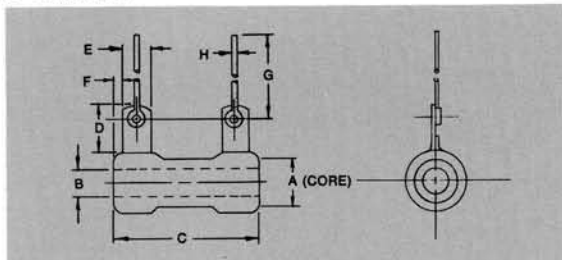


### FIXED W/LEADS: TYPE FRL — 5-8, 10-12, 20 WATTS

Mfg. Bracket Mfg. Centers Wt. (Lbs.)	FR5-8			FR10-12			FR20		
	1441-003-001 1 1/2" / .012	1441-003-001 2 1/2" / .019	1441-004-001 2 1/2" / .033	1441-003-001 1 1/2" / .012	1441-003-001 2 1/2" / .019	1441-004-001 2 1/2" / .033	1441-003-001 1 1/2" / .012	1441-003-001 2 1/2" / .019	1441-004-001 2 1/2" / .033
Ohms	Max. Amps	Max. Amps	Max. Amps	Ohms	Max. Amps	Max. Amps	Ohms	Max. Amps	Max. Amps
0.5		4.90	6.32	750	.10	.12	.16		
1	2.29	3.46	4.47	800	.10	.12	.15		
1.5	2.30	2.82		900	.094	.11	.15		
2	2.00	2.45	3.16	1000	.089	.11	.14		
3	1.63	2.00	2.58	1100	.085	.10			
4	1.41	1.73	2.24	1200	.081	.10	.13		
5	1.26	1.54	2.00	1250	.080	.097	.12		
7.5	1.00	1.26		1500	.073	.089	.12		
10	.89	1.09	1.41	1750	.067	.082	.11		
12	.81	1.00		2000	.063	.077	.10		
15	.73	.89		2250	.059	.073	.094		
20	.63	.77		2500	.056	.069	.089		
25	.56	.69	.89	3000	.046	.063	.081		
30	.51	.63		3500	.043	.058	.075		
35	.47	.58		4000	.040	.054	.070		
40	.44	.54		4500	.038	.051	.066		
50	.40	.49	.63	5000	.036	.049	.063		
75	.32	.40	.52	6000	.033	.044	.057		
100	.28	.34	.45	7000	.030	.041	.053		
125	.25	.31		7500	.029	.036	.051		
150	.23	.28	.36	8000	.029	.035	.050		
200	.20	.24	.32	9000	.027	.033	.047		
225	.18	.23		10000	.026	.032	.043		
250	.17	.22	.28	12500	.023	.028	.032		
300	.16	.20	.26	15000	.021	.026	.029		
350	.15	.18	.24	20000	.018	.022	.026		
400	.14	.17	.22	25000	.015	.020	.023		
450	.13	.16		30000					
500	.12	.15	.20	50000		.014	.016		
600	.11	.14		75000			.013		
700	.11	.13	.17	100000			.011		



	A	B	C	D	E	F	G	H
FRL5-8W	3/4	.200	1	3/4	3/4	3/2	1 1/4	.036
FRL10-12W	3/4	.200	1 1/4	3/4	3/4	3/2	1 1/4	.036
FRL20W	3/4	1/4	2	3/4	3/4	3/2	1 1/4	.036

#### FEATURES:

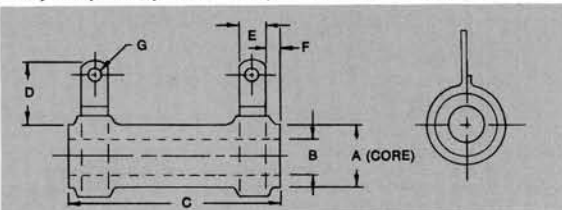
- Tubular construction provides excellent heat dissipation.
- Welded terminals and termination guarantees positive electrical connections.
- Balanced thermal expansion between core, wire and high temperature vitreous enamel assures reliable performance.
- Long term stability results from firing at temperatures exceeding 1000°F.
- Tinned terminals provide reliable solder or mechanical connections.
- Uniform winding and coating provides uniform heat dissipation and excellent appearance.
- Available in Non-inductive winding.
- Supplied with 1 1/2" solder leads.
- Other hardware available for mounting. See Hardware Section.

#### SPECIFICATIONS:

- Resistance tolerance  $\pm 5\%$  ... closer tolerance available.
- Temperature coefficient  $\pm 100$  PPM ... Lower TC available.
- When dual wattages are shown ... Lower wattages have a maximum "hotspot" of 275°C. Higher wattages have a maximum "hotspot" of 350°C.
- Available resistance range 0.5 ohm to 100,000 ohm.
- Meets or exceeds applicable specifications of MIL-R-26.
- Dimensional Tolerances  $\pm 1/32$ ".

### FIXED W/TABS: TYPE FR — 5-8, 10-12, 20, 25, 50, 100, 160-175, 200-225 WATTS

Mounting Brackets Mounting Centers Wt. (Lbs.)	FR25		FR50		FR100		FR160-175		FR200-225	
	1441-005-001 2 3/4" / .051	1441-005-001 4 3/4" / .082	1441-006-001 7 3/4" / .2	1441-007-001 9 3/4" / .445	1441-007-001 11 3/4" / .74	Ohms	Max. Amps	Max. Amps	Max. Amps	Max. Amps
1	5	7.07	10	13.2	15					
2	3.54	5	7.07		10.60					
3	2.88	4.07								
4	2.50	3.53								
5	2.24	3.16	4.47	5.92	6.72					
10	1.58	2.23	3.16	4.18	4.74					
15	1.29			3.24						
25	1	1.41	2	2.64	3					
50	.71	1	1.41	1.87	2.12					
75	.58	.82	1.15		1.73					
100	.50	.71	1	1.32	1.50					
150	.41	.58	.82	1.08						
200	.35	.50								
250	.32	.45	.63	.84	.95					
500	.22	.32	.45	.59	.67					
750	.18	.26	.37							
1000	.16	.22	.32	.42	.47					
1500	.13	.18	.22	.34	.34					
2000	.12	.16	.22	.30	.34					
2500	.10	.14								
3000	.091									
3500	.084									
4000	.079									
5000	.070	.10	.14	.19	.21					
6000	.064									
7500	.057	.081			.17					
10000	.050	.071	.10	.13	.15					
15000	.036	.057		.11						
20000	.031	.050	.071	.094	.11					
25000	.028	.045	.063	.083						
50000	.019	.026	.045	.059	.067					
75000		.021	.032	.048						
80000	.012									
100000	.0094	.018	.028	.042	.047					



	A	B	C	D	E	F	G
FR5-8	3/4	.200	1	3/4	3/4	3/2	.104
FR10-12	3/4	.200	1 1/4	3/4	3/4	3/2	.104
FR20	3/4	1/4	2	3/4	3/4	3/2	.104
FR25	3/4	3/4	2	3/4	3/4	3/2	.104
FR50	3/4	3/4	4	3/4	3/4	3/2	.144
FR100	3/4	1/2	6 1/2	3/4	3/4	3/2	.144
FR160-175	1 1/4	3/4	8 1/2	3/4	3/4	3/2	.177
FR200-225	1 1/4	3/4	10 1/2	3/4	3/4	3/2	.177

#### FEATURES:

- Tubular construction provides excellent heat dissipation.
- Welded terminals and termination guarantees positive electrical connections.
- Balanced thermal expansion between core, wire and high temperature vitreous enamel assures reliable performance.
- Long term stability results from firing at temperatures exceeding 1000°F.
- Tinned terminals provide reliable solder or mechanical connections.
- Uniform winding and coating provides uniform heat dissipation and excellent appearance.
- Available in Non-inductive winding.
- Quick disconnect terminal available as optional feature.
- Standard units supplied with push-in mounting brackets.
- Other hardware available for mounting. See Hardware Section.

#### SPECIFICATIONS:

- Resistance tolerance  $\pm 5\%$  ... closer tolerance available.
- Temperature coefficient  $\pm 100$  PPM ... Lower TC available.
- When dual wattages are shown ... Lower wattages have a maximum "hotspot" of 275°C. Higher wattages have a maximum "hotspot" of 350°C.
- Available resistance range 0.5 ohm to 100,000 ohm.
- Meets or exceeds applicable specifications of MIL-R-26.
- Dimensional Tolerances  $\pm 1/32$ " ... except  $\pm 1/16$ " on length of FR100W, FR160-175W and FR200-225W.