

PERFORMANCE SPECIFICATION SHEET

FILTERS, RADIO FREQUENCY INTERFERENCE,
HERMETICALLY SEALED, STYLE FL91

Part numbers M15733/39-0007, -0008, -0011, -0013, are inactive for new design as of 19 August 1981. See table II for substitution data.

This specification sheet 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 sheet and the latest issue of MIL-PRF-15733.

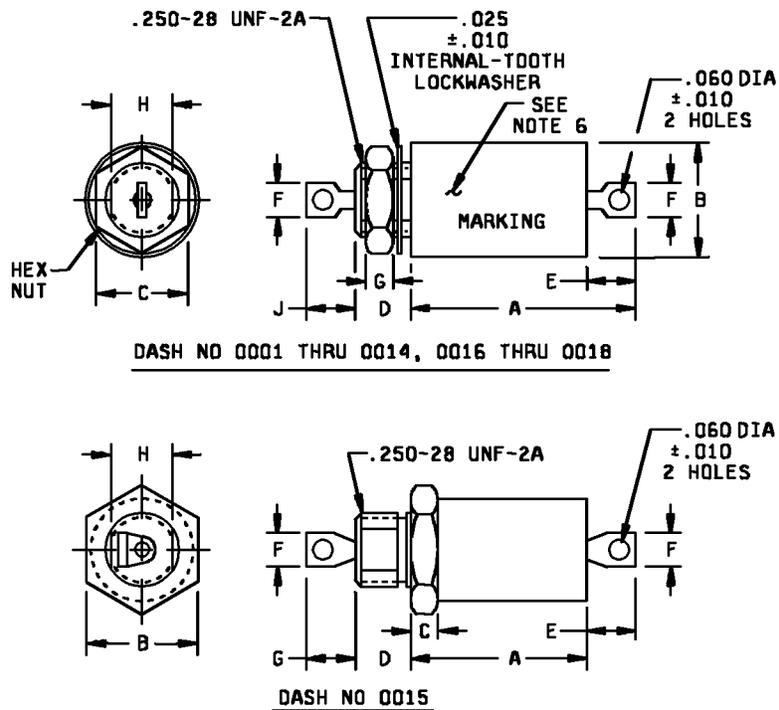


FIGURE 1. Case dimensions and circuit diagrams.

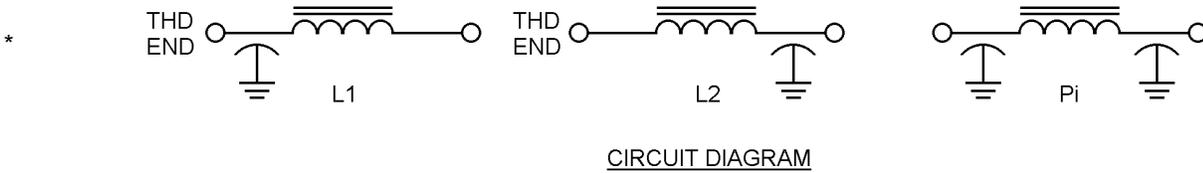
Dash number	A Max	B Max	C		D		E		F		G		H		J Max	Maximum weight (grams)
			Min	Max												
0001	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0002	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0003	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0004	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0005	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0006	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0007 1/	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0008 1/	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0009	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0010	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0011 1/	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0012	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.177 (4.50)	.197 (5.00)	.140 (3.56)	.190 (4.83)	.083 (2.11)	.130 (3.30)	.088 (2.24)	.098 (2.49)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0013 1/	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.302 (7.67)	.322 (8.18)	---	.190 (4.83)	---	.115 (2.92)	.091 (2.31)	.096 (2.44)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0014	.760 (19.30)	.385 (9.78)	.302 (7.67)	.322 (8.18)	.302 (7.67)	.322 (8.18)	---	.190 (4.83)	---	.115 (2.92)	.091 (2.31)	.096 (2.44)	.190 (4.83)	.210 (5.33)	.150 (3.81)	28.4
0015	.509 (12.93)	.385 (9.78)	.120 (3.05)	.130 (3.30)	.302 (7.67)	.322 (8.18)	---	.190 (4.83)	---	.115 (2.92)	---	1.50 (3.81)	.190 (4.83)	.210 (5.33)	---	28.4
0016	.80 (20.3)	.416 (10.57)	---	---	.180 (4.57)	.200 (5.08)	---	.357 (9.07)	.099 (2.51)	.119 (3.02)	---	---	.190 (4.83)	.210 (5.33)	---	10.0
0017	.80 (20.3)	.416 (10.57)	---	---	.180 (4.57)	.200 (5.08)	---	.357 (9.07)	.099 (2.51)	.119 (3.02)	---	---	.190 (4.83)	.210 (5.33)	---	10.0
0018	.80 (20.3)	.416 (10.57)	---	---	.180 (4.57)	.200 (5.08)	---	.357 (9.07)	.099 (2.51)	.119 (3.02)	---	---	.190 (4.83)	.210 (5.33)	---	10.0

2

MIL-PRF-15733/39J
w/Amendment 1

1/ Inactive for new design.

FIGURE 1. Case dimensions and circuit diagrams - Continued.



NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parentheses.
3. Metric equivalents are given for general information only.
4. Circuit diagram is for information only.
5. Filters shall be supplied with mounting hardware.
6. Terminal identification (nonsymmetrical filters): The case shall be marked at the threaded end of the filter, with the symbol "C" or the symbol "L", as follows:

Circuit	Symbol
L_1	C
L_2	L

7. Recommended mounting torque: 48 in-oz.

FIGURE 1. Case dimensions and circuit diagrams - Continued

TABLE I. Electrical characteristics.

Rated voltage (volts dc)	Circuit diagram	Max current (amps)	Max voltage drop (volts)	Capacitance μ F GMV	Minimum insertion loss (dB) in accordance with MIL-STD-220 1/																Dash number
					AT +25°C								AT -55°C and +125°C								
					30 kHz	100 kHz	150 kHz	300 kHz	1 MHz	10 MHz	100 MHz	1 GHz	30 kHz	100 kHz	150 kHz	300 kHz	1 MHz	10 MHz	100 MHz	1 GHz	
100	L ₁	.5	1.0	.66	6	---	28	40	60	60	60	70	4	---	26	38	58	58	60	70	0001
100	L ₂	.5	1.0	.66	6	---	28	40	60	60	60	70	4	---	26	38	58	58	60	70	0002
100	L ₁	1.0	.25	.45	6	---	20	30	50	60	60	70	4	---	18	28	48	58	60	70	0003
100	L ₂	1.0	.25	.45	6	---	20	30	50	60	60	70	4	---	18	28	48	58	60	70	0004
100	L ₁	2.0	.14	.45	6	---	20	26	40	60	60	70	4	---	18	24	38	58	60	70	0005
100	L ₂	2.0	.14	.45	6	---	20	26	40	60	60	70	4	---	18	24	38	58	60	70	0006
100	L ₁	5.0	.075	.45	6	---	20	26	35	60	60	70	4	---	18	24	33	58	60	70	0007 2/
100	L ₂	5.0	.075	.45	6	---	20	26	35	60	60	70	4	---	18	24	33	58	60	70	0008 2/
100	L ₁	10.0	.03	.45	6	---	20	26	35	56	60	70	4	---	18	24	33	54	60	70	0009
100	L ₂	10.0	.03	.45	6	---	20	26	35	56	60	70	4	---	18	24	33	54	60	70	0010
100	P _i	10.0	.03	.99	9	---	24	29	40	70	70	70	7	---	22	27	38	68	70	70	0011 2/
100	P _i	10.0	.03	.99	9	---	24	29	40	70	70	70	7	---	22	27	38	68	70	70	0012
100	P _i	10.0	.03	1.5	9	---	24	29	40	70	70	70	7	---	22	27	38	68	70	70	0015
100	P _i	.25	.38	1.5	---	58	---	76	80	80	80	80	---	56	---	74	78	78	80	80	0016
100	P _i	3.0	.18	1.5	---	14	---	41	76	80	80	80	---	12	---	39	74	78	80	80	0017
100	P _i	5.0	.20	1.5	---	---	---	28	68	80	80	80	---	---	---	26	66	78	80	80	0018
50	L ₂	10.0	.03	1.4	14	---	28	34	44	52	70	70	12	---	26	32	42	50	70	70	0013 2/
50	L ₁	10.0	.03	1.4	14	---	28	34	44	52	70	70	12	---	26	32	42	50	70	70	0014

1/ Insertion loss measurements shall be made under full load over the frequency range of 100 kHz to 10 MHz. Insertion loss measurements above or below this frequency range shall be made under no load.

2/ Inactive for new design.

MIL-PRF-15733/39J
w/Amendment 1

REQUIREMENTS:

Dimensions and configuration: See figure 1.

Weight: See figure 1.

Case: Metal.

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

Seal: Metal-to-glass.

Terminals: Solderable.

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

Rated voltage: See table I.

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

Dissipation factor: 3.0 percent maximum.

Temperature rise: 25°C, maximum.

Barometric pressure (reduced): In accordance with MIL-PRF-15733 and method 105, MIL-STD-202, test condition D (100,000 ft) for -0001 through -0010; Test condition C (70,000 ft) for -0011 through -0015; and test condition B (50,000 ft) for -0016 through -0018.

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

At 25°C the insulation resistance shall not be less than 1000 megohms.

At +125°C the insulation resistance shall not be less than 100 megohms.

Voltage drop: See table I.

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 A.

Shock (specified pulse): In accordance with MIL-PRF-15733 and method 213, MIL-STD-202. The following details apply:

Test condition I - (-0001 thru -0014 and -0016 through -0018).

Test condition A - (-0015).

MIL-PRF-15733/39J
w/Amendment 1

Vibration, high frequency: In accordance with MIL-PRF-15733 and method 204, MIL-STD-202; test condition D (20G). The following detail shall apply:

Temperature conditioning: Prior to vibration, filters shall be heated in an oven to +125°C plus one-half the temperature rise. Vibration in each plane shall begin within 5 minutes after removal of filters from the oven.

Part or Identifying Number (PIN): M15733/39-(dash number from table I).

Extension of qualification:

Qualification testing and approval to M15733/39-0014 shall be sufficient to grant qualification approval to M15733/39-0013 and M15733/39-0014.

Qualification testing and approval to M15733/39-0012 and M15733/39-0016 shall be sufficient to grant qualification approval to M15733/39-0001 through -0012 and M15733/39-0015 through -0018.

Substitution data: See table II.

Table II. Substitution data.

Inactive PIN	Superseding specification	Superseding PIN
M15733/39-0007	MIL-PRF-28861/2	M28861/02-010TB
M15733/39-0008	MIL-PRF-28861/2	M28861/02-011TB
M15733/39-0011	MIL-PRF-15733/39	M15733/39-0012
M15733/39-0013	MIL-PRF-28861/1	M28861/01-001TB

NOTES:

Referenced documents. In addition to MIL-PRF-15733, this specification sheet references the following documents:

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-202

Test Method Standard, Electronic and Electrical Component Parts

(Government documents are available on line at <http://assist.daps.dla.mil/quicksearch> or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue 4D, Philadelphia, PA 19111-5094).

Amendment notations. The margins of this specification sheet are marked with asterisks to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

MIL-PRF-15733/39J
w/Amendment 1

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

Preparing activity:
DLA - CC

(Project 5915-0444)

Review activities:
Army - AT, AV
Navy - AS, CG, MC, OS, SH
Air Force – 99

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at www.dodssp.daps.mil.