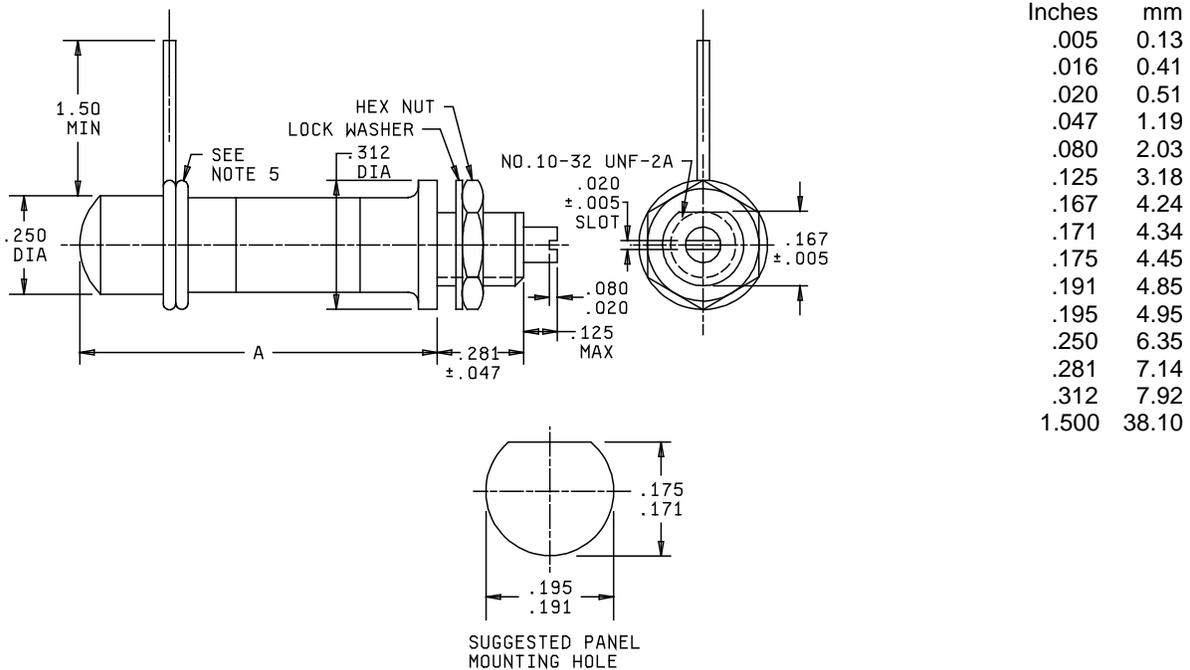


PERFORMANCE SPECIFICATION SHEET  
CAPACITORS, VARIABLE (PISTON TYPE,  
TUBULAR TRIMMER), STYLES PC38 AND PC48

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

The requirements for acquiring the product described herein shall consist of this specification sheet and [MIL-PRF-14409](#).



**NOTES:**

1. Dimensions are in inches.
2. Metric equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
3. Unless otherwise specified, tolerance is ±.016.
4. The flat on the mounting bushing shall extend to the mounting surface of the shoulder.
5. There shall be a minimum of one and one-half turns of wire around the body. These turns of wire shall be completely soldered to the body. For wire sizes see table I.
6. For dimension A see table I.

FIGURE 1. Dimensions and configuration.

MIL-PRF-14409/4E

REQUIREMENTS:

Dimensions: See figure 1 and table I.

DC voltage rating: See table I.

Construction: Sealed glass or quartz, see figure 1 and table I.

Capacitance range: See table I.

Insulation resistance (IR): [Method 302 of MIL-STD-202](#), test condition B (500 volts  $\pm 10$  percent); not less than 1,000,000 megohms, except characteristics J and H shall be not less than 100,000 megohms at 125°C.

Quality factor (Q): See table I.

Thermal Shock: [Method 107 of MIL-STD-202](#), test condition A, except the step 3 temperature shall be 125°C  $\pm 5$ °C for characteristics J and H, and 150°C  $\pm 5$ °C for characteristic Q.

Immersion: [Method 104 of MIL-STD-202](#), test condition A.

Seal test: Applicable.

TABLE I. Type designations and characteristics.

Type designation	DC rated voltage	Capacitance range		Dimensions <sup>1/</sup> A $\pm 0.031$ (0.79)	Q	Wire size AWG	Dielectric material
		Min	Max				
	volts	$\mu$ F	$\mu$ F				
PC38Q1R8	750	0.6	1.8	.359 ( 9.12)	1,500	24	Quartz
PC38Q5R5	1,250	0.6	5.5	.625 (15.88)	1,500	22	Quartz
PC38Q9R5	1,250	0.6	9.5	1.062 (26.97)	1,500	22	Quartz
PC38Q160	1,250	0.8	16.0	1.656 (42.06)	1,500	22	Quartz
PC48J5R5	750	0.8	5.5	.359 ( 9.12)	1,000	24	Glass
PC48J110	1,250	0.8	11.0	.594 (15.09)	900	22	Glass
PC48H160	1,250	0.8	16.0	.812 (20.62)	800	22	Glass
PC48H230	1,250	0.8	23.0	1.062 (26.97)	700	22	Glass
PC48H380	1,250	1.0	38.0	1.656 (42.06)	500	22	Glass

<sup>1/</sup> Metric equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm. Millimeters are in parentheses.

TABLE II. Substitutability data.

Superseded type designation in MIL-PRF-14409/4	Substitutable type designation in MIL-PRF-14409/4A through /4E
PC38J4R5	PC48J5R5
PC38J8R5	PC48J110
PC38H120	PC48H160
PC38H180	PC48H230
PC38H300	PC48H380

Changes from previous issue: The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. 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 and relationship to the last previous issue.

Referenced documents: In addition to [MIL-PRF-14409](#), this document also references [MIL-STD-202](#).

Custodians:  
Army - CR  
Navy - EC  
Air Force - 85  
DLA - CC

Preparing activity:  
DLA - CC  
  
(Project 5910-2013-028)

Review activities:  
Navy - AS, MC, OS

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 <https://assist.dla.mil>.