

INCH-POUND

MIL-F-15733/24C
27 February 2003
SUPERSEDING
MIL-F-15733/24B
2 September 1988

MILITARY SPECIFICATION SHEET

FILTERS, RADIO FREQUENCY INTERFERENCE,
HERMETICALLY SEALED, STYLE FL12

Inactive for new design after 2 September 1988. For new design use MIL-PRF-15733/58 or MIL-PRF-28861/4. See table II for substitution data.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The complete requirements for acquiring the filters described herein shall consist of this specification and the latest issue of MIL-PRF-15733.

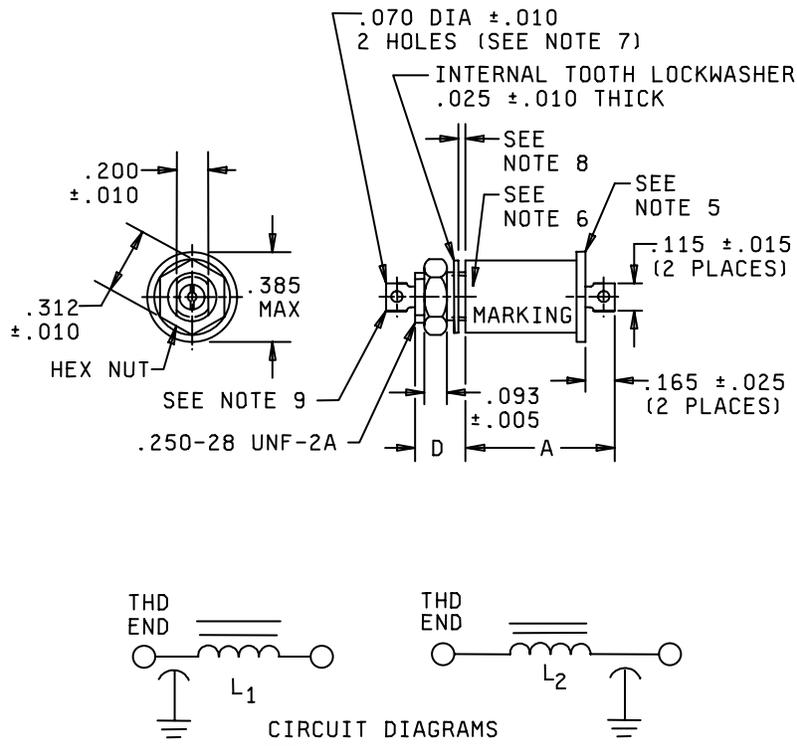


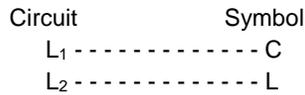
FIGURE 1. Case dimensions and circuit diagrams.

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Dash number	Dimensions		Inch	mm	Inch	mm
	A maximum	D +.010				
002, 0004, 0008			.005	.13	.187	4.75
0013, 0014, 0021, 0022	.740	.312	.010	.25	.200	5.08
0003, 0007, 0017, 0018	.740	.187	.015	.38	.250	6.35
0006, 0015, 0016, 0023, 0024	.760	.312	.025	.63	.312	7.92
01, 0005, 0009, 0010, 0011, 0012, 0019, 0020	.760	.187	.070	1.78	.385	9.78
			.093	2.36	.740	18.80
			.115	2.92	.760	19.30
			.165	4.19		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Circuit diagram is for information only.
4. All filters shall be supplied with mounting hardware.
5. Use of style FL12 with or without shoulder is optional.
6. Terminal identification (non-symmetrical filters): The case shall be marked at the threaded end of the filter with the symbol "C" or "L" as follows:



7. Optional terminal hole of $.050 \pm .010$ X $.070 \pm .010$ (1.27 ± 0.25 mm X 1.78 ± 0.25 mm) may be supplied.
8. Imperfect thread or undercut optional $.050$ (1.27 mm) inch maximum.
9. Terminals shall be aligned within 10° of the vertical (threaded bushing flats).

FIGURE 1. Case dimensions and circuit diagrams - Continued.

TABLE I. Electrical characteristics.

Dash no.	Circuit diagram	Max rated current (amp)	Max voltage drop (volts)	Minimum insertion loss (dB) in accordance with MIL-STD-220 1/																	
				At 25°C						At -55°C						At +125°C					
				30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz	30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 Gkz	30 kHz	150 kHz	300 kHz	1 MHz	10 MHz	1 GHz
0017, 0021	L ₁	.06	4.2	44	68	70	70	70	70	33	56	58	70	70	70	34	56	58	70	70	70
0009, 0013	L ₂	.06	4.2	44	68	70	70	70	70	33	56	58	70	70	70	34	56	58	70	70	70
0018, 0022	L ₁	.15	1.8	24	48	58	70	70	70	12	36	46	63	70	70	12	36	46	63	70	70
0010, 0014	L ₂	.15	1.8	24	48	58	70	70	70	12	36	46	63	70	70	12	36	46	63	70	70
0019, 0023	L ₁	.25	1.0	18	42	51	70	70	70	6	30	39	54	70	70	6	30	39	54	70	70
0011, 0015	L ₂	.25	1.0	18	42	51	70	70	70	6	30	39	54	70	70	6	30	39	54	70	70
0003, 0004	L ₁	.30	.69	16	34	44	62	70	70	4	22	32	50	70	70	4	22	32	50	70	70
0001, 0002	L ₂	.30	.69	16	34	44	62	70	70	4	22	32	50	70	70	4	22	32	50	70	70
0020, 0024	L ₁	.45	.54	15	29	33	46	66	70	3	17	21	34	54	70	3	17	21	34	54	70
0012, 0016	L ₂	.45	.54	15	29	33	46	66	70	3	17	21	34	54	70	3	17	21	34	54	70
0007, 0008	L ₁	10.0	.10	15	28	31	42	56	70	3	16	19	30	44	70	3	16	19	30	44	70
0005, 0006	L ₂	10.0	.10	15	28	31	42	56	70	3	16	19	30	44	70	3	16	19	30	44	70

1/ Insertion loss measurements shall be made under full load over the frequency range of 150 kHz to 10 MHz. Insertion loss measurements above or below this frequency range shall be made under no-load.

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REQUIREMENTS:

Dimensions and configuration: See figure 1 and table I.

Case: Metal.

Case and mounting hardware finish: In accordance with MIL-PRF-15733. Pure tin finish is prohibited.

Terminals: Solder lug.

Operating temperature range: -55° to +125°C.

Rated voltage: 28 volts, dc (derated from 50 volts, dc at 85°C).

Rated current: See table I.

Insertion loss: In accordance with MIL-PRF-15733 and table I.

Seal: In accordance with MIL-PRF-15733.

Capacitance to ground: Not applicable.

Temperature rise: 25°C, maximum.

Dielectric withstanding voltage: In accordance with MIL-PRF-15733 except the duration of application of voltage shall be 1 to 5 seconds.

Barometric pressure (reduced): In accordance with MIL-PRF-15733 except use Method 105, MIL-STD-202; test condition D (100,000 ft).

Insulation resistance: In accordance with MIL-PRF-15733 and the following:

Test temperature: 25°C.

Test potential: Rated dc voltage.

Insulation resistance: Shall be not less than 100 megohms.

Voltage drop: See table I.

Overload: In accordance with MIL-PRF-15733. After the filter has returned to room temperature, insulation resistance and voltage drop measurements shall meet initial requirements.

Terminal strength: In accordance with MIL-PRF-15733 and Method 211, MIL-STD-202; test condition A (pull).

Force: 5 pounds.

Salt atmosphere (corrosion): In accordance with MIL-PRF-15733 and Method 101, MIL-STD-202; test condition B.

Shock (specified pulse): In accordance with MIL-PRF-15733 and Method 213, MIL-STD-202; test condition I.

Vibration, high frequency: In accordance with MIL-PRF-15733 and Method 204, MIL-STD-202; test condition D (20g).

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Moisture resistance: In accordance with MIL-PRF-15733 except after the 24 hour drying period, insulation resistance shall not be less than 50 Megohms.

Life: In accordance with MIL-PRF-15733 and Method 108, MIL-STD-202, test condition D (1,000 hr) for qualification inspection; test condition B (250 hrs) for group C inspection.

Part or Identifying Number (PIN): Consists of the basic number of this specification sheet and a dash number from table I.



Supersession data: See table II.

TABLE II. Supersession data.

Inactive PIN MIL-F-15733/24-	Superseding specification sheet	Superseding PIN
0001	MIL-PRF-28861/4	M28861/04-005TB
0002	MIL-PRF-28861/4	M28861/04-023TB
0003	MIL-PRF-28861/4	M28861/04-004TB
0004	MIL-PRF-28861/4	M28861/04-022TB
0005	MIL-PRF-15733/58	M15733/58-0001
0006	MIL-PRF-15733/58	M15733/58-0001
0007	MIL-PRF-15733/58	M15733/58-0002
0008	MIL-PRF-15733/58	M15733/58-0004
0009	MIL-PRF-28861/4	M28861/04-002TB
0010	MIL-PRF-28861/4	M28861/04-002TB
0011	MIL-PRF-28861/4	M28861/04-005TB
0012	MIL-PRF-28861/4	M28861/04-008TB
0013	MIL-PRF-28861/4	M28861/04-020TB
0014	MIL-PRF-28861/4	M28861/04-020TB
0015	MIL-PRF-28861/4	M28861/04-023TB
0016	MIL-PRF-28861/4	M28861/04-026TB
0017	MIL-PRF-28861/4	M28861/04-001TB
0018	MIL-PRF-28861/4	M28861/04-001TB
0019	MIL-PRF-28861/4	M28861/04-004TB
0020	MIL-PRF-28861/4	M28861/04-007TB
0021	MIL-PRF-28861/4	M28861/04-019TB
0022	MIL-PRF-28861/4	M28861/04-019TB
0023	MIL-PRF-28861/4	M28861/04-022TB
0024	MIL-PRF-28861/4	M28861/04-025TB

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Initial qualification to MIL-F-15733/24 may be granted based on qualification to MIL-PRF-28861/1 as indicated in table III. Extension of qualification from MIL-PRF-28861/1 to MIL-F-15733/24 is permissible under the following provisions:

- a. The MIL-F-15733/24 parts use the same design and dielectric characteristics as the MIL-PRF-28861/1 parts.
- b. The MIL-PRF-28861/1 qualification data verifies that the physical and electrical characteristics of the MIL-F-15733/24 parts are satisfied.

TABLE III. Extension of qualification.

Qualification to MIL-PRF-28861/01	Will qualify MIL-F-15733/24
-0001	-0005
-0001	-0006
-0001	-0007
-0001	-0008

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5915-0412-05)

Review activities:
Army - AR, AT, AV, MI
Navy - AS, MC, OS, SH
Air Force - 19, 99