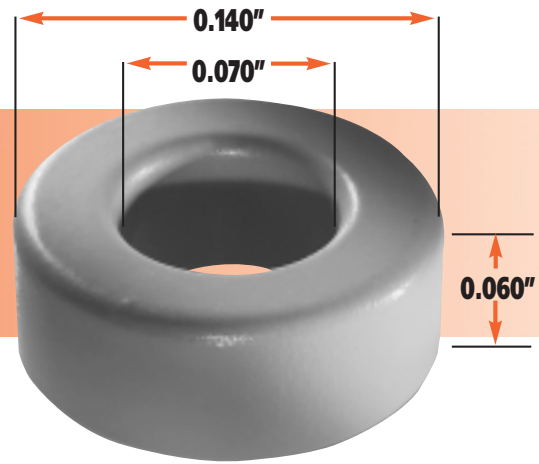


# 3.56 mm O.D.

## 1.78 mm I.D. x 1.52 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	4.19 mm	0.165 in
I.D. (min.)	1.27 mm	0.050 in
HT. (max.)	2.16 mm	0.085 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 15\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
60	13	-	-	77141
75	16	-	-	77445
90	19	-	-	77444
125	26	55140	-	77140
160	33	55138	-	-
200	42	55137	-	-
300	62	55135	-	-

### Physical Characteristics

Window Area	0.018 cm <sup>2</sup>	3,600 c.mils
Cross Section	0.0137 cm <sup>2</sup>	0.0021 in <sup>2</sup>
Path Length	0.817 cm	0.317 in
Volume	0.0112 cm <sup>3</sup>	0.00067 in <sup>3</sup>
Weight- MPP	0.094 gm	0.00019 lb
Weight- High Flux	-	-
Weight- Kool M $\mu$	0.069 gm	0.00014 lb
Area Product	0.0002 cm <sup>4</sup>	0.000006 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	0.698 cm	0.0229 ft
60%	0.658 cm	0.0216 ft
40%	0.619 cm	0.0203 ft
20%	0.600 cm	0.0197 ft
0%	0.594 cm	0.0195 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	4.95 mm	0.195 in
Max. HT. (u.w.f.)	2.74 mm	0.108 in

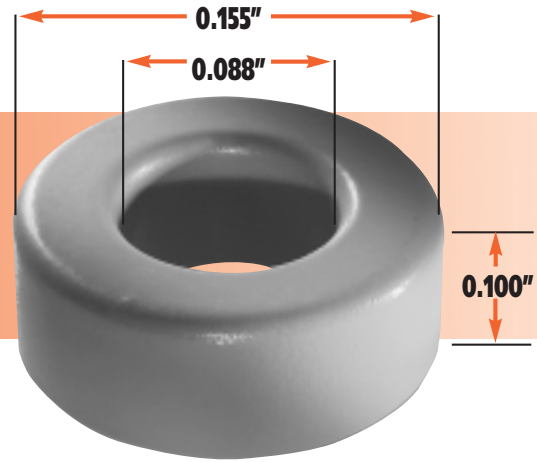
### Surface Area

Unwound Core	0.482 cm <sup>2</sup>	0.075 in <sup>2</sup>
40% Winding Factor	0.65 cm <sup>2</sup>	0.101 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
29	20	0.0373	11	0.0174
30	25	0.0595	13	0.0263
31	31	0.093	14	0.0357
32	37	0.137	16	0.0506
33	46	0.217	18	0.0723
34	59	0.353	21	0.107
35	73	0.553	24	0.155
36	91	0.865	28	0.227
37	111	1.3	31	0.31
38	138	2.05	35	0.442
39	178	3.45	40	0.661
40	225	5.51	46	0.96
41	277	8.37	52	1.34
42	353	13.4	59	1.91
43	428	21	66	2.76
44	493	29.2	72	3.64
45	679	52.1	84	4.78
46	818	78.9	92	7.55
47	947	114.7	102	10.5
48	1241	191.8	117	15.4

# 3.94 mm O.D.

## 2.24 mm I.D. x 2.54 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	4.57 mm	0.180 in
I.D. (min.)	1.73 mm	0.068 in
HT. (max.)	3.18 mm	0.125 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 15\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
60	17	-	-	77151
75	21	-	-	77155
90	25	-	-	77154
125	35	55150	-	77150
160	45	55148	-	-
200	56	55147	-	-
300	84	55145	-	-

### Physical Characteristics

Window Area	0.0308 cm <sup>2</sup>	6,080 c.mils
Cross Section	0.0211 cm <sup>2</sup>	0.00327 in
Path Length	0.942 cm	0.371 in
Volume	0.0199 cm <sup>3</sup>	0.00121 in <sup>3</sup>
Weight- MPP	0.172 gm	0.00038 lb
Weight- High Flux	-	-
Weight- Kool M $\mu$	0.122 gm	0.00027 lb
Area Product	0.0006 cm <sup>4</sup>	0.000015 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.049 cm	0.0344 ft
60%	0.989 cm	0.0324 ft
40%	0.929 cm	0.0305 ft
20%	0.903 cm	0.0296 ft
0%	0.894 cm	0.0293 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	5.77 mm	0.227 in
Max. HT. (u.w.f.)	4.75 mm	0.187 in

### Surface Area

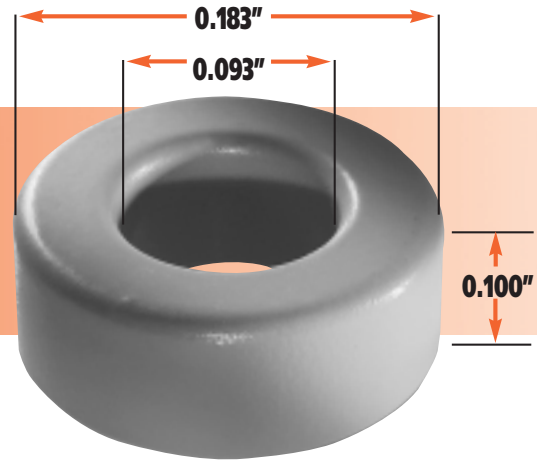
Unwound Core	0.76 cm <sup>2</sup>	0.118 in <sup>2</sup>
40% Winding Factor	1.2 cm <sup>2</sup>	0.186 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
28	24	0.0544	13	0.0249
29	30	0.0837	15	0.0357
30	37	0.1324	17	0.0518
31	46	0.205	20	0.0768
32	56	0.309	22	0.104
33	69	0.488	25	0.151
34	88	0.787	29	0.222
35	109	1.229	33	0.32
36	134	1.916	37	0.45
37	164	2.89	41	0.615
38	205	4.57	46	0.873
39	264	7.69	53	1.32
40	333	12.31	61	1.91
41	410	18.61	68	2.63
42	522	29.8	78	3.79
43	634	46.7	87	5.46
44	730	65	94	7.13
45	1005	115.9	110	10.8
46	1221	175.4	121	14.9
47	1480	269	134	20.8



# 4.65 mm O.D.

## 2.36 mm I.D. x 2.54 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	5.28 mm	0.208 in
I.D. (min.)	1.85 mm	0.073 in
HT. (max.)	3.18 mm	0.125 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 15\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
60	20	55181	-	77181
75	25	-	-	77185
90	30	-	-	77184
125	42	55180	-	77180
160	53	55178	-	-
200	67	55177	-	-
300	99	55175	-	-

### Physical Characteristics

Window Area	0.029 cm <sup>2</sup>	5,780 c.mils
Cross Section	0.0285 cm <sup>2</sup>	0.00442 in <sup>2</sup>
Path Length	1.062 cm	0.418 in
Volume	0.0303 cm <sup>3</sup>	0.00185 in <sup>3</sup>
Weight- MPP	0.25 gm	0.00056 lb
Weight- High Flux	-	-
Weight- Kool M $\mu$	0.18 gm	0.00041 lb
Area Product	0.0008 cm <sup>4</sup>	0.000020 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.143 cm	0.0375 ft
60%	1.083 cm	0.0355 ft
40%	1.024 cm	0.0336 ft
20%	0.998 cm	0.0327 ft
0%	0.988 cm	0.0324 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	6.65 mm	0.262 in
Max. HT. (u.w.f.)	4.94 mm	0.195 in

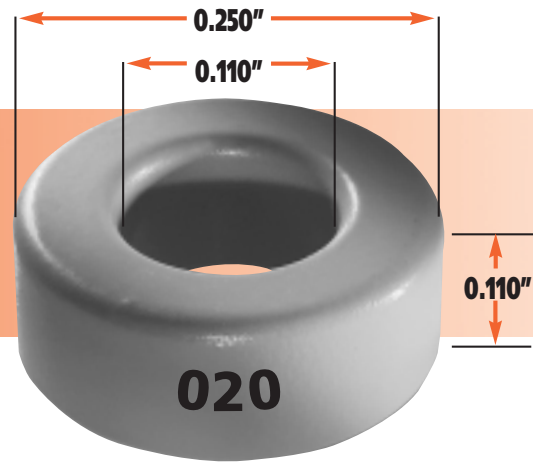
### Surface Area

Unwound Core	1.108 cm <sup>2</sup>	0.172 in <sup>2</sup>
40% Winding Factor	1.50 cm <sup>2</sup>	0.233 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
27	21	0.0412	11	0.0183
28	26	0.0643	13	0.0275
29	32	0.0989	15	0.0395
30	40	0.156	17	0.0572
31	49	0.243	19	0.0807
32	60	0.366	22	0.115
33	75	0.577	24	0.16
34	95	0.93	28	0.237
35	118	1.46	32	0.343
36	145	2.26	36	0.484
37	178	3.41	40	0.664
38	222	5.4	45	0.944
39	286	9.08	52	1.43
40	361	14.5	59	2.05
41	444	22	67	2.86
42	566	35.3	76	4.08
43	688	55.2	85	5.9
44	791	76.8	92	7.72
45	1090	137	107	11.6
46	1313	207	118	16.1

# 6.35 mm O.D.

## 2.79 mm I.D. x 2.79 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	6.99 mm	0.275 in
I.D. (min.)	2.29 mm	0.090 in
HT. (max.)	3.43 mm	0.135 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	6	55023	58023	-
26	10	55022	58022	-
60	24	55021	58021	77021
75	30	-	-	77825
90	36	-	-	77824
125	50	55020	58020	77020
160	64	55018	58018	-
200	80	55017	-	-
300	120	55015	-	-
550	220	55016	-	-

### Physical Characteristics

Window Area	0.0412 cm <sup>2</sup>	8,100 c.mils
Cross Section	0.0470 cm <sup>2</sup>	0.00729 in <sup>2</sup>
Path Length	1.361 cm	0.536 in
Volume	0.0640 cm <sup>3</sup>	0.00391 in <sup>3</sup>
Weight- MPP	0.588 gm	0.0013 lb
Weight- High Flux	0.553 gm	0.0012 lb
Weight- Kool M $\mu$	0.393 gm	0.0009 lb
Area Product	0.0019 cm <sup>4</sup>	0.000046 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.348 cm	0.0442 ft
60%	1.273 cm	0.0417 ft
40%	1.200 cm	0.0394 ft
20%	1.168 cm	0.0383 ft
0%	1.156 cm	0.0379 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	8.81 mm	0.347 in
Max. HT. (u.w.f.)	5.38 mm	0.212 in

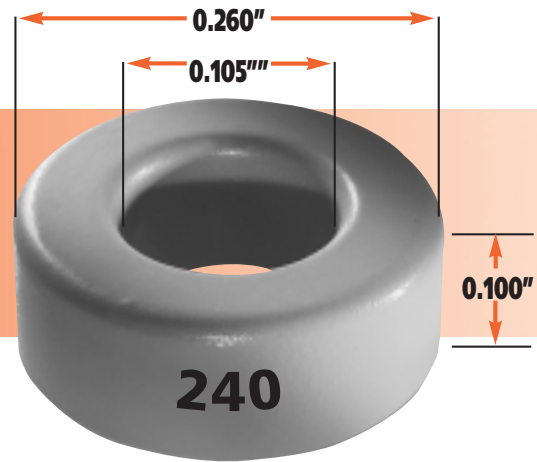
### Surface Area

Unwound Core	1.68 cm <sup>2</sup>	0.260 in <sup>2</sup>
40% Winding Factor	2.2 cm <sup>2</sup>	0.341 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
26	24	0.0432	12	0.0186
27	30	0.0682	14	0.0273
28	37	0.1063	16	0.0395
29	45	0.1635	18	0.0554
30	56	0.259	21	0.0828
31	69	0.401	23	0.114
32	84	0.604	26	0.16
33	105	0.953	30	0.235
34	133	1.54	34	0.336
35	165	2.42	38	0.477
36	204	3.74	44	0.691
37	249	5.64	48	0.931
38	312	8.92	54	1.33
39	401	15.01	62	1.99
40	506	24	71	2.87
41	623	36.4	80	4
42	794	58.3	91	5.72
43	964	91.2	101	8.19
44	1110	127	110	10.8
45	1528	226	128	16.2

# 6.60 mm O.D.

## 2.67 mm I.D. x 2.54 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	7.24 mm	0.285 in
I.D. (min.)	2.16 mm	0.085 in
HT. (max.)	3.18 mm	0.125 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	6	55243	58243	-
26	11	55242	58242	-
60	26	55241	58241	77241
75	32	-	-	77245
90	39	-	-	77244
125	54	55240	58240	77240
160	69	55238	58238	-
200	86	55237	-	-
300	130	55235	-	-
550	242	55236	-	-

### Physical Characteristics

Window Area	0.0412 cm <sup>2</sup>	8,100 c.mils
Cross Section	0.0476 cm <sup>2</sup>	0.00738 in <sup>2</sup>
Path Length	1.363 cm	0.537 in
Volume	0.0649 cm <sup>3</sup>	0.00396 in <sup>3</sup>
Weight- MPP	0.58 gm	0.0013 lb
Weight- High Flux	0.55 gm	0.0012 lb
Weight- Kool M $\mu$	0.399 gm	0.00088 lb
Area Product	0.0020 cm <sup>4</sup>	0.000047 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.327 cm	0.0435 ft
60%	1.251 cm	0.0410 ft
40%	1.176 cm	0.0386 ft
20%	1.144 cm	0.0375 ft
0%	1.132 cm	0.0371 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	9.12 mm	0.359 in
Max. HT. (u.w.f.)	5.13 mm	0.202 in

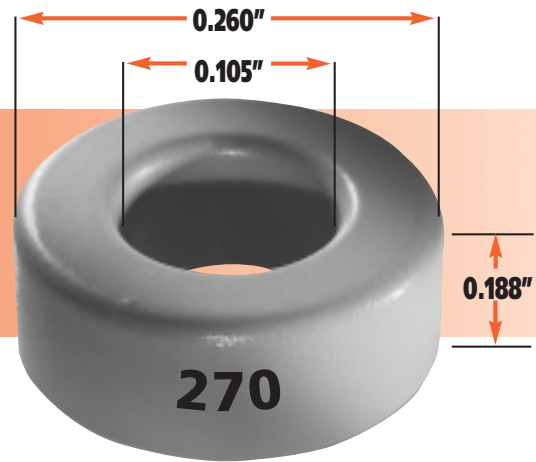
### Surface Area

Unwound Core	0.264 in <sup>2</sup>	1.70 cm <sup>2</sup>
40% Winding Factor	0.357 in <sup>2</sup>	2.3 cm <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
26	24	0.0425	12	0.0183
27	30	0.0671	14	0.0267
28	37	0.1046	16	0.0388
29	45	0.1609	18	0.0542
30	56	0.255	21	0.81
31	69	0.395	23	0.112
32	84	0.595	26	0.156
33	105	0.938	30	0.229
34	133	1.513	34	0.329
35	165	2.38	39	0.479
36	204	3.68	44	0.677
37	249	5.55	48	0.912
38	312	8.78	54	1.3
39	401	14.8	62	1.95
40	506	23.7	71	2.82
41	623	35.8	80	3.92
42	794	57.3	91	5.6
43	964	89.8	101	8.02
44	1110	125	110	10.6
45	1528	223	128	15.9

# 6.60 mm O.D.

## 2.67 mm I.D. x 4.78 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	7.24 mm	0.285 in
I.D. (min.)	2.16 mm	0.085 in
HT. (max.)	5.54 mm	0.213 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	12	55273	58273	-
26	21	55272	58272	-
60	50	55271	58271	77271
75	62	-	-	77875
90	74	-	-	77874
125	103	55270	58270	77270
160	132	55268	58268	-
200	165	55267	-	-
300	247	55265	-	-
550	466	55266	-	-

### Physical Characteristics

Window Area	0.0384 cm <sup>2</sup>	7,570 c.mils
Cross Section	0.0920 cm <sup>2</sup>	0.01426 in <sup>2</sup>
Path Length	1.363 cm	0.537 in
Volume	0.1254 cm <sup>3</sup>	0.00765 in <sup>3</sup>
Weight- MPP	1.09 gm	0.0024 lb
Weight- High Flux	1.03 gm	0.0023 lb
Weight- Kool M $\mu$	0.771 gm	0.0017 lb
Area Product	0.0035 cm <sup>4</sup>	0.000085 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.754 cm	0.0575 ft
60%	1.701 cm	0.0558 ft
40%	1.650 cm	0.0541 ft
20%	1.628 cm	0.0534 ft
0%	1.620 cm	0.0531 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	9.17 mm	0.361 in
Max. HT. (u.w.f.)	7.42 mm	0.292 in

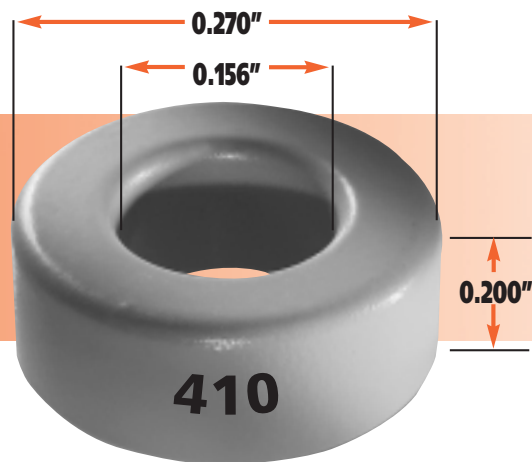
### Surface Area

Unwound Core	2.41 cm <sup>2</sup>	0.375 in <sup>2</sup>
40% Winding Factor	2.9 cm <sup>2</sup>	0.450 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
26	22	0.0525	12	0.0262
27	28	0.0828	13	0.0355
28	34	0.1292	16	0.0555
29	42	0.1988	17	0.0733
30	53	0.314	20	0.11
31	65	0.487	22	0.153
32	79	0.734	25	0.215
33	98	1.158	28	0.307
34	124	1.868	33	0.457
35	154	2.94	37	0.651
36	191	4.55	42	0.925
37	233	6.86	46	1.25
38	291	10.85	52	1.78
39	375	18.25	60	2.69
40	473	29.2	68	3.86
41	582	44.2	77	5.4
42	742	70.8	87	7.67
43	901	110.9	98	11.1
44	1037	154.4	106	14.6
45	1428	275	123	21.9

# 6.86 mm O.D.

## 3.96 mm I.D. x 5.08 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	7.49 mm	0.295 in
I.D. (min.)	3.45 mm	0.136 in
HT. (max.)	5.71 mm	0.225 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	8	55413	58413	-
26	14	55412	58412	-
60	33	55411	58411	77411
75	42	-	-	77415
90	50	-	-	77414
125	70	55410	58410	77410
160	89	55408	58408	-
200	112	55407	-	-
300	166	55405	-	-

### Physical Characteristics

Window Area	0.0934 cm <sup>2</sup>	18,500 c.mils
Cross Section	0.0725 cm <sup>2</sup>	0.01124 in <sup>2</sup>
Path Length	1.65 cm	0.650 in
Volume	0.1196 cm <sup>3</sup>	0.00731 in <sup>3</sup>
Weight- MPP	1.0 gm	0.0022 lb
Weight- High Flux	0.94 gm	0.0021 lb
Weight- Kool M $\mu$	0.736 gm	0.0016 lb
Area Product	0.0067 cm <sup>4</sup>	0.000161 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.786 cm	0.0586 ft
60%	1.698 cm	0.0557 ft
40%	1.612 cm	0.0529 ft
20%	1.579 cm	0.0518 ft
0%	1.561 cm	0.0512 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	9.60 mm	0.378 in
Max. HT. (u.w.f.)	10.0 mm	0.394 in

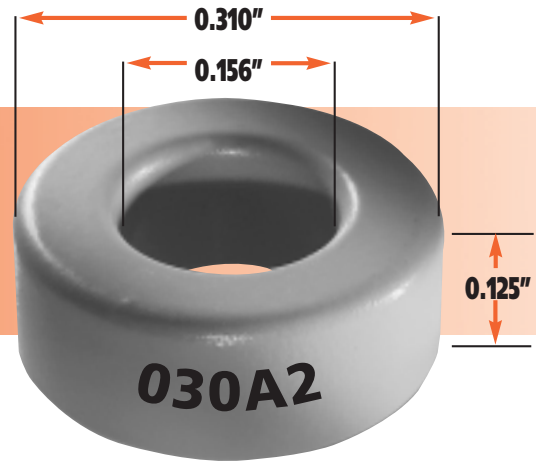
### Surface Area

Unwound Core	2.7 cm <sup>2</sup>	0.419 in <sup>2</sup>
40% Winding Factor	3.2 cm <sup>2</sup>	0.496 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
26	55	0.1321	20	0.042
27	69	0.208	23	0.0605
28	85	0.325	26	0.0869
29	103	0.49	29	0.121
30	129	0.786	33	0.176
31	159	1.221	37	0.248
32	193	1.832	41	0.34
33	239	2.89	46	0.485
34	305	4.66	53	0.708
35	378	7.33	60	1.02
36	466	11.33	67	1.42
37	570	17.1	73	1.91
38	712	27	83	2.75
39	916	45.5	95	4.12
40	1157	72.5	108	5.92
41	1424	110.1	121	8.18
42	1814	176.5	138	11.7
43	2203	276	153	16.8
44	2535	385	166	22
45	3491	685	195	33.4

# 7.87 mm O.D.

## 3.96 mm I.D. x 3.18 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	8.51 mm	0.335 in
I.D. (min.)	3.45 mm	0.136 in
HT. (max.)	3.81 mm	0.150 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	6	55033	58033	-
26	11	55032	58032	-
60	25	55031	58031	77031
75	31	-	-	77835
90	37	-	-	77834
125	52	55030	58030	77030
160	66	55028	58028	-
200	83	55027	-	-
300	124	55025	-	-
550	229	55026	-	-

### Physical Characteristics

Window Area	0.0922 cm <sup>2</sup>	18,200 c.mils
Cross Section	0.0615 cm <sup>2</sup>	0.00953 in <sup>2</sup>
Path Length	1.787 cm	0.704 in
Volume	0.1099 cm <sup>3</sup>	0.00671 in <sup>3</sup>
Weight- MPP	0.92 gm	0.0020 lb
Weight- High Flux	0.87 gm	0.0019 lb
Weight- Kool M $\mu$	0.676 gm	0.0015 lb
Area Product	0.0057 cm <sup>4</sup>	0.000136 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.598 cm	0.0524 ft
60%	1.471 cm	0.0482 ft
40%	1.347 cm	0.0442 ft
20%	1.292 cm	0.0424 ft
0%	1.272 cm	0.0417 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	11.0 mm	0.433 in
Max. HT. (u.w.f.)	6.73 mm	0.265 in

### Surface Area

Unwound Core	2.38 cm <sup>2</sup>	0.369 in <sup>2</sup>
40% Winding Factor	3.2 cm <sup>2</sup>	0.496 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
22	23	0.0191	12	0.0082
23	28	0.0298	13	0.0109
24	35	0.0467	15	0.016
25	43	0.0728	18	0.0243
26	54	0.1152	20	0.0342
27	68	0.1818	23	0.0493
28	83	0.284	26	0.0707
29	101	0.436	29	0.0982
30	127	0.69	33	0.143
31	156	1.069	37	0.202
32	190	1.612	41	0.277
33	235	2.54	46	0.395
34	300	4.1	53	0.577
35	372	6.45	60	0.828
36	459	9.98	67	1.16
37	561	15.04	73	1.56
38	701	23.8	83	2.24
39	902	40	95	3.79
40	1139	64.1	108	4.82
41	1402	97	121	6.65

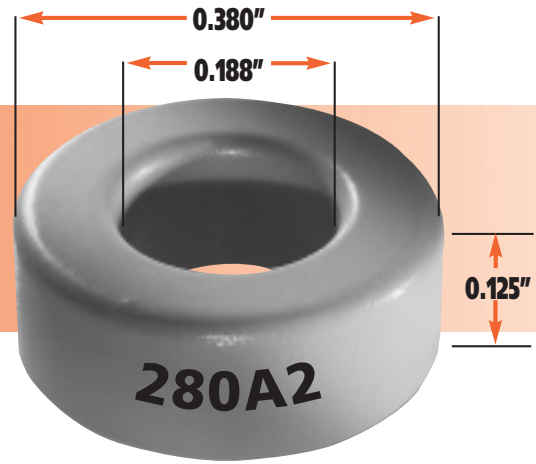
Core Data





# 9.65 mm O.D.

## 4.78 mm I.D. x 3.18 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	10.29 mm	0.405 in
I.D. (min.)	4.27 mm	0.168 in
HT. (max.)	3.81 mm	0.150 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	6	55283	58283	-
26	11	55282	58282	-
60	25	55281	58281	77281
75	32	-	-	77885
90	38	-	-	77884
125	53	55280	58280	77280
160	68	55278	58278	-
200	84	55277	-	-
300	128	55275	-	-
550	232	55276	-	-

### Physical Characteristics

Window Area	0.1429 cm <sup>2</sup>	28,200 c.mils
Cross Section	0.0752 cm <sup>2</sup>	0.01166 in <sup>2</sup>
Path Length	2.18 cm	0.858 in
Volume	0.1639 cm <sup>3</sup>	0.0100 in <sup>3</sup>
Weight- MPP	1.4 gm	0.0030 lb
Weight- High Flux	1.3 gm	0.0028 lb
Weight- Kool M $\mu$	1.008 gm	0.00222 lb
Area Product	0.0107 cm <sup>4</sup>	0.000258 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.793 cm	0.0588 ft
60%	1.627 cm	0.0533 ft
40%	1.465 cm	0.0480 ft
20%	1.393 cm	0.0457 ft
0%	1.366 cm	0.0448 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	13.4 mm	0.526 in
Max. HT. (u.w.f.)	7.44 mm	0.293 in

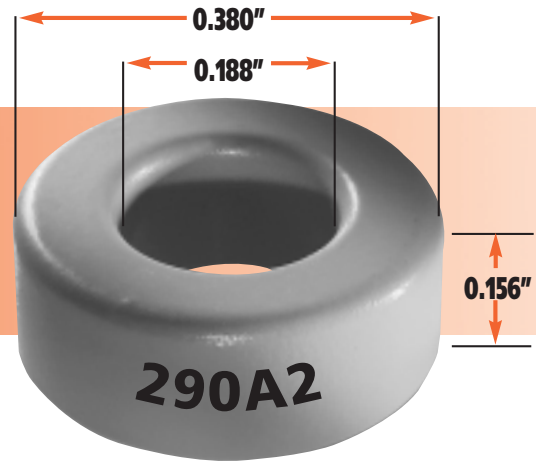
### Surface Area

Unwound Core	3.12 cm <sup>2</sup>	0.483 in <sup>2</sup>
40% Winding Factor	4.4 cm <sup>2</sup>	0.682 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
20	23	0.01345	12	0.0054
21	28	0.0212	13	0.0074
22	35	0.0332	15	0.0108
23	43	0.0518	18	0.0164
24	54	0.0812	20	0.0231
25	66	0.1265	23	0.0334
26	83	0.2	26	0.0478
27	105	0.316	29	0.0668
28	128	0.493	33	0.0966
29	157	0.758	37	0.135
30	196	1.199	42	0.195
31	241	1.858	47	0.276
32	294	2.8	52	0.377
33	365	4.42	58	0.535
34	464	7.12	67	0.783
35	576	11.21	75	1.11
36	711	17.3	84	1.57
37	868	26.1	92	2.11
38	1086	41.4	104	3.02
39	1397	69.6	119	4.52

# 9.65 mm O.D.

## 4.78 mm I.D. x 3.96 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	10.29 mm	0.405 in
I.D. (min.)	4.27 mm	0.168 in
HT. (max.)	4.60 mm	0.181 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	7	55293	58293	-
26	14	55292	58292	-
60	32	55291	58291	77291
75	40	-	-	77295
90	48	-	-	77294
125	66	55290	58290	77290
160	84	55288	58288	-
200	105	55287	-	-
300	159	55285	-	-
550	290	55286	-	-

### Physical Characteristics

Window Area	0.1429 cm <sup>2</sup>	28,200 c.mils
Cross Section	0.0945 cm <sup>2</sup>	0.01465 in <sup>2</sup>
Path Length	2.18 cm	0.859 in
Volume	0.206 cm <sup>3</sup>	0.0126 in <sup>3</sup>
Weight- MPP	1.8 gm	0.0039 lb
Weight- High Flux	1.7 gm	0.0037 lb
Weight- Kool M $\mu$	1.44 gm	0.0032 lb
Area Product	0.0135 cm <sup>4</sup>	0.000325 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.928 cm	0.0632 ft
60%	1.768 cm	0.0580 ft
40%	1.613 cm	0.0529 ft
20%	1.545 cm	0.0506 ft
0%	1.519 cm	0.0498 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	13.4 mm	0.526 in
Max. HT. (u.w.f.)	8.20 mm	0.323 in

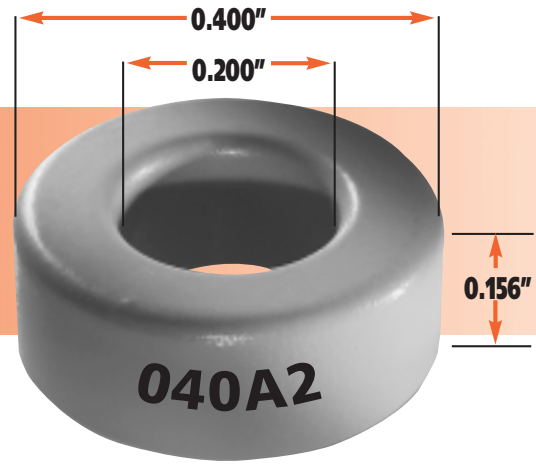
### Surface Area

Unwound Core	3.46 cm <sup>2</sup>	0.537 in <sup>2</sup>
40% Winding Factor	4.7 cm <sup>2</sup>	0.729 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
20	23	0.01446	12	0.00605
21	28	0.0228	13	0.00826
22	35	0.0357	15	0.012
23	43	0.0557	18	0.0182
24	54	0.0873	20	0.0256
25	66	0.136	23	0.0371
26	83	0.215	26	0.0531
27	105	0.34	29	0.0743
28	128	0.529	33	0.107
29	157	0.815	37	0.15
30	196	1.288	42	0.217
31	241	1.997	47	0.307
32	294	3.01	52	0.42
33	365	4.75	58	0.594
34	464	7.66	67	0.871
35	576	12.05	75	1.24
36	711	18.65	84	1.74
37	868	28.1	92	2.34
38	1086	44.5	104	3.35
39	1397	74.8	119	5.02

# 10.2 mm O.D.

## 5.08 mm I.D. x 3.96 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	10.80 mm	0.425 in
I.D. (min.)	4.57 mm	0.180 in
HT. (max.)	4.60 mm	0.181 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	7	55043	58043	-
26	14	55042	58042	-
60	32	55041	58041	77041
75	40	-	-	77845
90	48	-	-	77844
125	66	55040	58040	77040
160	84	55038	58038	-
200	105	55037	-	-
300	159	55035	-	-
550	290	55036	-	-

### Physical Characteristics

Window Area	0.164 cm <sup>2</sup>	32,400 c.mils
Cross Section	0.1000 cm <sup>2</sup>	0.01550 in <sup>2</sup>
Path Length	2.38 cm	0.906 in
Volume	0.238 cm <sup>3</sup>	0.014 in <sup>3</sup>
Weight- MPP	1.91 gm.	0.0041 lb
Weight- High Flux	1.80 gm	0.0039 lb
Weight- Kool M $\mu$	1.46 gm	0.0032 lb
Area Product	0.0164 cm <sup>4</sup>	0.000395 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	1.986 cm	0.0651 ft
60%	1.811 cm	0.0594 ft
40%	1.640 cm	0.0538 ft
20%	1.566 cm	0.0513 ft
0%	1.537 cm	0.0504 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	14.1 mm	0.554 in
Max. HT. (u.w.f.)	8.46 mm	0.333 in

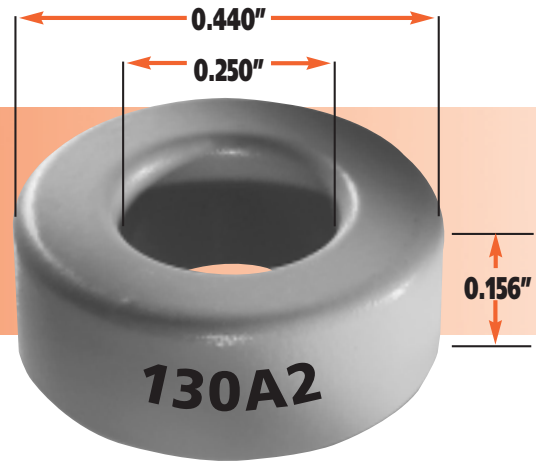
### Surface Area

Unwound Core	3.703 cm <sup>2</sup>	0.574 in <sup>2</sup>
40% Winding Factor	5.1 cm <sup>2</sup>	0.791 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
20	26	0.01709	13	0.00663
21	32	0.0267	15	0.00968
22	40	0.0422	17	0.0139
23	50	0.0659	19	0.0195
24	62	0.1032	22	0.0285
25	76	0.1608	25	0.0408
26	95	0.254	28	0.0579
27	120	0.402	31	0.0804
28	147	0.626	36	0.119
29	180	0.963	40	0.164
30	225	1.523	45	0.236
31	277	2.36	50	0.33
32	338	3.56	56	0.457
33	419	5.61	63	0.654
34	533	9.05	72	0.947
35	661	14.25	81	1.35
36	816	22	91	1.9
37	1000	33.3	99	2.56
38	1246	52.6	112	3.66
39	1604	88.4	128	5.46

# 11.2 mm O.D.

## 6.35 mm I.D. x 3.96 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	11.81 mm	0.465 in
I.D. (min.)	5.84 mm	0.230 in
HT. (max.)	4.60 mm	0.181 in

Permeability ( $\mu$ )	$A_L \pm 8\%$ Kool M $\mu$ $A_L \pm 12\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	6	55133	58133	-
26	11	55132	58132	-
60	26	55131	58131	77131
75	32	-	-	77335
90	38	-	-	77334
125	53	55130	58130	77130
160	68	55128	58128	-
200	85	55127	-	-
300	127	55	-	-

### Physical Characteristics

Window Area	0.273 cm <sup>2</sup>	53,800 c.mils
Cross Section	0.0906 cm <sup>2</sup>	0.0140 in <sup>2</sup>
Path Length	2.69 cm	1.08 in
Volume	0.2437 cm <sup>3</sup>	0.01487 in <sup>3</sup>
Weight- MPP	2.12 gm	0.0046 lb
Weight- High Flux	1.99 gm	0.0043 lb
Weight- Kool M $\mu$	1.499 gm	0.0033 lb
Area Product	0.0247 cm <sup>4</sup>	0.000592 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	2.195 cm	0.0720 ft
60%	1.942 cm	0.0637 ft
40%	1.695 cm	0.0556 ft
20%	1.585 cm	0.0520 ft
0%	1.545 cm	0.0507 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	15.7 mm	0.618 in
Max. HT. (u.w.f.)	9.0 mm	0.353 in

### Surface Area

Unwound Core	4.31 cm <sup>2</sup>	0.669 in <sup>2</sup>
40% Winding Factor	6.0 cm <sup>2</sup>	0.936 in <sup>2</sup>

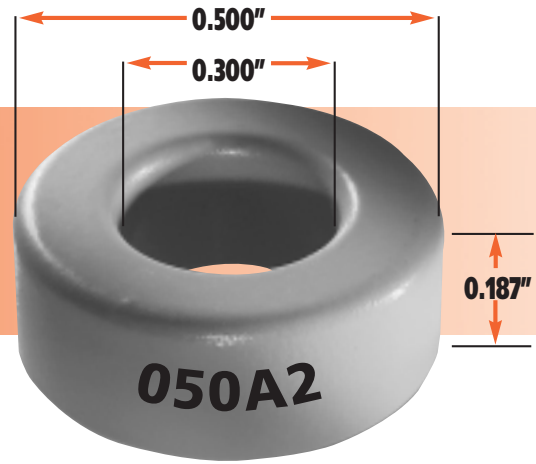
AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
16	17	0.00533	10	0.00203
17	22	0.00808	11	0.00282
18	28	0.01276	13	0.00422
19	34	0.02	15	0.00612
20	43	0.03192	17	0.00873
21	54	0.04958	20	0.013
22	66	0.07747	23	0.0188
23	83	0.121	26	0.0268
24	102	0.1896	29	0.0378
25	127	0.295	33	0.0543
26	158	0.467	37	0.077
27	199	0.737	42	0.109
28	245	1.15	47	0.155
29	299	1.747	52	0.214
30	374	2.8	59	0.311
31	460	4.34	66	0.438
32	560	6.54	73	0.6
33	695	10.31	82	0.856
34	885	16.63	93	1.23
35	1098	26.2	105	1.76

Core Data



# 12.7 mm O.D.

## 7.62 mm I.D. x 4.75 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	13.46 mm	0.530 in
I.D. (min.)	6.99 mm	0.275 in
HT. (max.)	5.51 mm	0.217 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	6.4	55053	58053	-
26	12	55052	58052	-
60	27	55051	58051	77051
75	34	-	-	77055
90	40	-	-	77054
125	56	55050	58050	77050
160	72	55048	58048	-
200	90	55047	-	-
300	134	55045	-	-
550	255	55046	-	-

### Physical Characteristics

Window Area	0.383 cm <sup>2</sup>	75,600 c.mils
Cross Section	0.1140 cm <sup>2</sup>	0.01767 in <sup>2</sup>
Path Length	3.12 cm	1.229 in
Volume	0.356 cm <sup>3</sup>	0.0217 in <sup>3</sup>
Weight- MPP	3.07 gm	0.0064 lb
Weight- High Flux	2.90 gm	0.0060 lb
Weight- Kool M $\mu$	2.20 gm.	0.0049 lb
Area Product	0.0437 cm <sup>4</sup>	0.001049 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	2.49 cm	0.0815 ft
60%	2.20 cm	0.0721 ft
40%	1.920 cm	0.0629 ft
20%	1.797 cm	0.0589 ft
0%	1.751 cm	0.0574 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	18.2 mm	0.717 in
Max. HT. (u.w.f.)	11.5 mm	0.451 in

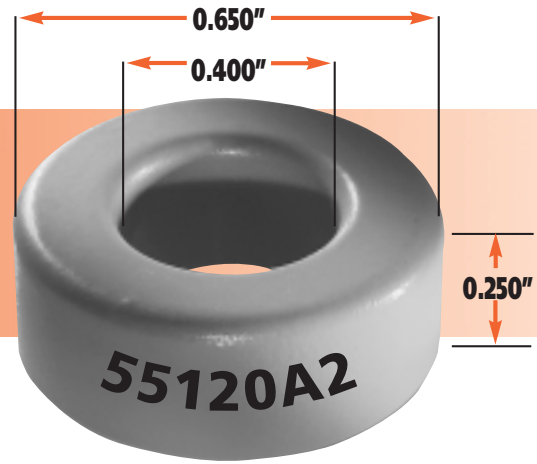
### Surface Area

Unwound Core	5.60 cm <sup>2</sup>	0.870 in <sup>2</sup>
40% Winding Factor	8.1 cm <sup>2</sup>	1.26 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
16	25	0.00826	12	0.00276
17	31	0.0129	14	0.00406
18	39	0.0203	16	0.00587
19	48	0.0318	19	0.00877
20	61	0.05	21	0.0122
21	76	0.0789	24	0.0176
22	93	0.1233	28	0.026
23	116	0.1925	31	0.0362
24	144	0.302	35	0.0516
25	178	0.47	40	0.0744
26	222	0.743	45	0.106
27	280	1.173	50	0.148
28	344	1.829	56	0.21
29	420	2.81	63	0.293
30	525	4.45	71	0.434
31	646	6.9	79	0.594
32	788	10.4	87	0.809
33	977	16.4	98	1.16
34	1244	26.5	112	1.68
35	1543	41.6	125	2.37

# 16.5 mm O.D.

## 10.2 mm I.D. x 6.35 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	17.40 mm	0.680 in
I.D. (min.)	9.53 mm	0.375 in
HT. (max.)	7.11 mm	0.280 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	8	55123	58123	-
26	15	55122	58122	-
60	35	55121	58121	77121
75	43	-	-	77225
90	52	-	-	77224
125	72	55120	58120	77120
160	92	55118	58118	-
200	115	55117	-	-
300	173	55115	-	-
550	317	55116	-	-

### Physical Characteristics

Window Area	0.713 cm <sup>2</sup>	140,600 c.mils
Cross Section	0.1920 cm <sup>2</sup>	0.0298 in <sup>2</sup>
Path Length	4.11 cm	1.619 in
Volume	0.789 cm <sup>3</sup>	0.048 in <sup>3</sup>
Weight- MPP	6.78 gm	0.015 lb
Weight- High Flux	6.34 gm	0.014 lb
Weight- Kool M $\mu$	4.98 gm	0.011 lb
Area Product	0.1369 cm <sup>4</sup>	0.0029 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	3.22 cm	0.1057 ft
60%	2.82 cm	0.0926 ft
40%	2.44 cm	0.0798 ft
20%	2.26 cm	0.0742 ft
0%	2.20 cm	0.0721 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	23.7 mm	0.932 in
Max. HT. (u.w.f.)	15.2 mm	0.599 in

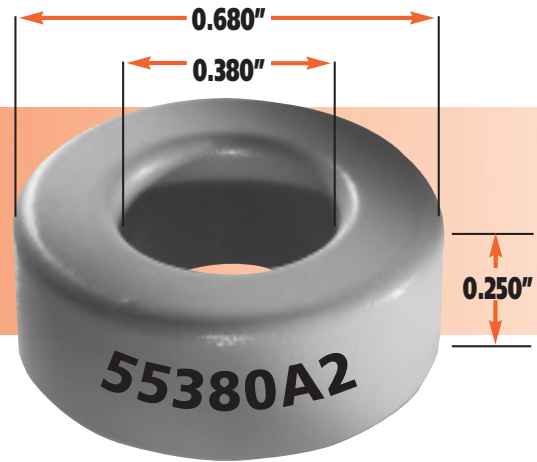
### Surface Area

Unwound Core	9.2 cm <sup>2</sup>	1.43 in <sup>2</sup>
40% Winding Factor	13.6 cm <sup>2</sup>	2.11 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
13	24	0.00508	12	0.00174
14	30	0.008	14	0.00254
15	37	0.01257	16	0.00366
16	47	0.01992	18	0.00522
17	58	0.031	21	0.00765
18	72	0.049	24	0.0111
19	90	0.0767	27	0.0157
20	113	0.1205	30	0.0219
21	141	0.1903	34	0.0314
22	174	0.297	39	0.0455
23	216	0.464	44	0.0644
24	268	0.728	49	0.0906
25	331	1.133	56	0.131
26	414	1.792	63	0.189
27	521	2.83	70	0.26
28	639	4.41	78	0.368
29	781	6.79	87	0.51
30	977	10.74	98	0.735
31	1202	16.64	108	1.02
32	1465	25.1	121	1.41

# 17.3 mm O.D.

## 9.65 mm I.D. x 6.35 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	18.03 mm	0.710 in
I.D. (min.)	9.02 mm	0.355 in
HT. (max.)	7.11 mm	0.280 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	10	55383	58383	-
26	19	55382	58382	-
60	43	55381	58381	77381
75	53	-	-	77385
90	64	-	-	77384
125	89	55380	58380	77380
160	114	55378	58378	-
200	142	55377	-	-
300	214	55375	-	-

### Physical Characteristics

Window Area	0.576 cm <sup>2</sup>	126,000 c.mils
Cross Section	0.232 cm <sup>2</sup>	0.0360 in <sup>2</sup>
Path Length	4.14 cm	1.63 in
Volume	0.960 cm <sup>3</sup>	0.059 in <sup>3</sup>
Weight- MPP	8.16 gm	0.018 lb
Weight- High Flux	7.7 gm	0.017 lb
Weight- Kool M $\mu$	5.9 gm	0.013 lb
Area Product	0.134 cm <sup>4</sup>	0.00321 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	3.67 cm	0.1204 ft
60%	3.15 cm	0.1032 ft
40%	2.64 cm	0.0864 ft
20%	2.41 cm	0.0791 ft
0%	2.33 cm	0.0763 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	24.9 mm	0.980 in
Max. HT. (u.w.f.)	16.3 mm	0.641 in

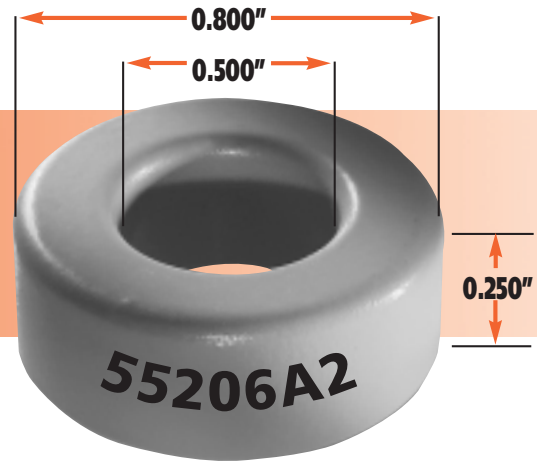
### Surface Area

Unwound Core	9.9 cm <sup>2</sup>	1.53 in <sup>2</sup>
40% Winding Factor	14.7 cm <sup>2</sup>	2.28 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
13	21	0.00506	11	0.00167
14	26	0.00789	13	0.0025
15	33	0.0126	15	0.00364
16	42	0.0203	17	0.00521
17	52	0.0316	19	0.00732
18	64	0.0492	22	0.0107
19	80	0.0775	25	0.0154
20	100	0.122	29	0.0224
21	126	0.194	32	0.0215
22	155	0.302	37	0.0313
23	193	0.472	41	0.0457
24	240	0.743	46	0.0635
25	296	1.15	52	0.0902
26	370	1.83	59	0.129
27	466	2.88	66	0.185
28	572	4.49	74	0.259
29	700	6.84	82	0.369
30	875	10.96	92	0.508
31	1076	16.97	102	0.73
32	1312	25.6	114	1.02

# 20.3 mm O.D.

## 12.7 mm I.D. x 6.35 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	21.1 mm	0.830 in
I.D. (min.)	12.07 mm	0.475 in
HT. (max.)	7.11 mm	0.280 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	7.8	55209	58209	-
26	14	55208	58208	-
60	32	55848	58848	77848
75	41	-	-	77211
90	49	-	-	77210
125	68	55206	58206	77206
160	87	55204	58204	-
200	109	55203	-	-
300	163	55201	-	-
550	320	55202	-	-

### Physical Characteristics

Window Area	1.14 cm <sup>2</sup>	225,600 c.mils
Cross Section	0.226 cm <sup>2</sup>	0.0350 in <sup>2</sup>
Path Length	5.09 cm	2.01 in
Volume	1.15 cm <sup>3</sup>	0.0703 in <sup>3</sup>
Weight- MPP	9.4 gm	0.023 lb
Weight- High Flux	8.9 gm	0.022 lb
Weight- Kool M $\mu$	7.1 gm	0.016 lb
Area Product	0.258 cm <sup>4</sup>	0.00620 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	3.67 cm	0.1204 ft
60%	3.15 cm	0.1032 ft
40%	2.64 cm	0.0864 ft
20%	2.41 cm	0.0791 ft
0%	2.33 cm	0.0763 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	29.2 mm	1.148 in
Max. HT. (u.w.f.)	17.4 mm	0.648 in

### Surface Area

Unwound Core	12.1 cm <sup>2</sup>	1.88 in <sup>2</sup>
40% Winding Factor	18.9 cm <sup>2</sup>	2.93 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
11	25	0.00374	12	0.001354
12	31	0.00591	14	0.0017
13	39	0.00929	16	0.00245
14	48	0.01463	18	0.00347
15	60	0.023	21	0.0051
16	75	0.0364	24	0.00736
17	93	0.0567	27	0.0104
18	116	0.0895	31	0.0151
19	145	0.1402	35	0.0215
20	181	0.22	39	0.0301
21	226	0.348	45	0.0439
22	279	0.543	50	0.0618
23	347	0.848	56	0.0867
24	430	1.33	63	0.124
25	531	2.07	71	0.176
26	664	3.28	80	0.25
27	836	5.17	89	0.349
28	1026	8.06	100	0.498
29	1253	12.41	111	0.688
30	1567	19.62	125	0.992

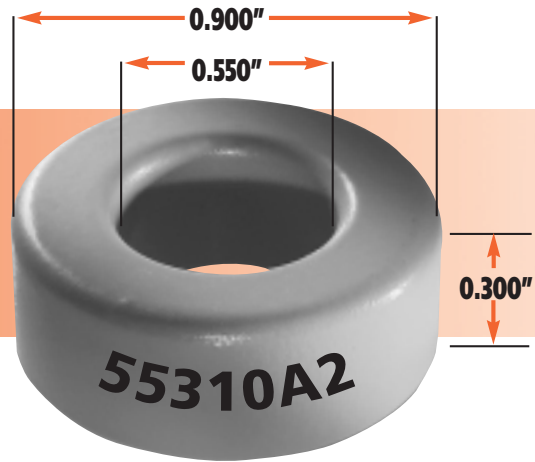
Core Data





# 22.9 mm O.D.

## 14.0 mm I.D. x 7.62 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	23.6 mm	0.930 in
I.D. (min.)	13.34 mm	0.525 in
HT. (max.)	8.38 mm	0.330 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool $M\mu$
14	9.9	55313	58313	-
26	19	55312	58312	77312
60	43	55059	58059	77059
75	54	-	-	77315
90	65	-	-	77314
125	90	55310	58310	77310
160	115	55308	58308	-
200	144	55307	-	-
300	216	55305	-	-
550	396	55306	-	-

### Physical Characteristics

Window Area	1.41 cm <sup>2</sup>	277,700 c.mils
Cross Section	0.331 cm <sup>2</sup>	0.0513 in <sup>2</sup>
Path Length	5.67 cm	2.23 in
Volume	1.88 cm <sup>3</sup>	0.114 in <sup>3</sup>
Weight- MPP	15.9 gm	0.034 lb
Weight- High Flux	15.0 gm	0.032 lb
Weight- Kool $M\mu$	11.5 gm	0.025 lb
Area Product	0.467 cm <sup>4</sup>	0.01119 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	4.29 cm	0.1405 ft
60%	3.67 cm	0.1203 ft
40%	3.07 cm	0.1005 ft
20%	2.80 cm	0.0919 ft
0%	2.70 cm	0.0886 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	32.6 mm	1.283 in
Max. HT. (u.w.f.)	19.8 mm	0.778 in

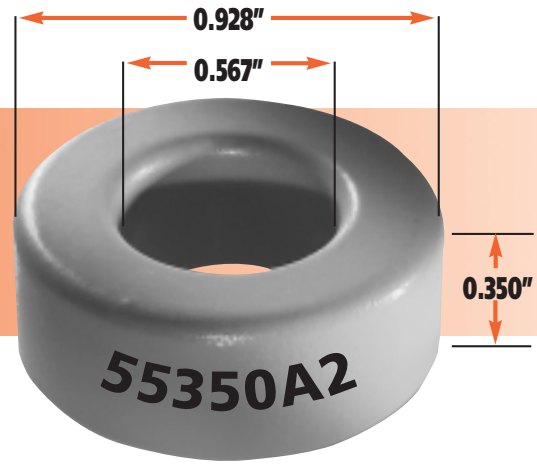
### Surface Area

Unwound Core	15.7 cm <sup>2</sup>	2.43 in <sup>2</sup>
40% Winding Factor	23.8 cm <sup>2</sup>	3.69 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
10	24	0.00339	12	0.00106
11	30	0.00537	14	0.00156
12	38	0.00849	16	0.00226
13	47	0.01334	18	0.0032
14	59	0.0211	21	0.0047
15	74	0.033	24	0.00676
16	93	0.0523	27	0.00961
17	115	0.0814	31	0.0138
18	143	0.1285	35	0.0198
19	178	0.201	39	0.0278
20	222	0.316	44	0.0395
21	278	0.499	50	0.0565
22	343	0.78	56	0.0804
23	427	1.219	63	0.113
24	529	1.91	71	0.161
25	653	2.97	80	0.229
26	817	4.71	89	0.324
27	1029	7.43	99	0.45
28	1262	11.58	111	0.642
29	1543	17.82	124	0.892

# 23.6 mm O.D.

## 14.4 mm I.D. x 8.89 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	24.3 mm	0.958 in
I.D. (min.)	13.77 mm	0.542 in
HT. (max.)	9.65 mm	0.380 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	12	55353	58353	-
26	22	55352	58352	77352
60	51	55351	58351	77351
75	63	-	-	77355
90	76	-	-	77354
125	105	55350	58350	77350
160	135	55348	58348	-
200	169	55347	-	-
300	253	55345	-	-

### Physical Characteristics

Window Area	1.49 cm <sup>2</sup>	293,800 c.mils
Cross Section	0.388 cm <sup>2</sup>	0.061 in <sup>2</sup>
Path Length	5.88 cm	2.32 in
Volume	2.28 cm <sup>3</sup>	0.142 in <sup>3</sup>
Weight- MPP	19.9 gm	0.042 lb
Weight- High Flux	18.8 gm	0.040 lb
Weight- Kool M $\mu$	14.0 gm	0.031 lb
Area Product	0.578 cm <sup>4</sup>	0.0139 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	4.49 cm	0.1473 ft
60%	3.91 cm	0.1282 ft
40%	3.34 cm	0.1095 ft
20%	3.09 cm	0.1013 ft
0%	3.00 cm	0.0982 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	33.5 mm	1.319 in
Max. HT. (u.w.f.)	21.4 mm	0.843 in

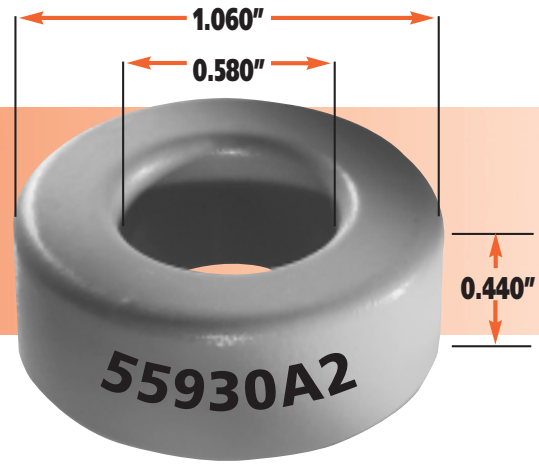
### Surface Area

Unwound Core	17.9 cm <sup>2</sup>	2.78 in <sup>2</sup>
40% Winding Factor	26.3 cm <sup>2</sup>	4.08 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
9	20	0.00238	11	0.000853
10	26	0.00376	13	0.00127
11	32	0.00595	15	0.00186
12	40	0.00941	17	0.00265
13	50	0.0148	19	0.00373
14	63	0.0233	22	0.00544
15	78	0.0366	25	0.00781
16	98	0.058	28	0.0111
17	121	0.0903	32	0.0159
18	157	0.1425	36	0.0226
19	188	0.223	40	0.0316
20	235	0.351	46	0.0458
21	294	0.554	51	0.0691
22	363	0.865	58	0.0923
23	452	1.351	65	0.13
24	560	2.12	73	0.184
25	691	3.3	82	0.261
26	864	5.22	92	0.37
27	1088	8.24	102	0.515
28	1335	12.84	114	0.731

# 26.9 mm O.D.

## 14.7 mm I.D. x 11.2 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	27.7 mm	1.090 in
I.D. (min.)	14.10 mm	0.555 in
HT. (max.)	11.94 mm	0.470 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	18	55933	58933	-
26	32	55932	58932	77932
60	75	55894	58894	77894
75	94	-	-	77935
90	113	-	-	77934
125	157	55930	58930	77930
160	201	55928	58928	-
200	251	55927	-	-
300	377	55925	-	-
550	740	55926	-	-

### Physical Characteristics

Window Area	1.56 cm <sup>2</sup>	308,000 c.mils
Cross Section	0.654 cm <sup>2</sup>	0.1014 in <sup>2</sup>
Path Length	6.35 cm	2.50 in
Volume	4.15 cm <sup>3</sup>	0.254 in <sup>3</sup>
Weight- MPP	35.8 gm	0.080 lb
Weight- High Flux	33.8 gm	0.075 lb
Weight- Kool M $\mu$	25.5 gm	0.056 lb
Area Product	1.020 cm <sup>4</sup>	0.0245 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	5.23 cm	0.1714 ft
60%	4.66 cm	0.1526 ft
40%	4.10 cm	0.1344 ft
20%	3.85 cm	0.1263 ft
0%	3.76 cm	0.1233 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	37.3 mm	1.468 in
Max. HT. (u.w.f.)	24.0 mm	0.944 in

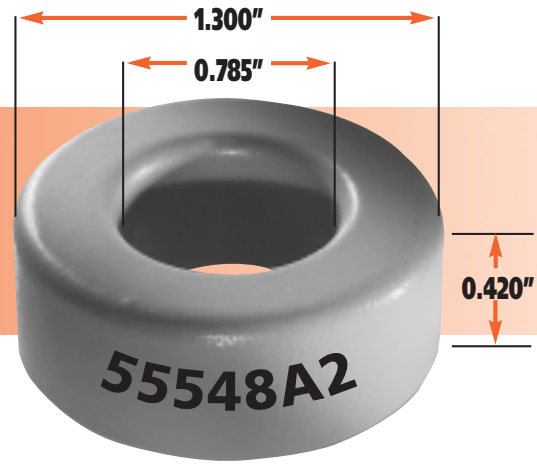
### Surface Area

Unwound Core	24.7 cm <sup>2</sup>	3.83 in <sup>2</sup>
40% Winding Factor	33.8 cm <sup>2</sup>	5.24 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
9	21	0.00291	11	0.00107
10	27	0.00459	13	0.0016
11	34	0.00726	15	0.00233
12	42	0.01148	17	0.00333
13	53	0.01805	20	0.00494
14	66	0.0284	22	0.00685
15	82	0.0447	25	0.0098
16	103	0.0707	29	0.0144
17	127	0.1102	33	0.0203
18	159	0.1739	37	0.0291
19	197	0.272	42	0.0416
20	246	0.428	47	0.0587
21	308	0.676	53	0.0835
22	380	1.056	60	0.12
23	474	1.649	66	0.165
24	587	2.58	75	0.237
25	725	4.02	84	0.335
26	906	6.37	94	0.476
27	1141	10.05	105	0.744
28	1400	15.67	117	0.942

# 33.0 mm O.D.

## 19.9 mm I.D. x 10.7 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	33.8 mm	1.330 in
I.D. (min.)	19.30 mm	0.760 in
HT. (max.)	11.43 mm	0.450 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool $\mu\mu$
14	14	55551	58551	-
26	28	55550	58550	77550
60	61	55071	58071	77071
75	76	-	-	77553
90	91	-	-	77552
125	127	55548	58548	77548
160	163	55546	58546	-
200	203	55545	-	-
300	305	55543	-	-
550	559	55544	-	-

### Physical Characteristics

Window Area	2.93 cm <sup>2</sup>	577,600 c.mils
Cross Section	0.672 cm <sup>2</sup>	0.1042 in <sup>2</sup>
Path Length	8.15 cm	3.21 in
Volume	5.48 cm <sup>3</sup>	0.334 in <sup>3</sup>
Weight- MPP	46.9 gm	0.106 lb
Weight- High Flux	44.2 gm	0.100 lb
Weight- Kool $\mu\mu$	33.7 gm	0.074 lb
Area Product	1.969 cm <sup>4</sup>	0.0473 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	5.93 cm	0.1943 ft
60%	5.09 cm	0.1668 ft
40%	4.27 cm	0.1400 ft
20%	3.91 cm	0.1282 ft
0%	3.78 cm	0.1238 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	46.7 mm	1.840 in
Max. HT. (u.w.f.)	28.0 mm	1.103 in

### Surface Area

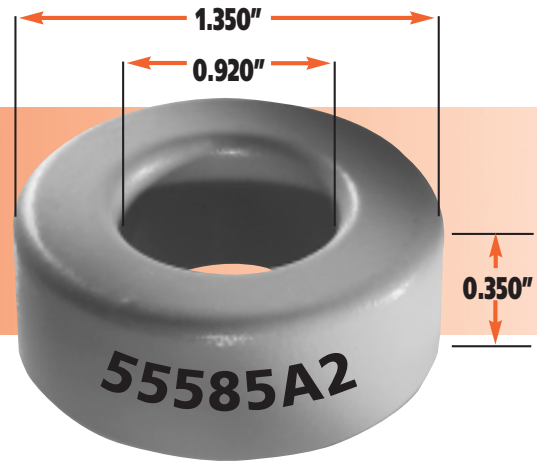
Unwound Core	31.5 cm <sup>2</sup>	4.88 in <sup>2</sup>
40% Winding Factor	48.0 cm <sup>2</sup>	7.44 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	32	0.00393	15	0.00117
9	40	0.00618	17	0.00166
10	50	0.00976	19	0.00236
11	63	0.01544	22	0.00343
12	79	0.0244	25	0.0055
13	99	0.0384	28	0.00693
14	123	0.0604	32	0.00999
15	154	0.0949	36	0.0142
16	193	0.1504	41	0.0204
17	239	0.234	46	0.0288
18	298	0.37	52	0.0411
19	370	0.579	58	0.0578
20	462	0.909	65	0.0815
21	578	1.437	74	0.118
22	713	2.24	83	0.166
23	889	3.5	92	0.231
24	1100	5.49	103	0.328
25	1359	8.56	116	0.465
26	1699	13.53	130	0.66
27	2139	21.4	145	0.922

Core Data



**34.3 mm O.D.**  
**23.4 mm I.D. x 8.89 mm HT.**



**Core Dimensions (after finish)**

O.D. (max.)	35.2 mm	1.385 in
I.D. (min.)	22.6 mm	0.888 in
HT. (max.)	9.78 mm	0.385 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	9	55588	58588	-
26	16	55587	58587	77587
60	38	55586	58586	77586
75	47	-	-	77590
90	57	-	-	77589
125	79	55585	58585	77585
160	101	55583	58583	-
200	126	55582	-	-
300	190	55580	-	-
550	348	55581	-	-

**Physical Characteristics**

Window Area	4.01 cm <sup>2</sup>	788,500 c.mils
Cross Section	0.454 cm <sup>2</sup>	0.0704 in <sup>2</sup>
Path Length	8.95 cm	3.53 in
Volume	4.06 cm <sup>3</sup>	0.249 in <sup>3</sup>
Weight- MPP	34.9 gm	0.081 lb
Weight- High Flux	32.9 gm	0.076 lb
Weight- Kool M $\mu$	25.0 gm	0.055 lb
Area Product	1.821 cm <sup>4</sup>	0.0436 in <sup>4</sup>

**Winding Turn Length**

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	5.87 cm	0.1923 ft
60%	4.84 cm	0.1586 ft
40%	3.84 cm	0.1258 ft
20%	3.39 cm	0.1113 ft
0%	3.23 cm	0.1059 ft

**Wound Coil Dimensions**

Max. O.D. (u.w.f.)	50.1 mm	1.974 in
Max. HT. (u.w.f.)	29.0 mm	1.142 in

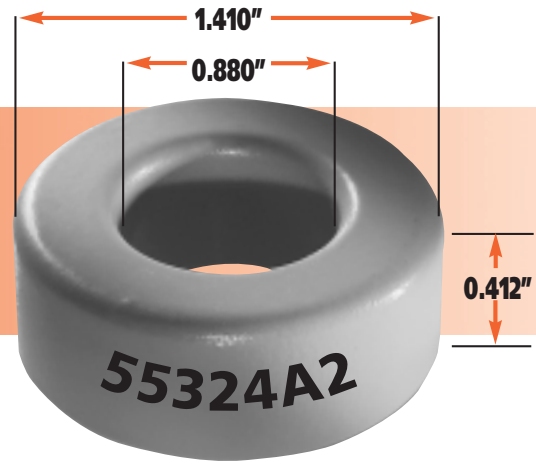
**Surface Area**

Unwound Core	29.3 cm <sup>2</sup>	4.537 in <sup>2</sup>
40% Winding Factor	51.3 cm <sup>2</sup>	7.95 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	44	0.00531	18	0.0012
9	55	0.00835	20	0.00168
10	69	0.01319	23	0.00243
11	86	0.0209	26	0.00348
12	108	0.033	30	0.00505
13	135	0.0518	34	0.0072
14	168	0.0817	38	0.0101
15	210	0.1283	43	0.0145
16	263	0.203	48	0.0205
17	326	0.316	54	0.0288
18	406	0.499	61	0.0413
19	505	0.782	69	0.0665
20	631	1.229	77	0.0826
21	789	1.941	87	0.118
22	974	3.03	98	0.168
23	1213	4.74	109	0.234
24	1502	7.43	122	0.322
25	1855	11.56	137	0.47
26	2319	18.29	153	0.665
27	2921	28.9	170	0.925

# 35.8 mm O.D.

## 22.4 mm I.D. x 10.5 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	36.7 mm	1.445 in
I.D. (min.)	21.5 mm	0.848 in
HT. (max.)	11.35 mm	0.447 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	13	55327	58327	-
26	24	55326	58326	77326
60	56	55076	58076	77076
75	70	-	-	77329
90	84	-	-	77328
125	117	55324	58324	77324
160	150	55322	58322	-
200	187	55321	-	-
300	281	55319	-	-
550	515	55320	-	-

### Physical Characteristics

Window Area	3.64 cm <sup>2</sup>	719,100 c.mils
Cross Section	0.678 cm <sup>2</sup>	0.1051 in <sup>2</sup>
Path Length	8.98 cm	3.54 in
Volume	6.088 cm <sup>3</sup>	0.372 in <sup>3</sup>
Weight- MPP	51.8 gm	0.112 lb
Weight- High Flux	48.9 gm	0.106 lb
Weight- Kool M $\mu$	37.4 gm	0.082 lb
Area Product	2.47 cm <sup>4</sup>	0.0594 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	6.22 cm	0.2040 ft
60%	5.27 cm	0.1727 ft
40%	4.34 cm	0.1422 ft
20%	3.93 cm	0.1288 ft
0%	3.78 cm	0.1238 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	51.1 mm	2.01 in
Max. HT. (u.w.f.)	29.6 mm	1.165 in

### Surface Area

Unwound Core	34.5 cm <sup>2</sup>	5.35 in <sup>2</sup>
40% Winding Factor	55.1 cm <sup>2</sup>	8.54 in <sup>2</sup>

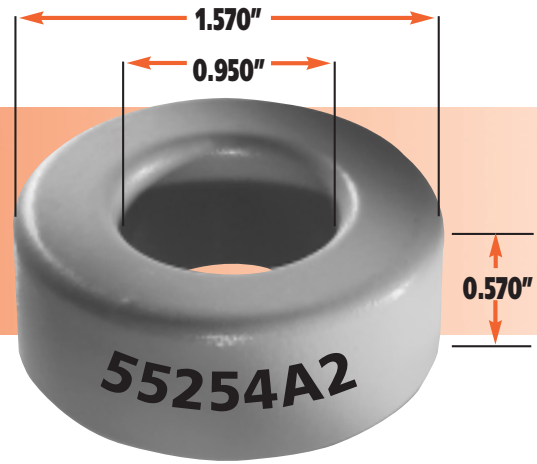
AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	40	0.00513	17	0.00133
9	50	0.00807	19	0.00185
10	63	0.01275	22	0.00273
11	79	0.0202	25	0.0039
12	98	0.0319	28	0.00551
13	123	0.0501	32	0.00792
14	154	0.079	36	0.0112
15	191	0.124	41	0.0162
16	240	0.1965	46	0.0229
17	297	0.306	52	0.0325
18	371	0.483	58	0.0458
19	461	0.757	65	0.0648
20	575	1.188	73	0.0915
21	719	1.877	82	0.13
22	888	2.93	93	0.187
23	1106	4.58	103	0.259
24	1370	7.18	116	0.368
25	1692	11.18	130	0.521
26	2115	17.68	146	0.741
27	2663	27.9	161	1.02

Core Data



# 39.9 mm O.D.

## 24.1 mm I.D. x 14.5 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	40.8 mm	1.605 in
I.D. (min.)	23.3 mm	0.918 in
HT. (max.)	15.37 mm	0.605 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool $M\mu$
14	19	55257	58257	-
26	35	55256	58256	77256
60	81	55083	58083	77083
75	101	-	-	77259
90	121	-	-	77258
125	168	55254	58254	77254
160	215	55252	58252	-
200	269	55251	-	-
300	403	55249	-	-
550	740	55250	-	-

### Physical Characteristics

Window Area	4.27 cm <sup>2</sup>	842,700 c.mils
Cross Section	1.072 cm <sup>2</sup>	0.1662 in <sup>2</sup>
Path Length	9.84 cm	3.88 in
Volume	10.5 cm <sup>3</sup>	0.645 in <sup>3</sup>
Weight- MPP	91.7 gm	0.206 lb
Weight- High Flux	86.5 gm	0.194 lb
Weight- Kool $M\mu$	64.9 gm	0.143 lb
Area Product	4.58 cm <sup>4</sup>	0.1100 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	7.38 cm	0.242 ft
60%	6.38 cm	0.209 ft
40%	5.40 cm	0.1772 ft
20%	4.97 cm	0.1631 ft
0%	4.81 cm	0.1578 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	56.4 mm	2.22 in
Max. HT. (u.w.f.)	35.2 mm	1.385 in

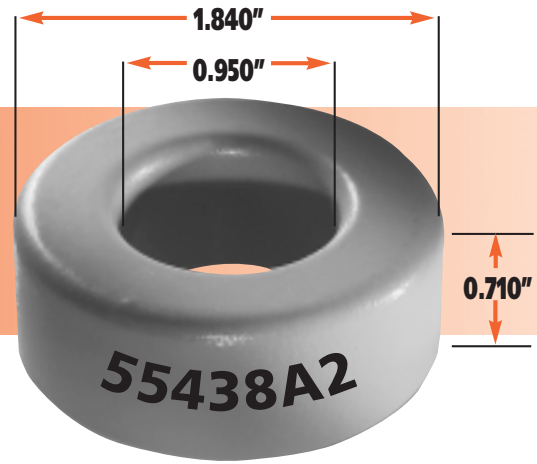
### Surface Area

Unwound Core	48.4 cm <sup>2</sup>	7.5 in <sup>2</sup>
40% Winding Factor	71.7 cm <sup>2</sup>	11.1 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	47	0.00714	18	0.00179
9	59	0.01123	21	0.00263
10	73	0.01774	24	0.00378
11	92	0.0281	27	0.00537
12	115	0.0444	31	0.00778
13	144	0.0698	35	0.0111
14	180	0.1099	39	0.0155
15	224	0.1726	44	0.0221
16	281	0.273	50	0.0317
17	348	0.426	56	0.0446
18	434	0.672	63	0.0636
19	540	1.053	71	0.0902
20	674	1.653	80	0.128
21	843	2.61	90	0.182
22	1040	4.08	101	0.259
23	1297	6.37	112	0.359
24	1605	9.99	126	0.511
25	1983	15.55	141	0.721
26	2479	24.6	158	1.02
27	3121	38.8	175	1.42

# 46.7 mm O.D.

## 24.1 mm I.D. x 18.0 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	47.6 mm	1.875 in
I.D. (min.)	23.3 mm	0.918 in
HT. (max.)	18.92 mm	0.745 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	32	55441	58441	-
26	59	55440	58440	77440
60	135	55439	58439	77439
75	169	-	-	77443
90	202	-	-	77442
125	281	55438	58438	77438
160	360	55436	-	-
200	450	55435	-	-
300	674	55433	-	-

### Physical Characteristics

Window Area	4.27 cm <sup>2</sup>	842,700 c.mils
Cross Section	1.990 cm <sup>2</sup>	0.308 in <sup>2</sup>
Path Length	10.74 cm	4.23 in
Volume	21.3 cm <sup>3</sup>	1.30 in <sup>3</sup>
Weight- MPP	181 gm	0.399 lb
Weight- High Flux	171 gm	0.378 lb
Weight- Kool M $\mu$	131.4 gm	0.29 lb
Area Product	8.50 cm <sup>4</sup>	0.204 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	8.66 cm	0.284 ft
60%	7.71 cm	0.253 ft
40%	6.78 cm	0.222 ft
20%	6.37 cm	0.209 ft
0%	6.22 cm	0.204 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	63.8 mm	2.51 in
Max. HT. (u.w.f.)	38.7 mm	1.525 in

### Surface Area

Unwound Core	69.3 cm <sup>2</sup>	10.7 in <sup>2</sup>
40% Winding Factor	94.3 cm <sup>2</sup>	14.6 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	47	0.00837	18	0.00231
9	59	0.01317	21	0.00339
10	73	0.0208	24	0.0049
11	92	0.0329	27	0.00694
12	115	0.052	31	0.01
13	144	0.0818	35	0.0143
14	180	0.1288	39	0.0201
15	224	0.202	44	0.0285
16	281	0.32	50	0.041
17	348	0.499	56	0.0577
18	434	0.788	63	0.0821
19	540	1.234	71	0.116
20	674	1.938	80	0.166
21	843	3.06	90	0.236
22	1040	4.78	101	0.334
23	1297	7.47	112	0.464
24	1605	11.71	126	0.66
25	1983	18.23	141	0.932
26	2479	28.8	158	1.32
27	3121	45.5	175	1.83

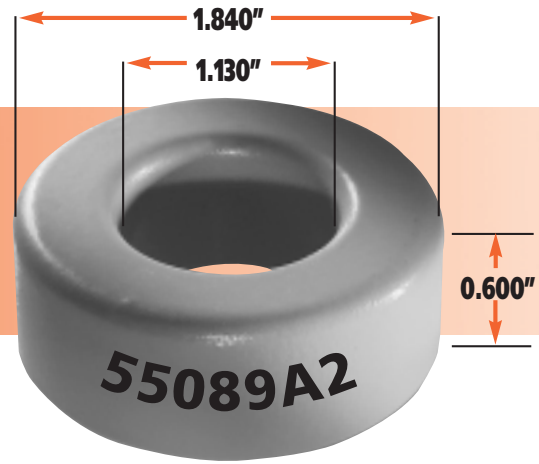
Core Data





# 46.7 mm O.D.

## 28.7 mm I.D. x 15.2 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	47.6 mm	1.875 in
I.D. (min.)	27.9 mm	1.098 in
HT. (max.)	16.13 mm	0.635 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool $\mu\mu$
14	20	55092	58092	-
26	37	55091	58091	77091
60	86	55090	58090	77090
75	107	-	-	77094
90	128	-	-	77093
125	178	55089	58089	77089
160	228	55087	-	-
200	285	55086	-	-
300	427	55084	-	-

### Physical Characteristics

Window Area	6.11 cm <sup>2</sup>	1,206,000 c.mils
Cross Section	1.340 cm <sup>2</sup>	0.208 in <sup>2</sup>
Path Length	11.63 cm	4.58 in
Volume	15.58 cm <sup>3</sup>	0.953 in <sup>3</sup>
Weight- MPP	130.4 gm	0.287 lb
Weight- High Flux	123 gm	0.271 lb
Weight- Kool $\mu\mu$	95.8 gm	0.211 lb
Area Product	8.19 cm <sup>4</sup>	0.1971 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	8.34 cm	0.273 ft
60%	7.12 cm	0.233 ft
40%	5.92 cm	0.194 ft
20%	5.40 cm	0.177 ft
0%	5.20 cm	0.171 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	66.3 mm	2.61 in
Max. HT. (u.w.f.)	39.8 mm	1.568 in

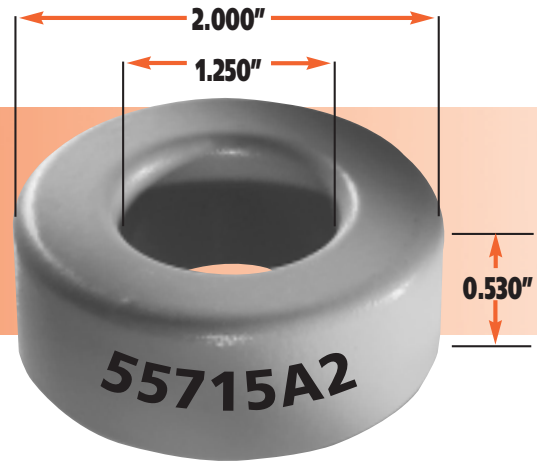
### Surface Area

Unwound Core	61.7 cm <sup>2</sup>	9.56 in <sup>2</sup>
40% Winding Factor	95.1 cm <sup>2</sup>	14.74 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	67	0.01153	23	0.00247
9	84	0.01814	26	0.0035
10	105	0.0287	29	0.00494
11	132	0.0453	33	0.00709
12	165	0.0717	37	0.01
13	206	0.1127	42	0.0143
14	258	0.1774	47	0.0202
15	321	0.279	54	0.0293
16	402	0.442	60	0.0411
17	498	0.688	68	0.0664
18	621	1.085	76	0.0828
19	773	1.7	86	0.118
20	964	2.67	96	0.166
21	1206	4.22	108	0.236
22	1488	6.59	121	0.335
23	1855	10.29	135	0.468
24	2296	16.13	152	0.666
25	2837	25.1	170	0.939
26	3546	39.7	190	1.33
27	4465	62.7	211	1.86

# 50.8 mm O.D.

## 31.8 mm I.D. x 13.5 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	51.7 mm	2.035 in
I.D. (min.)	30.9 mm	1.218 in
HT. (max.)	14.35 mm	0.565 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool $\mu\mu$
14	17	55718	58718	-
26	32	55717	58717	77717
60	73	55716	58716	77716
75	91	-	-	77720
90	109	-	-	77719
125	152	55715	58715	77715
160	195	55713	-	-
200	243	55712	-	-
300	365	55710	-	-

### Physical Characteristics

Window Area	7.50 cm <sup>2</sup>	1,484,000 c.mils
Cross Section	1.251 cm <sup>2</sup>	0.194 in <sup>2</sup>
Path Length	12.73 cm	5.02 in
Volume	15.93 cm <sup>3</sup>	0.974 in <sup>3</sup>
Weight- MPP	141 gm	0.312 lb
Weight- High Flux	133 gm	0.294 lb
Weight- Kool $\mu\mu$	98.1 gm	0.216 lb
Area Product	9.38 cm <sup>4</sup>	0.226 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	8.51 cm	0.279 ft
60%	7.12 cm	0.234 ft
40%	5.77 cm	0.189 ft
20%	5.18 cm	0.170 ft
0%	4.95 cm	0.162 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	72.4 mm	2.85 in
Max. HT. (u.w.f.)	40.6 mm	1.600 in

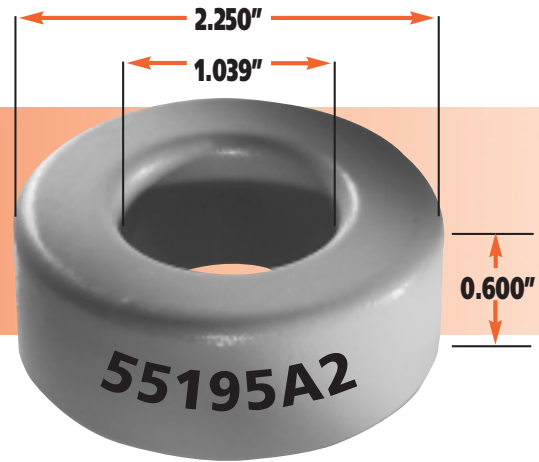
### Surface Area

Unwound Core	64.2 cm <sup>2</sup>	9.95 in <sup>2</sup>
40% Winding Factor	106.3 cm <sup>2</sup>	16.48 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	82	0.0144	25	0.0025
9	103	0.0228	29	0.00369
10	129	0.036	33	0.00533
11	162	0.0569	37	0.00752
12	203	0.09	42	0.0108
13	254	0.1415	47	0.0153
14	317	0.223	53	0.0217
15	395	0.35	60	0.031
16	495	0.555	67	0.0437
17	613	0.864	76	0.0622
18	765	1.363	85	0.0882
19	951	2.14	95	0.121
20	1187	3.35	107	0.176
21	1484	5.3	120	0.25
22	1832	8.28	135	0.354
23	2282	12.93	150	0.494
24	2826	20.3	168	0.701
25	3491	31.6	188	0.989
26	4363	49.9	211	1.4
27	5495	78.8	234	1.95

# 57.2 mm O.D.

## 26.4 mm I.D. x 15.2 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	58.0 mm	2.285 in
I.D. (min.)	25.6 mm	1.007 in
HT. (max.)	16.1 mm	0.635 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	32	55190	58190	-
26	60	55191	58191	77191
60	138	55192	58192	77192
75	172	-	-	77193
90	207	-	-	77194
125	287	55195	58195	77195
160	333	55197	-	-
200	417	55199	-	-

### Physical Characteristics

Window Area	5.14 cm <sup>2</sup>	1,014,049 c.mils
Cross Section	2.29 cm <sup>2</sup>	0.355 in <sup>2</sup>
Path Length	12.5 cm	4.93 in
Volume	28.6 cm <sup>3</sup>	1.75 in <sup>3</sup>
Weight- MPP	240 gm	0.527 lb
Weight- High Flux	226 gm	0.497 lb
Weight- Kool M $\mu$	176 gm	0.388 lb
Area Product	11.8 cm <sup>4</sup>	0.283 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	9.02 cm	0.296 ft
60%	8.35 cm	0.274 ft
40%	7.62 cm	0.250 ft
20%	7.01 cm	0.230 ft
0%	6.46 cm	0.212 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	75.7 mm	2.98 in
Max. HT. (u.w.f.)	34.0 mm	1.34 in

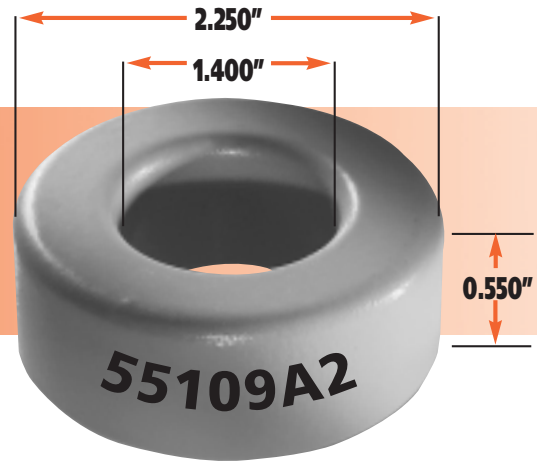
### Surface Area

Unwound Core	91.0 cm <sup>2</sup>	14.1 in <sup>2</sup>
40% Winding Factor	115 cm <sup>2</sup>	17.8 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	56	0.00967	20	0.00267
9	70	0.0151	23	0.00385
10	88	0.0241	26	0.00551
11	110	0.0379	30	0.00801
12	138	0.0601	34	0.0115
13	173	0.0948	39	0.0165
14	216	0.149	43	0.023
15	269	0.234	49	0.033
16	338	0.372	55	0.0469
17	419	0.58	62	0.0664
18	522	0.914	70	0.0948
19	650	1.43	78	0.133
20	811	2.25	88	0.189
21	1014	3.55	99	0.269
22	1252	5.55	111	0.381
23	1560	8.67	124	0.534
24	1931	13.6	138	0.752
25	2386	21.2	156	1.07
26	2982	33.5	174	1.51
27	3755	52.9	193	2.10

# 57.2 mm

## 35.6 mm I.D. x 14.0 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	58.0 mm	2.285 in
I.D. (min.)	34.7 mm	1.368 in
HT. (max.)	14.86 mm	0.585 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	18	55112	58112	-
26	33	55111	58111	77111
60	75	55110	58110	77110
75	94	-	-	77214
90	112	-	-	77213
125	156	55109	58109	77109
160	200	55107	-	-
200	250	55106	-	-
300	374	55104	-	-

### Physical Characteristics

Window Area	9.48 cm <sup>2</sup>	1,871,000 c.mils
Cross Section	1.444 cm <sup>2</sup>	0.224 in <sup>2</sup>
Path Length	14.30 cm	5.63 in
Volume	20.65 cm <sup>3</sup>	1.260 in <sup>3</sup>
Weight- MPP	175 gm	0.387 lb
Weight- High Flux	165 gm	0.365 lb
Weight- Kool M $\mu$	127 gm	0.280 lb
Area Product	13.69 cm <sup>4</sup>	0.329 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	9.33 cm	0.306 ft
60%	7.76 cm	0.254 ft
40%	6.23 cm	0.204 ft
20%	5.56 cm	0.182 ft
0%	5.30 cm	0.174 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	81.3 mm	3.20 in
Max. HT. (u.w.f.)	44.4 mm	1.748 in

### Surface Area

Unwound Core	76.8 cm <sup>2</sup>	11.9 in <sup>2</sup>
40% Winding Factor	130.7 cm <sup>2</sup>	20.26 in <sup>2</sup>

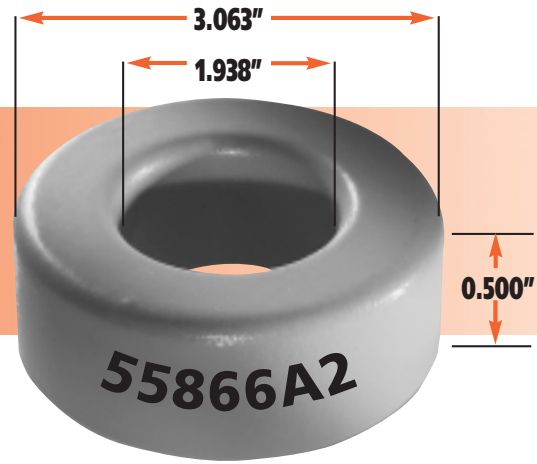
AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	104	0.02	29	0.00318
9	130	0.0315	33	0.00453
10	163	0.0498	37	0.00644
11	204	0.0787	42	0.0092
12	256	0.1245	48	0.0133
13	320	0.1957	54	0.0188
14	400	0.308	60	0.0263
15	498	0.484	68	0.0376
16	624	0.767	76	0.0531
17	773	1.195	85	0.0746
18	965	1.886	96	0.107
19	1200	2.95	108	0.152
20	1497	4.64	120	0.211
21	1871	7.33	135	0.3
22	2310	11.45	152	0.428
23	2879	17.88	169	0.596
24	3565	28	189	0.845
25	4403	43.6	212	1.19
26	5504	69	237	1.69
27	6931	109	263	2.35

Core Data



# 77.8 mm O.D.

## 49.2 mm I.D. x 12.7 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	78.9 mm	3.108 in
I.D. (min.)	48.2 mm	1.898 in
HT. (max.)	13.84 mm	0.545 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	16	55869	58869	-
26	30	55868	58868	77868
60	68	55867	58867	-
125	142	55866	58866	-

### Physical Characteristics

Window Area	17.99 cm <sup>2</sup>	3,550,000 c.mils
Cross Section	1.77 cm <sup>2</sup>	0.274 in <sup>2</sup>
Path Length	20.0 cm	7.72 in
Volume	34.7 cm <sup>3</sup>	2.115 in <sup>3</sup>
Weight- MPP	288 gm	0.635 lb
Weight- High Flux	272 gm	0.599 lb
Weight- Kool M $\mu$	213 gm	0.467 lb
Area Product	31.8 cm <sup>4</sup>	0.765 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	10.40 cm	0.340 ft
60%	8.60 cm	0.282 ft
40%	6.90 cm	0.226 ft
20%	6.15 cm	0.202 ft
0%	5.90 cm	0.193 ft

### Wound Coil Dimensions

Max. O.D. (u.w.f.)	112 mm	4.40 in
Max. HT. (u.w.f.)	54.3 mm	2.14 in

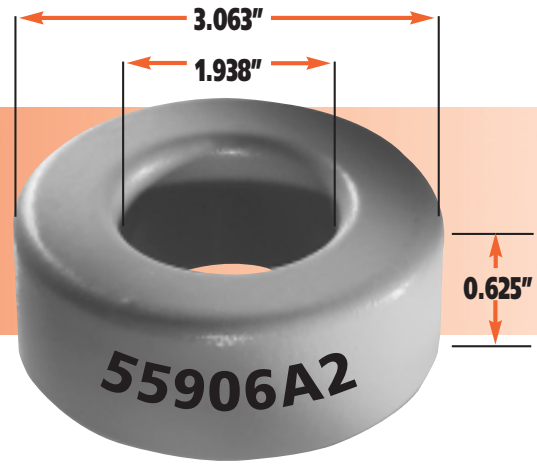
### Surface Area

Unwound Core	117.5 cm <sup>2</sup>	18.2 in <sup>2</sup>
40% Winding Factor	203.1 cm <sup>2</sup>	31.49 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	197	0.0422	41	0.00552
9	248	0.0664	47	0.00794
10	309	0.105	53	0.0113
11	388	0.1663	60	0.0162
12	486	0.262	67	0.0228
13	608	0.412	76	0.0325
14	760	0.65	84	0.0454
15	944	1.022	95	0.0646
16	1182	1.616	106	0.0912
17	1465	2.52	119	0.129
18	1830	3.98	134	0.183
19	2275	6.23	150	0.258
20	2840	9.8	168	0.364
21	3550	15.45	188	0.514
22	4390	24.2	211	0.732
23	5470	37.4	235	1.02
24	6770	59.2	263	1.3
25	8350	92	295	1.84
26	10450	145.8	330	2.61
27	13150	229	365	3.62

# 77.8 mm O.D.

## 49.2 mm I.D. x 15.9 mm HT.



### Core Dimensions (after finish)

O.D. (max.)	78.9 mm	3.108 in
I.D. (min.)	48.2 mm	1.898 in
HT. (max.)	17.02 mm	0.670 in

Permeability ( $\mu$ )	$A_L \pm 8\%$	Part Number		
		MPP	High Flux	Kool M $\mu$
14	20	55909	58909	-
26	37	55908	58908	77908
60	85	55907	58907	-
125	178	55906	58906	-

### Physical Characteristics

Window Area	17.99 cm <sup>2</sup>	3,550,000 c.mils
Cross Section	2.27 cm <sup>2</sup>	0.352 in <sup>2</sup>
Path Length	19.95 cm	7.86 in
Volume	45.3 cm <sup>3</sup>	2.77 in <sup>3</sup>
Weight- MPP	377 gm	0.832 lb
Weight- High Flux	356 gm	0.785 lb
Weight- Kool M $\mu$	279 gm	0.615 lb
Area Product	40.8 cm <sup>4</sup>	0.982 in <sup>4</sup>

### Winding Turn Length

WINDING FACTOR	LENGTH/TURN	
100% (Unity)	11.00 cm	0.361 ft
60%	9.24 cm	0.303 ft
40%	7.53 cm	0.247 ft
20%	6.80 cm	0.223 ft
0%	6.52 cm	0.214 ft

### Wound Coil Dimensions

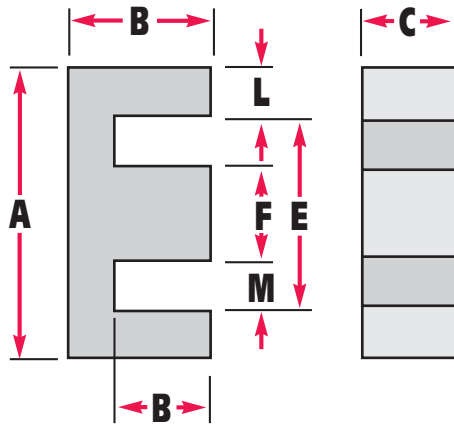
Max. O.D. (u.w.f.)	113 mm	4.45 in
Max. HT. (u.w.f.)	57.7 mm	2.27 in

### Surface Area

Unwound Core	130 cm <sup>2</sup>	20.1 in <sup>2</sup>
40% Winding Factor	225.2 cm <sup>2</sup>	34.90 in <sup>2</sup>

AWG Wire Size	Turns (u.w.f.)	Rdc (Ohms, $\Omega$ ) (u.w.f.)	Single Layer Turns	Single Layer Rdc. (Ohms, $\Omega$ )
8	197	0.0418	41	0.00612
9	248	0.0705	47	0.0088
10	309	0.1115	53	0.0125
11	388	0.1766	60	0.018
12	486	0.278	67	0.0253
13	608	0.437	76	0.036
14	760	0.69	84	0.0503
15	944	1.085	95	0.0716
16	1182	1.716	106	0.101
17	1465	2.67	119	0.143
18	1830	4.23	134	0.203
19	2275	6.61	150	0.286
20	2840	10.4	168	0.404
21	3550	16.4	188	0.57
22	4390	25.7	211	0.812
23	5470	39.7	235	1.13
24	6770	62.9	263	1.44
25	8350	97.7	295	2.04
26	10450	154.8	330	2.89
27	13150	243.1	365	4.01

# Kool M $\mu$ <sup>®</sup> E Core Data



PART NO.		A	B	C	D (min.)	E (min.)	F	L (nom.)	M (min.)
00K1207E (EF 12.6)	in (mm)	.500±.010 (12.70)	.252±.004 (6.40)	.140±.006 (3.56)	0.178 (4.42)	0.35 (8.89)	.140±.005 (3.56)	0.07 (1.78)	0.104 (2.64)
00K1808E (EI-187)	in (mm)	.760±.012 (19.30)	.319±.007 (8.10)	.188±.006 (4.78)	0.218 (5.54)	0.548 (13.90)	.188±.005 (4.78)	0.094 (2.39)	0.183 (4.65)
00K2510E (E-2425)	in (mm)	1.000±.015 (25.40)	.375±.007 (9.53)	.250±.004 (6.53)	0.245 (6.22)	0.74 (18.80)	.250±.005 (6.22)	0.125 (3.17)	0.246 (6.25)
00K3007E (DIN 30/7)	in (mm)	1.185±.018 (30.10)	.591±.009 (15.01)	.278±.006 (7.06)	0.376 (9.70)	0.768 (19.50)	.274±.008 (6.96)	0.201 (5.11)	0.254 (6.46)
00K3515E (EI-375)	in (mm)	1.360±.020 (34.54)	.557±.009 (14.10)	.368±.007 (9.35)	0.378 (9.65)	0.995 (25.30)	.367±.008 (9.32)	0.175 (4.45)	0.31 (7.87)
00K4017E (EE 42/11)	in (mm)	1.687±.025 (42.80)	.830±.013 (21.10)	.424±.010 (10.80)	0.587 (15.00)	1.195 (30.40)	.468±.010 (11.90)	0.234 (5.95)	0.365 (9.27)
00K4020E (DIN 42/15)	in (mm)	1.687±.025 (42.80)	.830±.013 (21.10)	.608±.010 (15.40)	0.587 (15.00)	1.195 (30.40)	.468±.010 (11.90)	0.234 (5.95)	0.365 (9.27)
00K4022E (DIN 42/20)	in (mm)	1.687±.025 (42.80)	.830±.013 (21.10)	.788±.010 (20.00)	0.587 (15.00)	1.195 (30.40)	.468±.010 (11.90)	0.234 (5.95)	0.365 (9.27)
00K4317E (EI-21)	in (mm)	1.609±.024 (40.90)	.650±.011 (16.50)	.493±.007 (12.50)	0.409 (10.40)	1.115 (28.30)	.493±.008 (12.50)	0.238 (6.00)	0.31 (7.90)
00K5528E (DIN 55/21)	in (mm)	2.16±.032 (54.90)	1.085±.016 (27.60)	.812±.015 (20.60)	0.729 (18.50)	1.476 (37.50)	.660±.015 (16.80)	0.33 (8.38)	0.405 (10.30)
00K5530E (DIN 55/25)	in (mm)	2.16±.032 (54.90)	1.085±.016 (27.60)	.969±.015 (24.61)	0.729 (18.50)	1.476 (37.50)	.660±.015 (16.80)	0.33 (8.38)	0.405 (10.30)
00K6527E (Metric E65)	in (mm)	2.563±.050 (65.10)	1.279±.150 (32.50)	1.063±.016 (27.00)	.874 (22.20)	1.740 (44.20)	.775±.012 (19.70)	.394 (10.00)	.476 (12.10)
00K7228E (F11)	in (mm)	2.850±.043 (72.39)	1.100±.020 (27.94)	.750±.015 (19.05)	0.699 (17.78)	2.072 (52.63)	.750±.015 (19.05)	0.375 (9.52)	0.665 (16.89)
00K8020E (Metric E80)	in (mm)	3.150±.047 (80.01)	1.500±.025 (38.10)	.780±.015 (19.81)	1.103 (28.14)	2.334 (59.28)	.780±.015 (19.81)	0.39 (9.91)	0.78 (19.81)

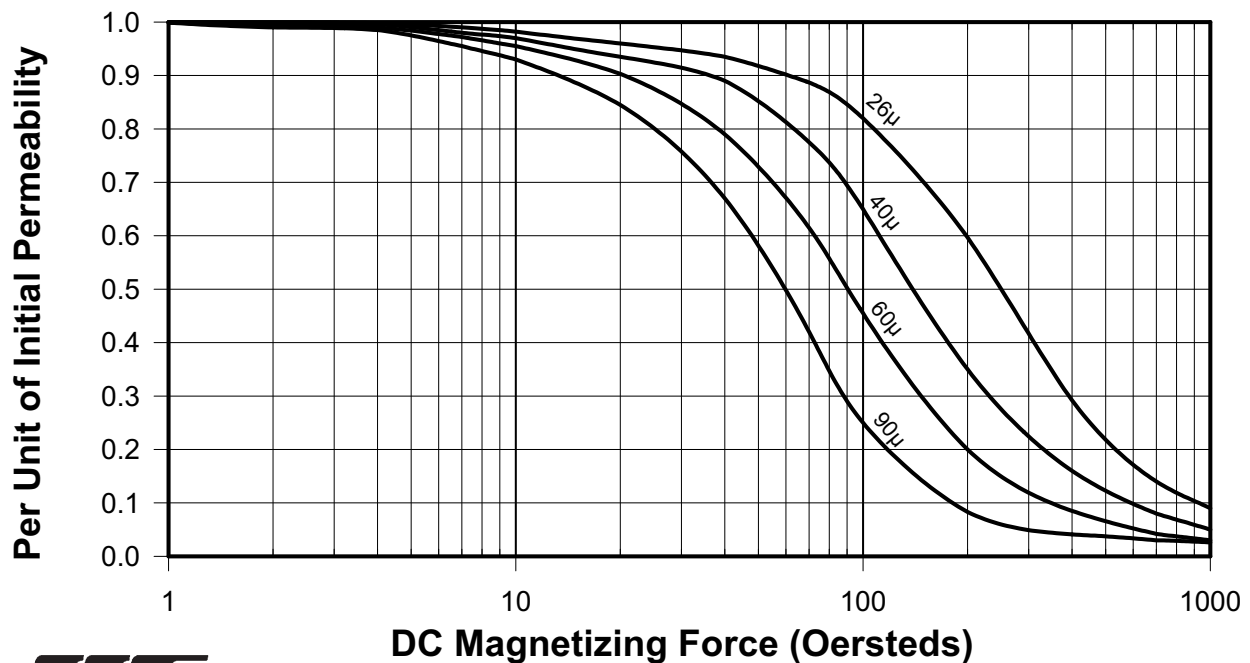
PART NO.	$A_L$ mH/1000 TURNS $\pm$ 8%				Path Length $l_e$ (cm)	Cross Section $A_e$ (cm $^2$ )	Volume $V_e$ (cm $^3$ )
	26 $\mu$	40 $\mu$	60 $\mu$	90 $\mu$			
00K1207E***	-	-	-	-	2.96	0.130	0.385
00K1808E***	26	35	48	69	4.01	0.228	0.914
00K2510E***	39	52	70	100	4.85	0.385	1.87
00K3007E***	33	46	71	92	6.56	0.601	3.94
00K3515E***	56	75	102	146	6.94	0.840	5.83
00K4017E***	56	76	105	151	9.84	1.28	12.6
00K4020E***	80	108	150	217	9.84	1.83	18.0
00K4022E***	104	140	194	281	9.84	2.37	23.3
00K4317E***	88	119	163	234	7.75	1.52	11.8
00K5528E***	116	157	219	NA	12.3	3.50	43.1
00K5530E***	138	187	261	NA	12.3	4.17	51.4
00K6527E***	-	-	-	NA	14.7	5.40	79.4
00K7228E***	-	-	-	NA	13.7	3.68	50.3
00K8020E***	103	145	190	NA	18.5	3.89	72.1

\*\*\* Add material code to part number, e.g., for 60 $\mu$  the complete part number is 00K1808E060

## Kool M $\mu$ <sup>®</sup> E Core DC Bias

Kool M $\mu$  E cores are available in four permeabilities, 26 $\mu$ , 40 $\mu$ , 60 $\mu$ , and 90 $\mu$ . The magnetic data for each core is shown in the table above. The most critical parameter of a switching regulator inductor material is its ability to provide inductance, or permeability, under DC bias. The graph below shows the reduction of permeability as a function of DC bias. The distributed air gap of Kool M $\mu$  results in a soft inductance versus DC bias curve. In most

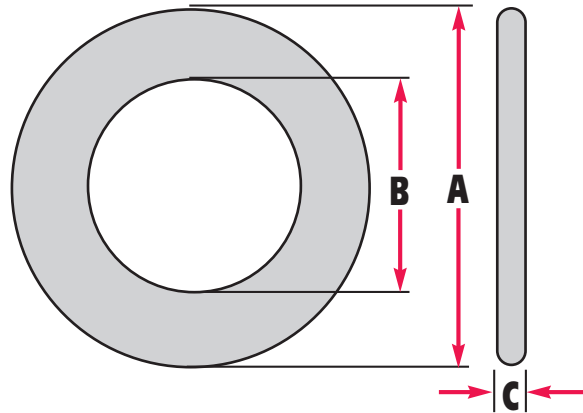
applications, this swinging inductance is desirable since it improves efficiency and accommodates a wide operating range. With a fixed current requirement, the soft inductance versus DC bias curve provides added protection against overload conditions. The chart below is plotted on a semi-log scale to show the DC bias characteristics at high currents.





# MPP THINZ™ Core Data

Special core heights are available, consult factory.



PART NO.		A nom.	B nom.	C nom.	A max.	B min.	C max.
00M0301T	in (mm)	.120 (3.05)	.070 (1.78)	.032 (.81)	.123 (3.12)	.067 (1.70)	.035 (.89)
00M0302T	in (mm)	.140 (3.55)	.070 (1.78)	.032 (.81)	.143 (3.63)	.067 (1.70)	.035 (.89)
00M0402T	in (mm)	.155 (3.94)	.088 (2.23)	.032 (.81)	.159 (4.04)	.084 (2.13)	.035 (.89)
00M0502T	in (mm)	.181 (4.60)	.093 (2.36)	.032 (.81)	.185 (4.70)	.089 (2.26)	.035 (.89)
00M0603T	in (mm)	.250 (6.35)	.110 (2.79)	.032 (.81)	.255 (6.47)	.105 (2.67)	.035 (.89)
00M0804T	in (mm)	.310 (7.87)	.156 (3.96)	.032 (.81)	.315 (8.00)	.151 (3.83)	.035 (.89)

PART NO.	A <sub>e</sub> mH/1000 TURNS±15%				Path Length l <sub>e</sub> (cm)	Cross Section A <sub>e</sub> (cm <sup>2</sup> )	Volume V <sub>e</sub> (cm <sup>3</sup> )
	125μ	160μ	200μ	250μ			
00M0301T***	8.4	10.8	13.5	16.9	.704	.0040	.0028
00M0302T***	11.6	14.8	18.7	23.4	.806	.0060	.0048
00M0402T***	9.6	12.3	15.4	19.3	.944	.0058	.0055
00M0502T***	11.7	15.0	18.7	23.4	1.058	.0079	.0083
00M0603T***	14.9	19.1	24.0	30.0	1.361	.0130	.0177
00M0804T***	12.6	16.2	20.2	25.3	1.789	.0145	.0259

\*\*\* Add material code to part number, e.g., for 125μ the complete part number is 00M0502T125

# MPP THINZ™ DC Bias

THINZ™ are available in four permeabilities, 125 $\mu$ , 160 $\mu$ , 200 $\mu$ , and 250 $\mu$ . The most critical parameter of a power inductor material is its ability to provide inductance, or permeability, under DC bias. The distributed air gap of MPP results in a soft inductance versus DC bias curve. This swinging inductance is often desirable since it improves efficiency and accommodates a wide operating range. With a fixed current requirement, the soft

inductance versus DC bias curve provides added protection against overload conditions. With a variable current requirement a more efficient inductor is achieved. The graph below shows the reduction of permeability as a function of DC bias. This graph is plotted on a semi-log scale to show the DC bias characteristics at high DC magnetizing forces. The following equation can be used to relate current to magnetizing force, or H.

$$H = .4 \pi N I / l_e$$

where:

H = DC Magnetizing force in Oersteds

N = number of turns

I = current in amps

$l_e$  = magnetic path length in cm

