40.7	20.3	23.7 5.4		1.17	26	K	5234
0.45	3.88	11.4	98.6	1	102	51.1	30.9	14.8	15.8		1.16	26	K, R	5235
0.45	3.88	11.4	98.6	3	134	67.3	40.7	19.6	20.8		1.16	26	K	5236
0.45	3.88	11.4	98.6	8	102	51.2	27.2	13.6	15.8		1.17	30	K, R	5237
0.46	5.10	11.7	129.5	1	264	132	79.9	38.4	40.9 9.4		1.77	26	K	5238
0.48	4.50	12.2	114.3	8	47.1	23.6	14.3	6.8 4.7	7.3		1.60	26	K, R	5239
0.48	6.28	12.2	159.5	8	70.2	35.1	18.7	9.3 6.2 4.7	10.9		2.20	26	K, R	5240
0.49	4.80	12.4	121.9	8	170	85.1	51.5	24.7	26.4 6.0		1.60	26	K, R	5241
0.50	0.50	12.7	12.7	21	26.5	13.9	7.5	4.1			0.19	30	K	5572
0.50	0.75	12.7	19.1	21	30.0	15.7	8.5	4.7			0.30	30	K, R	5573
0.50	1.00	12.7	25.4	21	35.0	18.3	10.0	4.6	5.4		0.41	30	K, R	5574
0.50	1.25	12.7	31.8	21	40.0	20.9	11.4	5.3	6.2		0.52	30	K, R	5575
0.50	1.50	12.7	38.1	21	45.0	23.5	12.8	5.9 4.4	7.0		0.63	30	K, R	5576
0.50	1.75	12.7	44.5	21	50.0	26.1	14.2	6.6 4.9	7.8		0.74	30	K, R	5577

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater

Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*						Effective area (in ²)	Lead AWG	Insu-lation	Model number		
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni											
0.50	2.00	12.7	50.8	1 	157	78.4	44.0				24.3	5.6	0.79	30	K, R	5160
0.50	2.50	12.7	63.5	1 	71.1	35.1	21.3	10.3			11.0		0.84	26	K, R	5242
0.50	3.00	12.7	76.2	1 	124	65.0	35.3	16.4	12.3	9.3	19.2		1.09	26	K, R	5594
0.50	3.77	12.7	95.8	1 	233	117	62.1	31.1			36.1	8.3	1.43	30	K	5243
0.50	3.77	12.7	95.8	1 	163	81.5	43.4	21.7			25.3	5.8	1.36	30	K, R	5244
0.50	4.00	12.7	101.6	1 	78.4	39.2	22.0				12.2		1.67	30	K, R	5161
0.50	4.00	12.7	101.6	1 	43.9	22.1	13.3	6.4	4.4		6.8		1.63	30	K, R	5245
0.50	4.00	12.7	101.6	1 	52.7	26.4	15.9	7.7	5.2	3.6	8.2		1.63	30	K, R	5246
0.50	5.00	12.7	127.0	5 	36.7	18.3	11.1	5.3	3.6		5.7		1.63	26	K, R	5247
0.50	5.10	12.7	129.5	8 	126	62.5	37.8	18.2			19.5		1.90	30	K, R	5248
0.50	6.00	12.7	152.4	1 	52.3	26.1	14.6				8.1		2.35	30	K, R	5162
0.50	7.50	12.7	190.5	1 	53.1	26.2	16.1	7.7	5.3	3.7	8.2		2.72	24	K, R	5249
0.50	12.87	12.7	326.9	6 	230	115	69.5	33.5			35.7	8.1	4.80	26	K, R	5250
0.50	12.87	12.7	326.9	6 	115	57.5	34.8	16.7	11.4	8.1	17.8		4.67	26	K, R	5251
0.50	12.87	12.7	326.9	6 	77.1	38.5	23.3	11.2	7.7	5.4	12.0		4.67	26	K, R	5252
0.50	18.50	12.7	469.9	1 	289	145	87.7	42.1	29.1	20.3	44.8	10.1	7.20	26	R	5253
0.52	8.20	13.2	208.3	8 	224	112	59.6	28.8			34.7	7.9	3.46	26	K, R	5254
0.53	1.00	13.5	25.4	1 	63.2	31.6	16.8	8.4			9.8		0.39	30	K	5255
0.53	1.20	13.5	30.5	1 	59.6	29.8	15.9	7.9			9.2		0.39	30	K	5256
0.53	2.00	13.5	50.8	2 	135	67.6	36.1	18.1			20.9		0.79	30	K	5257
0.53	4.60	13.5	116.8	3 	166	83.3	50.4	24.2			25.7	5.9	1.76	24	K, R	5259
0.53	4.60	13.5	116.8	3 	95.7	56.5	28.9	13.9			14.8		1.85	26	K, R	5260
0.54	2.00	13.7	50.8	1 	135	67.5	40.8	19.6			20.9		0.75	30	K	5261
0.54	8.10	13.7	205.7	1 	233	117	62.1	31.1			36.1	8.2	3.34	26	K, R	5262
0.55	1.20	14.0	30.5	1 	24.9	12.9	7.8	3.7					0.35	26	K, R	5264
0.55	6.60	14.0	167.6	1 	107	53.9	32.6	15.7	10.7	7.5	16.6		2.79	26	K, R	5267
0.55	15.00	14.0	381.0	1 	217	108	65.8	31.7	21.7	15.2	33.6	7.6	6.38	24	K, R	5268
0.60	9.90	15.2	251.5	1 	229	115	69.5	33.4	22.9	16.1	35.5	8.0	4.65	26	K, R	5270
0.60	10.65	15.2	270.5	6 	360	180	95.9	47.9			55.8	12.7	4.84	30	K, R	5271
0.65	10.75	16.5	273.1	7 	124	64.1	37.5	18.1	12.4	8.6	19.2		5.56	26	K, R	5273
0.75	0.75	19.1	19.1	21 	35.0	18.3	9.9	4.6			5.4		0.48	30	K, R	5578
0.75	1.00	19.1	25.4	21 	40.0	20.9	11.4	5.2			6.2		0.65	30	K, R	5579
0.75	1.25	19.1	31.8	21 	45.0	23.4	12.8	5.9	4.4		7.0		0.82	30	K, R	5580
0.75	1.50	19.1	38.1	21 	50.0	26.0	14.2	6.5	4.8		7.8		0.99	30	K, R	5581
0.75	1.75	19.1	44.5	21 	55.0	28.6	15.6	7.2	5.3		8.5		1.17	30	K, R	5582
0.75	1.85	19.1	47.0	1 	50.1	25.2	15.2	7.3	5.1	3.5	7.8		1.02	26	K, R	5274
0.75	2.00	19.1	50.8	21 	124	64.9	35.3	16.4	12.2	9.2	19.2		1.34	26	K, R	5595
0.75	2.50	19.1	63.5	2 	43.5	21.8	13.2	6.3	4.3		6.7		1.37	26	K, R	5275
0.75	3.00	19.1	76.2	1 	144	71.7	43.6	21.1			22.3		1.72	26	K, R	5276
0.75	3.00	19.1	76.2	1 	18.1	8.5	5.3						1.14	24	K, R	5277
0.75	3.25	19.1	82.6	6 	160	80.1	48.5	23.3			24.8	5.6	1.95	26	K, R	5278
0.75	4.00	19.1	101.6	1 	36.1	17.7	10.7	5.1	3.5		5.6		2.41	26	K, R	5279
0.75	4.00	19.1	101.6	1 	24.5	11.1	6.9	3.3					1.69	24	K, R	5280
0.75	4.95	19.1	125.7	8 	267	134	71.1	35.6			41.4	9.4	3.06	30	K	5281
0.75	5.00	19.1	127.0	1 	30.6	14.1	8.7	4.2					2.24	24	K, R	5282
0.75	6.00	19.1	152.4	1 	36.7	16.6	10.3	5.1			5.7		2.79	24	K, R	5283
0.75	7.00	19.1	177.8	1 	38.8	19.4	12.1	5.5	4.1		6.0		3.34	24	K, R	5284
0.75	8.00	19.1	203.2	1 	48.7	22.1	13.7	6.4	4.4	3.3	7.5		3.89	24	K, R	5285
0.75	9.00	19.1	228.6	1 	54.7	25.1	15.6	7.1	5.1	3.6	8.5		4.44	24	K, R	5286

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*								Effective area (in²)	Lead AWG	Insulation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni											
0.75	10.00	19.1	254.0	1	60.8	27.7	17.2	7.7	5.5	4.1	9.4		4.99	24	K, R	5287
0.75	11.00	19.1	279.4	1	66.9	30.4	18.8	8.7	6.1	4.5	10.4		5.54	24	K, R	5288
0.75	11.00	19.1	279.4	1	200	100	60.5	29.1	19.9	13.9	31.0	7.0	6.32	24	K, R	5289
0.75	12.00	19.1	304.8	1	72.6	33.1	20.5	9.1	6.4	4.7	11.3		6.09	24	K, R	5290
0.78	2.76	19.8	70.1	6	83.7	41.9	22.3	11.1	7.4	5.6	13.0		1.79	30	K, R	5292
0.80	1.55	20.3	39.4	2	313	156	83.1	41.6			48.5	11.3	0.90	30	K	5294
0.80	1.55	20.3	39.4	2	105	52.5	27.9	14.0			16.3		0.94	30	K, R	5295
0.80	2.75	20.3	69.9	8	39.7	19.8	12.1	5.7	3.9		6.2		1.52	26	K, R	5296
0.80	6.00	20.3	152.4	8	123	61.8	37.4	17.9	12.3	8.6	19.1		4.23	26	K, R	5297
0.80	8.10	20.3	205.7	8	21.5	11.2	6.9						5.39	26	K, R	5298
0.80	11.50	20.3	292.1	8	166	83.2	50.3	24.2	16.5	11.6	25.7	5.8	7.52	24	K, R	5299
0.80	14.25	20.3	362.0	8	206	103	62.4	30.1	20.5	14.4	31.9	7.2	9.38	24	K, R	5300
0.81	4.81	20.6	122.2	2	64.7	32.9	19.6	9.4	6.4	4.5	10.0		3.33	26	K, R	5301
0.82	2.46	20.8	62.5	9	243	121	64.5	32.3			37.7	8.6	1.66	30	K, R	5302
0.85	1.00	21.6	25.4	6	70.2	35.1	20.6	9.9			10.9		0.60	30	K, R	5303
0.85	2.48	21.6	63.0	9	268	134	71.3	35.7			41.5	9.5	1.65	30	K	5304
0.85	4.90	21.6	124.5	3	207	104	55.1	27.5			32.1	7.3	3.60	26	K, R	5305
0.86	15.80	21.8	401.3	1	140	70.1	42.3	20.3	13.9	9.7	21.7		11.10	24	K, R	5306
0.87	8.65	22.1	219.7	8	561	281	149	74.7			87.0	19.8	6.39	26	K, R	5307
0.87	14.85	22.1	377.2	8	131	65.4	39.6	19.1	13.1	9.1	20.3		10.28	24	K, R	5308
0.88	5.35	22.4	135.9	8	62.6	31.3	18.9	9.1	6.2	4.4	9.7		3.85	26	K, R	5309
0.90	4.95	22.9	125.7	3	207	103	62.6	30.1			32.1	7.3	3.52	26	K, R	5310
0.94	3.90	23.9	99.1	9	119	59.6	31.8	15.9	10.6	7.9	18.4		2.94	30	K, R	5311
0.96	1.48	24.4	37.6	3	76.1	38.1	20.2	10.1			11.8		1.10	30	K, R	5312
0.97	1.21	24.6	30.7	3	84.3	42.2	22.4	11.2			13.1		0.90	30	K, R	5313
0.97	2.96	24.6	75.2	2	303	151	80.5	40.3			47.0	10.7	2.45	30	K, R	5314
0.98	1.48	24.9	37.6	6	80.1	39.7	24.1	11.6			12.4		1.13	26	K, R	5315
0.98	2.75	24.9	69.9	1	206	103	61.7	29.7			31.9	7.3	2.07	26	K, R	5316
1.00	1.00	25.4	25.4	1	157	78.4	44.0				24.3	5.6	0.82	30	K, R	5163
1.00	1.00	25.4	25.4	1	52.1	26.1	15.7	7.6			8.1		0.65	26	K, R	5318
1.00	1.00	25.4	25.4	21	70.0	36.6	19.9	9.2	6.8	5.2	10.9		0.88	30	K, R	5583
1.00	1.25	25.4	31.8	21	65.0	33.9	18.5	8.5	6.3	4.7	10.1		1.12	30	K, R	5584
1.00	1.50	25.4	38.1	21	75.0	39.1	21.3	9.8	7.3	5.4	11.6		1.35	30	K, R	5585
1.00	1.75	25.4	44.5	21	100	52.2	28.4	13.1	9.7	7.3	15.5		1.59	30	K, R	5586
1.00	2.00	25.4	50.8	1	78.4	39.2	22.0				12.2		1.76	30	K, R	5164
1.00	2.00	25.4	50.8	1	14.6	7.3	4.5						1.04	24	K, R	5319
1.00	2.30	25.4	58.4	3	220	110	58.4	29.2			34.1	7.8	1.82	30	K, R	5320
1.00	2.50	25.4	63.5	1	146	72.1	43.1	20.7			22.6	5.1	1.89	26	K, R	5321
1.00	2.50	25.4	63.5	1	107	53.3	32.3	15.5			16.6		1.89	26	K, R	5322
1.00	3.00	25.4	76.2	1	52.3	26.1	14.6				8.1		2.70	30	K, R	5165
1.00	3.00	25.4	76.2	1	23.9	10.7	6.6						1.84	24	K, R	5323
1.00	3.00	25.4	76.2	1	58.0	26.6	16.1	7.7	5.3	3.7	9.0		2.30	26	K, R	5324
1.00	3.00	25.4	76.2	1	36.4	17.9	10.8	5.2	3.6		5.6		2.30	26	K, R	5325
1.00	3.62	25.4	91.9	3	61.1	30.6	18.5	8.9	6.1	4.2	9.5		2.97	26	K, R	5326
1.00	3.72	25.4	94.5	3	445	223	118	59.2			69.0	15.8	3.15	30	K, R	5327
1.00	3.72	25.4	94.5	3	389	195	118	56.7			60.3	13.8	3.06	26	K, R	5328
1.00	3.82	25.4	97.0	2	160	80.1	48.5	23.3	15.9	11.2	24.8	5.6	3.29	26	K, R	5329
1.00	4.00	25.4	101.6	1	83.3	42.7	25.2	12.1	8.3	5.8	12.9		3.33	26	K, R	5330
1.00	4.00	25.4	101.6	1	30.8	13.9	8.6	4.2					2.64	24	K, R	5331

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*							Effective area (in ²)	Lead AWG	Insulation	Model number	
X	Y	X	Y		R(0°C) [May be used with Heaterstat] →						NiFe					Ni
1.00	4.75	25.4	120.7	6 	302	151	91.6	44.1			46.8	10.6	4.29	24	K, R	5332
1.00	4.75	25.4	120.7	6 	266	133	80.5	38.7			41.2	9.4	4.05	26	K, R	5333
1.00	5.00	25.4	127.0	1 	529	264	148				82.0	18.7	4.41	30	K, R	5166
1.00	5.00	25.4	127.0	1 	38.1	17.2	10.7	5.1			5.9		4.34	24	K, R	5334
1.00	6.00	25.4	152.4	1 	45.3	20.8	12.9	5.8	4.1		7.0		4.24	24	K, R	5335
1.00	6.00	25.4	152.4	2 	162	80.9	48.9	23.5	16.1	11.3	25.1	5.7	5.13	26	K, R	5336
1.00	7.00	25.4	177.8	1 	52.1	24.1	14.9	6.8	4.7	3.5	8.1		5.04	24	K, R	5337
1.00	7.00	25.4	177.8	1 	86.1	43.1	26.1	12.3	8.5	6.1	13.3		6.19	26	K, R	5338
1.00	7.05	25.4	179.1	1 	111	55.7	33.7	16.2	11.1	7.7	17.2		6.12	26	K, R	5339
1.00	8.00	25.4	203.2	1 	58.9	27.5	17.1	7.7	5.4	3.9	9.1		5.84	24	K, R	5340
1.00	9.00	25.4	228.6	1 	66.1	30.4	18.8	8.7	5.9	4.4	10.2		6.64	24	K, R	5341
1.00	10.00	25.4	254.0	1 	264	132	74.1				40.9	9.2	8.96	30	K, R	5167
1.00	10.00	25.4	254.0	1 	73.4	34.1	21.1	9.4	6.6	4.9	11.4		7.44	24	K, R	5342
1.00	11.00	25.4	279.4	1 	79.8	37.2	23.1	10.3	7.2	5.4	12.4		8.24	24	K, R	5343
1.00	12.00	25.4	304.8	1 	86.5	40.3	24.9	11.1	7.7	5.8	13.4		9.04	24	K, R	5344
1.00	12.00	25.4	304.8	3 	163	82.1	49.6	23.8	16.3	11.4	25.3	5.7	10.53	24	K, R	5345
1.00	12.00	25.4	304.8	1 	1063	531	321	154			165	37.6	10.53	26	K, R	5346
1.00	12.10	25.4	307.3	1 	155	76.6	46.3	22.3	15.2	10.6	24.0	5.4	10.62	26	K, R	5347
1.00	15.00	25.4	381.0	1 	176	88.2	49.4				27.3	6.1	13.51	30	K, R	5168
1.00	19.00	25.4	482.6	1 	121	60.8	36.8	17.7	12.1	8.5	18.8		13.88	24	R	5348
1.00	22.06	25.4	560.3	1 	93.1	46.5	24.8	12.4	8.3	6.2	14.4		18.90	24	R	5349
1.02	10.00	25.9	254.0	5 	946	473	252	126			147	33.5	8.60	24	K, R	5350
1.04	2.76	26.4	70.1	5 	262	131	69.6	34.8			40.6	9.3	2.04	26	K, R	5351
1.04	4.35	26.4	110.5	1 	87.6	43.8	23.3	11.7	7.8	5.8	13.6		4.06	26	K, R	5352
1.04	7.76	26.4	197.1	8 	1321	660	352	176			205	47.1	6.80	30	K	5353
1.05	4.04	26.7	102.6	8 	243	122	64.8	32.4			37.7	8.5	3.65	30	K, R	5354
1.05	4.65	26.7	118.1	8 	152	74.1	44.4	21.3			23.6	5.3	4.05	26	K, R	5355
1.05	5.60	26.7	142.2	7 	440	220	133	64.1			68.2	15.5	5.04	26	K, R	5356
1.05	9.70	26.7	246.4	1 	276	138	73.4	36.7	24.5	18.3	42.8	9.6	8.80	24	K, R	5357
1.07	4.05	27.2	102.9	8 	103	51.3	27.3	13.7	9.1	6.8	16.0		3.67	30	K, R	5358
1.10	4.00	27.9	101.6	1 	600	300	181	87.3			93.0	21.3	3.75	30	K	5359
1.10	4.00	27.9	101.6	1 	394	197	119	57.4			61.1	13.9	3.70	30	K, R	5360
1.10	18.50	27.9	469.9	3 	350	175	106	50.1	34.8	24.3	54.3	12.2	17.64	24	R	5361
1.13	3.51	28.7	89.2	8 	107	53.4	28.4	14.2	9.5	6.6	16.6		3.43	30	K, R	5362
1.17	1.91	29.7	48.5	2 	125	62.5	37.8	18.2			19.4		1.79	26	K, R	5364
1.20	2.76	30.5	70.1	1 	275	136	82.7	39.8			42.6	9.7	2.86	30	K, R	5366
1.20	3.40	30.5	86.4	7 	92.0	45.7	26.6	13.3	9.1	6.4	14.3		3.41	26	K, R	5367
1.22	2.24	31.0	56.9	8 	111	55.5	29.5	14.8	9.8	7.4	17.2		2.33	30	K, R	5368
1.23	2.48	31.2	63.0	2 	101	50.8	27.1	13.5	9.4	6.7	15.7		2.60	30	K, R	5369
1.24	1.80	31.5	45.7	2 	298	148	90.1	43.3			46.2	10.6	1.90	30	K	5370
1.25	1.25	31.8	31.8	21 	100	52.2	28.4	13.1	9.7	7.3	15.5		1.42	30	K, R	5587
1.25	1.50	31.8	38.1	21 	125	65.3	35.5	16.4	12.2	9.2	19.4		1.71	30	K, R	5588
1.25	1.75	31.8	44.5	21 	150	78.4	42.6	19.7	14.6	11.0	23.3	5.3	2.01	30	K, R	5589
1.25	6.30	31.8	160.0	1 	136	68.2	41.3	19.8	13.6	9.5	21.1		6.84	24	K, R	5371
1.25	8.80	31.8	223.5	1 	51.9	25.9	15.7	7.5	5.1	3.6	8.0		9.86	24	K, R	5372
1.25	15.00	31.8	381.0	1 	219	109	66.5	32.1	21.9	15.3	33.9	7.6	15.79	24	K, R	5373
1.35	5.60	34.3	142.2	3 	876	438	265	127			136	31.1	6.57	30	K	5374
1.37	5.80	34.8	147.3	1 	250	125	75.8	36.5	24.9	17.5	38.8	8.7	7.15	26	K, R	5375
1.38	2.75	35.1	69.9	2 	305	152	92.1	44.2			47.3	10.8	3.21	26	K, R	5376

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*								Effective area (in ²)	Lead AWG	Insulation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni											
1.40	2.34	35.6	59.4	1	197	98.7	52.5	26.3	17.5	13.1	30.5	6.9	2.90	30	K, R	5377
1.40	6.30	35.6	160.0	8	771	386	205	103			120	27.2	8.08	30	K, R	5378
1.45	2.40	36.8	61.0	8	106	53.4	32.3	15.5	10.6	7.4	16.4		2.90	26	K, R	5379
1.45	8.15	36.8	207.0	8	474	237	126	63.1	42.1	31.5	73.5	16.6	10.52	24	K, R	5380
1.48	10.10	37.6	256.5	1	126	62.9	33.5	16.7	11.2	8.4	19.5		13.40	24	K, R	5381
1.50	1.50	38.1	38.1	21	150	78.3	42.6	19.7	14.6	11.0	23.3	5.3	2.07	30	K, R	5590
1.50	1.75	38.1	44.5	21	175	91.4	49.7	23.0	17.1	12.9	27.1	6.2	2.43	30	K, R	5591
1.50	2.00	38.1	50.8	1	14.8	7.2	4.5						1.84	24	K, R	5382
1.50	3.00	38.1	76.2	1	21.8	10.7	6.6						3.14	24	K, R	5383
1.50	4.00	38.1	101.6	1	29.1	14.4	8.8	4.3					4.44	24	K, R	5384
1.50	4.10	38.1	104.1	2	103	51.7	27.5	13.7	9.2	6.9	16.0		4.00	30	K, R	5385
1.50	5.00	38.1	127.0	1	36.2	17.9	10.9	5.1	3.4		5.6		5.74	24	K, R	5386
1.50	6.00	38.1	152.4	1	43.3	21.7	13.2	6.2	4.2		6.7		7.04	24	K, R	5387
1.50	6.42	38.1	163.1	8	140	70.2	37.4	18.7			21.7		7.70	30	K, R	5388
1.50	6.42	38.1	163.1	8	1317	659	350	175			204	46.8	8.50	30	K, R	5389
1.50	7.00	38.1	177.8	1	50.1	25.1	15.2	7.2	4.7	3.5	7.8		8.34	24	K, R	5390
1.50	8.00	38.1	203.2	1	57.1	28.7	17.5	8.1	5.3	3.9	8.9		9.64	24	K, R	5391
1.50	8.05	38.1	204.5	2	304	152	92.1	44.3	30.3	21.2	47.1	10.6	10.80	26	K, R	5392
1.50	9.00	38.1	228.6	1	64.1	32.2	19.6	8.9	6.1	4.4	9.9		10.94	24	K, R	5393
1.50	10.00	38.1	254.0	1	71.4	35.7	21.8	10.1	6.7	4.9	11.1		12.24	24	K, R	5394
1.50	11.00	38.1	279.4	1	78.5	39.1	23.9	10.9	7.3	5.3	12.2		13.54	24	K, R	5395
1.50	11.00	38.1	279.4	1	391	180	118	57.1	38.9	27.3	60.6	13.6	14.77	24	K, R	5396
1.50	12.00	38.1	304.8	1	85.6	42.8	25.8	11.8	7.8	5.8	13.3		14.84	24	K, R	5397
1.53	3.05	38.9	77.5	8	176	88.4	53.4	25.7	17.6	12.3	27.3	6.2	3.89	26	K, R	5398
1.55	3.05	39.4	77.5	1	130	65.3	39.5	19.1	13.1	9.1	20.2		4.06	26	K, R	5399
1.61	2.15	40.9	54.6	1	205	102	54.5	27.3			31.8	7.2	3.00	30	K, R	5400
1.62	2.77	41.1	70.4	1	166	81.1	48.6	23.3	15.9	11.2	25.7	5.8	3.95	30	K, R	5401
1.65	3.00	41.9	76.2	2	128	64.1	38.8	18.3	12.8	8.9	19.8		4.50	30	K, R	5402
1.65	5.00	41.9	127.0	1	162	81.1	48.9	23.5	16.1	11.3	25.1	5.6	7.44	26	K, R	5403
1.70	5.10	43.2	129.5	1	580	290	154	77.2			89.9	20.4	7.77	24	K, R	5404
1.75	1.75	44.5	44.5	21	200	104	56.8	26.3	19.5	14.7	31.0	7.0	2.86	30	K, R	5592
1.75	2.73	44.5	69.3	2	159	79.5	48.1	23.1	15.8	11.1	24.6	5.6	3.77	26	K, R	5405
1.76	4.79	44.7	121.7	1	330	165	87.9	43.9	29.3	22.1	51.2	11.6	7.56	30	K, R	5406
1.78	4.30	45.2	109.2	1	737	369	196	98.1			114	26.1	6.66	30	K, R	5407
1.78	5.28	45.2	134.1	1	588	294	156	78.2			91.1	20.7	8.34	30	K, R	5408
1.80	1.80	45.7	45.7	3	251	126	66.8	33.4			38.9	8.9	2.70	30	K, R	5409
1.88	5.75	47.8	146.1	1	288	144	86.9	41.7	28.6	20.1	44.6	10.1	9.68	24	K, R	5410
1.90	3.16	48.3	80.3	6	236	118	62.8	31.4	20.9	15.7	36.6	8.3	5.48	26	K, R	5411
1.92	4.45	48.8	113.0	8	348	174	92.5	46.3	30.8	23.1	53.9	12.2	7.69	26	K, R	5412
1.94	5.29	49.3	134.4	6	508	254	135	67.6	45.1	31.6	78.7	17.8	9.38	30	K, R	5413
1.96	3.77	49.8	95.8	1	749	374	199	99.6			116	26.5	6.83	30	K, R	5414
1.97	2.16	50.0	54.9	3	112	56.3	34.1	16.4	11.2	7.8	17.4		3.79	26	K, R	5415
1.98	3.82	50.3	97.0	1	752	376	200	98.9			117	26.6	6.75	30	K, R	5416
2.00	2.00	50.8	50.8	1	661	331	185				102	23.6	3.59	30	K, R	5169
2.00	2.00	50.8	50.8	1	36.1	17.8	10.9	5.3			5.6		2.82	24	K, R	5417
2.00	2.60	50.8	66.0	7	344	172	104	51.8			53.3	12.1	4.75	26	K, R	5418
2.00	3.00	50.8	76.2	1	441	220	123				68.4	15.5	5.50	30	K, R	5170
2.00	3.00	50.8	76.2	1	53.3	25.9	15.9	7.5	5.4	3.6	8.3		4.62	24	K, R	5419
2.00	3.00	50.8	76.2	7	33.3	15.6	9.8	4.5			5.2		4.54	24	K, R	5463

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*								Effective area (in²)	Lead AWG	Insu-lation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] →						NiFe	Ni				
2.00	3.25	50.8	82.6	6	86.6	43.3	26.2	12.6	8.6	6.1	13.4	5.60	24	K, R	5420	
2.00	3.25	50.8	82.6	6	75.6	37.8	22.8	10.9	7.5	5.3	11.7	5.50	26	K, R	5421	
2.00	4.00	50.8	101.6	1	331	165	92.7				51.3 11.6	7.41	30	K, R	5171	
2.00	4.00	50.8	101.6	1	70.1	34.6	21.2	10.4	6.9	4.8	10.9	6.73	24	K, R	5422	
2.00	4.00	50.8	101.6	7	23.7	11.6	7.3					6.34	24	K, R	5487	
2.00	5.00	50.8	127.0	1	88.1	43.2	26.2	13.1	8.6	5.9	13.7	8.22	24	K, R	5423	
2.00	5.00	50.8	127.0	7	23.9	13.1	8.8	4.3				8.14	24	K, R	5506	
2.00	6.00	50.8	152.4	1	220	110	61.6				34.1 7.7	11.23	30	K, R	5172	
2.00	6.00	50.8	152.4	1	104	51.8	31.9	15.1	9.8	7.1	16.1	10.02	24	K, R	5424	
2.00	6.05	50.8	153.7	1	99.7	49.9	30.2	14.5	9.9	6.9	15.5	11.00	24	K, R	5425	
2.00	7.00	50.8	177.8	1	120	60.4	36.5	17.5	11.2	8.3	18.6	11.82	24	K, R	5426	
2.00	8.00	50.8	203.2	1	137	68.9	41.9	20.1	12.9	9.4	21.2	13.62	24	K, R	5427	
2.00	9.00	50.8	228.6	1	154	77.7	46.8	21.6	14.3	10.6	23.9 5.3	15.42	24	K, R	5428	
2.00	10.00	50.8	254.0	1	171	85.8	52.1	23.8	16.1	11.6	26.5 5.9	17.22	24	K, R	5429	
2.00	10.00	50.8	254.0	6	320	160	96.8	46.5	31.8	23.3	49.6 11.1	18.20	26	K, R	5430	
2.00	11.00	50.8	279.4	1	188	94.1	57.1	26.4	17.7	13.1	29.1 6.5	19.02	24	K, R	5431	
2.00	12.00	50.8	304.8	1	220	110	61.6	28.6			34.1 7.6	22.69	24	K, R	5173	
2.00	12.00	50.8	304.8	1	206	102	61.9	28.5	18.8	14.1	31.9 7.2	20.82	24	K, R	5432	
2.00	12.00	50.8	304.8	1	442	221	134	63.5	44.1	30.8	68.5 15.4	21.80	24	K, R	5433	
2.05	2.70	52.1	68.6	8	725	362	219	97.3			112 25.7	5.19	30	K	5434	
2.15	2.55	54.6	64.8	2	123	62.1	37.3	17.9	12.3	8.6	19.1	5.05	26	K, R	5435	
2.17	3.80	55.1	96.5	1	681	340	181	90.6			106 24.0	7.20	30	K, R	5436	
2.25	4.00	57.2	101.6	1	284	142	86.1	41.4	28.3	19.8	44.0 9.9	7.70	26	K, R	5437	
2.25	4.50	57.2	114.3	6	140	70.3	42.5	20.4	14.1	9.8	21.7	8.82	24	K, R	5438	
2.25	5.25	57.2	133.4	6	142	70.9	42.9	20.6	14.2	9.9	22.0	10.53	24	K, R	5439	
2.25	5.25	57.2	133.4	6	160	80.1	48.6	23.4	15.9	11.2	24.8 5.6	10.40	24	K, R	5440	
2.25	6.28	57.2	159.5	8	364	182	110	53.1	36.3	25.4	56.4 12.7	12.52	26	K, R	5441	
2.30	9.07	58.4	230.4	6	1016	508	270	135	90.1	67.6	157 35.6	19.70	24	K, R	5443	
2.35	4.10	59.7	104.1	7	168	84.1	50.9	24.4	16.7	11.7	26.0 5.9	8.58	24	K, R	5444	
2.45	6.07	62.2	154.2	8	861	431	229	115			133 30.3	14.00	24	K, R	5445	
2.50	3.00	63.5	76.2	1	421	210	127	61.2			65.3 14.8	6.40	26	K, R	5446	
2.50	3.00	63.5	76.2	1	290	145	87.9	42.2	28.9	20.2	45.0 10.2	6.90	26	K, R	5447	
2.50	4.00	63.5	101.6	1	576	288	174	83.8			89.3 20.2	8.90	30	K, R	5448	
2.50	4.04	63.5	102.6	1	703	351	187	93.5			109 24.8	9.35	24	K, R	5449	
2.50	5.00	63.5	127.0	1	231	115	69.9	33.6	22.9	16.1	35.8 8.0	11.30	26	K, R	5450	
2.50	6.00	63.5	152.4	3	206	103	62.3	30.1	20.5	14.3	31.9 7.2	13.60	26	K, R	5451	
2.50	8.00	63.5	203.2	1	315	157	95.3	45.8	31.3	21.9	48.8 11.0	18.70	26	K, R	5452	
2.50	11.30	63.5	287.0	1	2341	1170	623	311			363 82.6	25.70	24	K, R	5453	
2.50	11.42	63.5	290.1	1	2089	1045	556	278			324 73.6	26.40	24	K, R	5454	
2.53	3.05	64.3	77.5	6	93.7	47.1	28.3	13.6	9.3	6.5	14.5	7.17	26	K, R	5455	
2.55	3.05	64.8	77.5	8	165	82.9	50.1	24.1	16.4	11.5	25.6 5.8	7.00	30	K, R	5456	
2.68	3.44	68.1	87.4	2	72.6	36.3	21.9	10.6	7.2	5.1	11.3	7.64	26	K, R	5457	
2.75	12.00	69.9	304.8	1	243	121	73.6	35.4	24.2	16.9	37.7 8.4	30.90	24	K, R	5458	
2.81	2.94	71.4	74.7	2	253	126	76.7	36.9	25.2	17.7	39.2 8.8	7.45	26	K, R	5459	
2.87	16.41	72.9	416.8	6	1648	824	438	219	146	110	255 57.6	45.30	24	R	5460	
2.92	6.82	74.2	173.2	3	713	357	190	94.8	63.2	47.4	111 24.9	18.50	24	K, R	5461	
2.92	6.82	74.2	173.2	1	1566	784	474	228			243 55.2	18.50	26	K, R	5462	
3.00	3.00	76.2	76.2	1	294	147	82.3				45.6 10.3	8.41	30	K, R	5174	
3.00	3.00	76.2	76.2	1	46.5	23.3	14.6	6.4	4.9		7.2	7.34	24	K, R	5464	

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*							Effective area (in ²)	Lead AWG	Insu-lation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni										
3.00	3.10	76.2	78.7	1	44.4	22.2	13.4	6.5	4.4		6.9	7.98	24	K, R	5465
3.00	4.00	76.2	101.6	1	62.1	30.9	19.4	8.6	5.7	4.1	9.6	10.14	24	K, R	5466
3.00	4.00	76.2	101.6	7	35.1	17.1	10.8	4.6			5.4	10.14	24	K, R	5488
3.00	5.00	76.2	127.0	1	176	88.2	49.4				27.3 6.1	14.23	30	K, R	5175
3.00	5.00	76.2	127.0	1	77.7	38.7	24.2	10.3	7.1	5.1	12.0	12.94	24	K, R	5467
3.00	5.00	76.2	127.0	7	36.1	19.5	12.6	5.9	3.7		5.6	12.94	24	K, R	5507
3.00	6.00	76.2	152.4	1	93.8	46.1	29.1	12.9	8.6	6.1	14.5	15.74	24	K, R	5468
3.00	7.00	76.2	177.8	1	109	53.4	33.9	14.3	10.1	7.1	16.9	18.54	24	K, R	5469
3.00	8.00	76.2	203.2	1	125	60.9	38.8	16.1	11.4	8.1	19.4	21.34	24	K, R	5470
3.00	9.00	76.2	228.6	1	141	68.3	43.5	18.9	12.9	9.1	21.9	24.14	24	K, R	5471
3.00	9.00	76.2	228.6	1	407	203	123	59.2	40.5	28.3	63.1 14.2	25.50	26	K, R	5472
3.00	10.00	76.2	254.0	1		340	190	88.2	67.9	53.8	103 23.1	28.75	24	K, R	5176
3.00	10.00	76.2	254.0	1	156	75.8	48.3	20.3	14.9	10.2	24.2 5.4	26.94	24	K, R	5473
3.00	11.00	76.2	279.4	1	172	83.6	53.1	22.3	15.7	11.1	26.7 6.0	29.74	24	K, R	5474
3.00	12.00	76.2	304.8	1	188	91.1	57.7	23.9	16.7	12.1	29.1 6.5	32.54	24	K, R	5475
3.00	15.00	76.2	381.0	1		226	126	58.8	45.3	35.9	68.2 15.3	43.30	24	K, R	5177
3.03	3.03	77.0	77.0	3	1317	658	350	175			204 46.8	8.34	30	K	5476
3.10	4.10	78.7	104.1	1	306	153	92.7	43.8	18.1	12.7	47.4 10.7	11.40	26	K, R	5477
3.10	6.10	78.7	154.9	1	88.6	44.4	26.9	12.9	8.8	6.2	13.7	16.60	24	K, R	5478
3.10	7.10	78.7	180.3	3	104	52.3	31.6	15.2	10.4	7.3	16.1	19.80	24	K, R	5479
3.10	9.10	78.7	231.1	1	1500	750	454	218			233 52.7	25.60	26	K, R	5480
3.10	12.10	78.7	307.3	1	445	222	135	63.9	44.3	31.1	69.0 15.5	33.90	24	K, R	5481
3.25	3.25	82.6	82.6	7	172	86.1	52.1	25.1	17.1	12.1	26.7 6.0	9.80	26	K, R	5482
3.50	7.35	88.9	186.7	1	252	126	76.3	36.7	25.1	17.6	39.1 8.8	23.30	24	K, R	5483
3.63	16.27	92.2	413.3	1	795	398	212	106	70.5	52.9	123 27.7	56.00	24	R	5484
3.75	4.75	95.3	120.7	6	72.5	36.3	21.9	10.5	7.2	5.1	11.2	15.60	26	K, R	5485
3.80	8.60	96.5	218.4	1	243	121	73.6	35.4	24.2	16.9	37.7 8.4	29.80	24	K, R	5486
4.00	4.00	101.6	101.6	1	330	165	92.4	42.9			51.2 11.5	15.20	30	K, R	5178
4.00	4.00	101.6	101.6	1	46.5	23.3	14.3	6.1	4.9		7.2	13.94	24	K, R	5489
4.00	5.00	101.6	127.0	1	57.9	27.7	17.7	7.6	5.5	3.8	9.0	17.74	24	K, R	5490
4.00	5.00	101.6	127.0	7	48.5	25.9	16.8	7.3	5.1	3.5	7.5	17.74	24	K, R	5508
4.00	6.00	101.6	152.4	1	69.3	33.2	21.3	9.4	6.4	4.6	10.7	21.54	24	K, R	5491
4.00	7.00	101.6	177.8	1	80.7	38.6	24.7	10.9	7.2	5.3	12.5	25.34	24	K, R	5492
4.00	8.00	101.6	203.2	1		318	178	82.7	63.7	50.4	96.0 21.6	30.84	24	K, R	5179
4.00	8.00	101.6	203.2	1	92.3	43.9	28.3	12.3	8.4	6.1	14.3	29.14	24	K, R	5493
4.00	8.00	101.6	203.2	3	378	189	114	55.1	37.6	26.3	58.6 13.1	30.30	24	K, R	5494
4.00	9.00	101.6	228.6	1	103	49.5	31.7	13.4	9.3	6.8	16.0	32.94	24	K, R	5495
4.00	10.00	101.6	254.0	1	114	55.1	35.3	14.8	10.8	7.6	17.7	36.74	24	K, R	5496
4.00	11.00	101.6	279.4	1	126	60.6	38.8	16.2	11.7	8.3	19.5	40.54	24	K, R	5497
4.00	12.00	101.6	304.8	1		212	118	55.1	42.4	33.6	64.0 14.3	46.48	24	K, R	5180
4.00	12.00	101.6	304.8	1	137	66.1	42.1	17.6	12.2	9.1	21.2	44.34	24	K, R	5498
4.00	15.50	101.6	393.7	2	445	223	135	64.8	44.3	31.1	69.0 15.4	58.70	24	K, R	5499
4.00	16.80	101.6	426.7	6	720	360	218	105	71.6	50.1	112 25.0	63.00	24	R	5500
4.00	20.00	101.6	508.0	1	851	426	257	120	84.6	59.3	132 29.6	74.50	24	R	5501
4.05	8.05	102.9	204.5	1	617	312	186	89.9	61.4	43.1	95.6 21.5	30.40	26	K, R	5502
4.05	9.05	102.9	229.9	1	1400	700	420	210	139	97.1	217 49.0	34.10	26	K, R	5503
4.05	11.90	102.9	302.3	8	290	145	87.8	42.2	28.9	20.2	45.0 10.1	45.00	24	K, R	5504
4.50	19.40	114.3	492.8	1	30.1	15.1	9.1	4.3				81.30	24	R	5505
5.00	5.00	127.0	127.0	1		407	227	106	81.5	64.5	123 27.7	24.02	24	K, R	5181

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*								Effective area (in ²)	Lead AWG	Insulation	Model number			
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni														
5.00	5.00	127.0	127.0	1 	61.5	32.6	21.1	8.9	6.1	4.3	9.5		22.54	24	K, R	5509			
5.00	6.00	127.0	152.4	1 	72.4	38.8	24.9	10.6	7.3	5.1	11.2		27.34	24	K, R	5510			
5.00	7.00	127.0	177.8	1 	84.3	45.1	29.2	12.3	8.9	5.9	13.1		32.14	24	K, R	5511			
5.00	8.00	127.0	203.2	1 	96.2	51.4	32.9	14.1	9.7	6.8	14.9		36.94	24	K, R	5512			
5.00	9.00	127.0	228.6	1 	108	57.8	36.9	15.6	10.7	7.6	16.7		41.74	24	K, R	5513			
5.00	10.00	127.0	254.0	1 							85.7	66.1	52.9	105	23.5	48.57	24	K, R	5182
5.00	10.00	127.0	254.0	1 	119	64.2	41.5	18.6	11.9	8.5	18.4		46.54	24	K, R	5514			
5.00	11.00	127.0	279.4	1 	131	70.5	44.9	19.2	12.8	9.4	20.3		51.34	24	K, R	5515			
5.00	12.00	127.0	304.8	1 	142	76.7	48.7	20.4	13.7	10.2	22.0		56.14	24	K, R	5516			
5.00	12.10	127.0	307.3	1 	377	190	114	54.8	37.5	26.3	58.4	13.1	56.40	24	K, R	5517			
5.00	15.00	127.0	381.0	1 							57.2	44.1	35.3	69.8	15.6	73.12	24	K, R	5183
5.00	15.97	127.0	405.6	8 	271	136	72.2	36.1	24.1	18.1	42.0	9.4	76.00	24	K, R	5518			
5.05	5.05	128.3	128.3	3 	227	113	68.6	32.3	22.6	15.8	35.2	7.9	23.60	24	K, R	5519			
5.05	5.05	128.3	128.3	3 	262	131	79.4	38.2	26.1	18.3	40.6	9.1	23.60	24	K, R	5520			
5.05	8.05	128.3	204.5	1 	953	476	288	138	94.8	66.4	148	33.2	38.30	26	K, R	5521			
5.05	10.10	128.3	256.5	1 	660	330	205	98.2	65.7	46.1	102	23.0	48.00	26	K, R	5522			
5.05	10.50	128.3	266.7	6 	784	392	237	114	78.1	55.2	122	27.3	50.00	26	K, R	5523			
5.10	12.10	129.5	307.3	1 	523	261	158	76.2	52.1	36.4	81.1	18.2	58.00	26	K, R	5524			
5.50	5.50	139.7	139.7	1 	50.0	25.7	14.2	6.4	4.6	3.4	7.8		29.17	26	K, R	5596			
5.50	7.00	139.7	177.8	1 	384	192	116	55.8	38.1	26.7	59.5	13.3	35.80	24	K, R	5525			
6.00	6.00	152.4	152.4	1 	174	87.0	48.7	22.6	17.4	12.2	27.0	6.0	34.38	24	K, R	5560			
6.06	8.06	153.9	204.7	6 	362	182	109	52.6	36.1	25.2	56.1	12.6	45.70	24	K, R	5526			
6.06	8.06	153.9	204.7	2 	630	315	190	91.5	62.6	43.8	97.7	21.9	46.10	26	K, R	5527			
6.90	9.00	175.3	228.6	2 	88.1	44.1	26.1	12.8	8.8	6.2	13.7		58.30	24	K, R	5528			
7.50	11.55	190.5	293.4	8 	2890	1446	874	420				448	101	74.00	26	K, R	5529		
7.90	18.30	200.7	464.8	8 	241	120	73.1	35.1	24.1	16.8	37.4	8.3	140.00	24	R	5530			
8.80	11.20	223.5	284.5	8 	220	110	66.5	31.9	21.8	15.3	34.1	7.6	94.40	24	K, R	5531			
9.00	12.00	228.6	304.8	3 	545	273	165	79.3	54.2	38.1	84.5	18.9	103.00	24	K, R	5532			
9.00	18.00	228.6	457.2	6 	184	92.1	55.6	26.7	18.3	12.8	28.5	6.4	156.00	24	R	5533			
10.00	10.00	254.0	254.0	1 							42.8	33.1	26.4	52.2	11.7	97.52	20	K, R	5184
10.00	15.00	254.0	381.0	1 							28.6	22.0	17.6	34.9	7.8	146.92	20	K, R	5185
10.00	18.00	254.0	457.2	1 	161	80.4	48.6	23.4	16.1	11.2	25.0	5.6	173.00	24	R	5534			
10.07	18.27	255.8	464.1	7 	327	163	98.9	47.5	32.5	22.7	50.7	11.3	177.00	24	R	5535			
10.70	11.00	271.8	279.4	6 	807	403	244	117	80.3	56.1	125	28.0	114.00	24	K, R	5536			
11.00	15.00	279.4	381.0	1 	200	103	56.6	25.5	18.5	13.6	31.0	6.9	158.56	20	K, R	5600			
0.50	0.09	12.7	2.4	31 	25.0	12.8	7.1							0.13	30	K	5186		
0.50		12.7		10 	26.1	13.1	7.8	3.8						0.15	30	K	5537		
0.75	0.12	19.1	3.1	31 	39.2	20.6	11.2	5.2	3.9	3.0	6.1		0.35	26	K, R	5593			
0.78		19.8		10 	32.2	16.1	9.7	4.7						0.32	30	K, R	5538		
0.78		19.8		10 	70.1	35.2	21.1	10.2				10.9		0.32	30	K	5539		
0.98	0.12	24.9	3.0	11 	37.2	18.6	11.3	5.4				5.8		0.65	24	K, R	5540		
1.00	0.09	25.4	2.4	31 	157	80.5	44.4	19.9	14.4	10.5	24.3	5.6	0.68	26	K	5187			
1.10	0.12	27.9	3.0	11 	61.1	30.5	18.5	8.9				9.5		0.66	24	K, R	5541		
1.18		30.0		30 	288	144	80.6	37.4	28.8	20.2	44.6	10.4	0.90	30	K	5561			
1.25	0.60	31.8	15.2	11 	84.4	42.2	25.5	12.3				13.1		0.59	26	K, R	5542		
1.32		33.5		10 	38.0	19.0	10.6	4.9	3.8				5.9		1.19	30	K, R	5562	
1.35	0.45	34.3	11.4	11 	156	78.1	47.2	22.7				24.2	5.6	0.96	30	K	5543		
1.50	0.12	38.1	3.1	31 	75.0	39.0	21.3	9.8	7.2	5.4	11.6		1.60	26	K, R	5597			
1.73		43.9		10 	227	114	68.7	33.1				35.2	8.0	2.00	30	K, R	5544		

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5 \Omega$, whichever is greater
 Rubber (HR) models not available with NiFe element

Kapton & Silicone Rubber Heaters

Size (in)		Size (mm)		Type	Resistance options in ohms*								Effective area (in ²)	Lead AWG	Insulation	Model number
X	Y	X	Y		R(0°C) [May be used with Heaterstat] → NiFe Ni											
1.75	0.12	44.5	3.0	11 	61.1	30.5	18.5	8.9	6.1	4.2	9.5		2.19	24	K, R	5545
1.85	0.12	47.0	3.0	11 	61.2	30.6	18.5	8.9	6.1	4.2	9.5		2.44	26	K, R	5546
1.90		48.3		10 	156	78.4	47.4	22.8			24.2	5.5	2.48	24	K, R	5547
2.00	0.12	50.8	3.1	31 	100	51.9	28.4	13.0	9.6	7.1	15.5		2.93	26	K, R	5598
2.13	1.12	54.1	28.4	11 	180	90.1	54.6	26.3			27.9	6.3	2.16	26	K, R	5548
2.45		62.2		10 	530	265	160	77.1			82.2	18.8	4.16	26	K, R	5549
2.85		72.4		10 	200	100	56.0	26.0	20.0	14.0	31.0	7.0	5.98	30	K, R	5563
3.00	0.12	76.2	3.1	31 	378	194	107	48.0	34.7	25.4	58.6	13.3	6.61	26	K, R	5188
3.40		86.4		10 	198	99.0	55.4	25.7	19.8	13.9	30.7	6.9	8.34	24	K, R	5564
3.72	2.09	94.5	53.1	11 	317	158	95.9	46.1	31.6	22.1	49.1	11.1	6.76	26	K, R	5550
4.30	3.42	109.2	86.9	11 	405	206	125	60.1			62.8	14.3	3.91	26	K, R	5551
4.75	2.50	120.7	63.5	11 	54.5	27.3	14.5	7.2	4.8	3.6	8.4		11.48	24	K, R	5552
6.00	0.12	152.4	3.1	11 	150	77.4	42.5	19.2	14.0	10.3	23.3	5.2	27.02	26	K, R	5599
6.25	2.00	158.8	50.8	11 	610	305	185	88.8	60.7	42.5	94.6	21.3	25.66	24	K, R	5553
6.75	4.75	171.5	120.7	11 	251	125	76.1	36.6	25.1	17.5	38.9	8.7	15.79	26	K, R	5554
7.06		179.3		10 	120	60.1	31.9	16.1	10.6	7.4	18.6		37.19	24	K, R	5555
8.25	4.32	209.6	109.7	11 	670	335	202	97.4	67.1	47.4	104	23.3	36.13	24	K, R	5556
9.00	3.00	228.6	76.2	11 	710	355	215	101	70.6	49.4	110	24.7	52.46	24	K, R	5557
9.60	0.90	243.8	22.9	11 	72.7	36.3	21.9	10.6	7.2	5.1	11.3		67.65	24	K, R	5558
10.00	0.25	254.0	6.4	11 	667	334	202	96.7	67.1	47.7	103	23.2	74.78	24	K, R	5559

*Resistance tolerance is $\pm 10\%$ or $\pm 0.5\Omega$, whichever is greater

Rubber (HR) models not available with NiFe element