

OUR FOCUS IS ON FEED-THROUGH FILTERS

LINE CARD



WWW.EMIFILTERCOMPANY.COM





GETTING TO KNOW EMI FILTER COMPANY

EMI Filter Company is a leading manufacturer of Bulkhead Mounted EMI/RFI Low-Pass Filters in threaded, solder-in and press-in styles for the microwave communications industry. EMI was founded over 50 years ago by my parents Larry and Pat Nordquist who put their life savings at risk and started manufacturing filters in the back of their house. Larry built most of the equipment himself with minimal machine shop assistance. From these humble origins, they grew their company to where it is today – a family-owned and operated business that has proudly served filter manufacturers for nearly 50 years.

We are proud to say EMI still designs and assembles all their products in the USA. While others moved offshore, EMI developed the best automated filter assembly line in the industry. Holding multiple patents covering automated assembly and press-in style technology, has enabled EMI to shorten industry standard lead time from 18 weeks down to 4 weeks.

At EMI, since our focus is solely on filters, we are not only able to provide you with standard filter sizes, we are also able to build custom filters to your specifications. All our filters are 100% tested to ensure their quality.

Whether your filter requirements are standard or custom, we're ready to take your order! We encourage you to call us at 1.800.323.7990 or email sales@emifiltercompany.com, we look forward to working with you!

Ted Nordquist
President, EMI Filter Company

4-40 THREADED BODY STYLE

B3 SERIES



OVERVIEW

B3 Series has a short .140" thread and a mini .125" hex head. An EMI original, now one of the most popular threaded filters in the world.

ELECTRICAL CHARACTERISTICS

4-40 UNC-2A Thread

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .032" dia lead

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

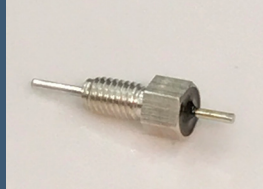
Mini .140" long thread
.125" hex head x .075" tall
.032" diameter lead
standard

Silver plating per
QQ-S-365
Other plating available

Max 2.0 inch*lbs
installation torque

RoHS Compliant

B4 SERIES



OVERVIEW

B4 Series is our version of the classic industry standard 4-40 body with the longer thread and taller hex head. A popular choice.

ELECTRICAL CHARACTERISTICS

4-40 UNC-2A Thread

0-10nF rated 200 VDC
15nF-50nF rated 100 VDC
100nF rated 50 VDC

10A with std .032" dia lead

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

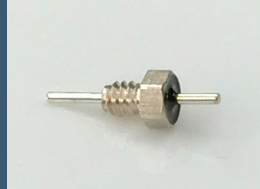
A .220" long thread
.156" hex head x .120" tall
.032" diameter lead
standard

Silver plating per
QQ-S-365
Other plating available

Max 2.0 inch*lbs
installation torque

RoHS Compliant

B5 SERIES



OVERVIEW

B5 Series combines the short thread of the B3 and the larger head of the B4 series to achieve higher capacitance/voltage ratings.

ELECTRICAL CHARACTERISTICS

4-40 UNC-2A Thread

0-10nF rated 200 VDC
15nF-50nF rated 100 VDC
100nF rated 50 VDC

10A with std .032" dia lead

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

Mini .140" long thread
.156" hex head x .075" tall
.032" diameter lead
standard

Silver plating per
QQ-S-365
Other plating available

Max 2.0 inch*lbs
installation torque

RoHS Compliant

R3 SERIES



OVERVIEW

R3 Series is the same as our B3 with a round head. Allows the tightest spacing of any 4-40 filter.

ELECTRICAL CHARACTERISTICS

4-40 UNC-2A Thread

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .032" dia lead

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

Mini .140" long thread
.125 round head x .100 tall
.032" diameter lead
standard

Silver plating per
QQ-S-365
Other plating available

Max 2.0 inch*lbs
installation torque

RoHS Compliant

T4 SERIES



OVERVIEW

T4 series is big performance meets small size! Ideal for situations where high attenuation is required and lower current is present.

ELECTRICAL CHARACTERISTICS

4-40 UNC-2A Thread

"C" circuit up to 500nF
"L" circuit up to 500nF
"Pi" circuit up to 200nF
"T" circuit up to 100nF

10A with std .032" dia lead

Available in "C", "L", "Pi" and "T" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

.220 long Thread
.156" hex-.187" barrel
.032" diameter lead
standard

Silver plating per
QQ-S-365
Other plating available

Max 2.0 inch*lbs
installation torque

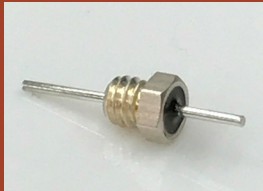
RoHS Compliant



8-32 THREADED BODY STYLE

M3.0X.5MM THREADED BODY STYLE

B7 SERIES



OVERVIEW

B7 Series : the short .140" thread is designed to minimize bulkhead protrusion. Shallow head, capacitances up to .1uF

ELECTRICAL CHARACTERISTICS

8-32 UNC-2A Thread

0-10nF rated 200 VDC
15nF-50nF rated 100 VDC
100nF rated 50 VDC

10A with std .032" dia lead

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

Mini .140" long thread
.187" hex x .075" tall head
.032" diameter lead standard

Silver plating per QQ-S-365
Other plating available

Max 6.0 inch*lbs installation torque

RoHS Compliant

B8 SERIES



OVERVIEW

B8 series is the grandfather of all miniature filters. Economical, ideal for where size and weight is not a consideration. Capacitance values up to .1uF

ELECTRICAL CHARACTERISTICS

8-32 UNC-2A Thread

0-10nF rated 200 VDC
15nF-50nF rated 100 VDC
100nF rated 50 VDC

10A with std .032" dia lead

Available in "C", "L" & "Pi" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

.266" long Thread
.187" hex x .095" tall head
.032" diameter lead standard

Silver plating per QQ-S-365
Other plating available

Max 6.0 inch*lbs installation torque

RoHS Compliant

T7 SERIES



OVERVIEW

T7 Series is an EMI original. Broadband performance with a short .140" thread. Use instead of bulky 1/4-28s where high attenuation is required and low current is present.

ELECTRICAL CHARACTERISTICS

8-32 UNC-2A Thread

"C" circuit up to 500nF
"L" circuit up to 500nF
"Pi" circuit up to 200nF
"T" circuit up to 100nF

10A with std .032" dia lead

Available in "C", "L", "Pi" and "T" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

Mini .140" long thread
.187" hex x .260" high head
.032" diameter lead standard

Silver plating per QQ-S-365
Other plating available

Max 6.0 inch*lbs installation torque

RoHS Compliant

M3 SERIES



OVERVIEW

M3 series has the same short thread and mini head as the B3 series but with a metric M3.0x.5mm thread.

ELECTRICAL CHARACTERISTICS

M3.0x.5mm Thread

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .0323"/.81mm dia lead.

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

.140"/3.55mm long thread
.125"/3.17mm hex head
x .075"/1.90mm tall

Silver plating per QQ-S-365
Other plating available

Max 2.0 inch*lbs/.226 Nm installation torque

RoHS Compliant

M4 SERIES



OVERVIEW

M4 series has the longer thread and larger head like the B4 series but with a M3.0x.5mm thread

ELECTRICAL CHARACTERISTICS

M3.0x.5mm Thread

0-10nF rated 200 VDC
15nF-50nF rated 100 VDC
100nF rated 50 VDC

10A with std .0323"/.81mm dia lead.

Available in "C" & "L" circuits

Resin sealed

PHYSICAL CHARACTERISTICS

A .220"/5.59mm long thread
156"/3.96mm hex head
x .120"/3.05mm tall

Silver plating per QQ-S-365
Other plating available

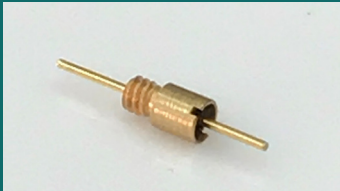
Max 2.0 inch*lbs/.226 Nm installation torque

RoHS Compliant



2-56 THREADED BODY STYLE

B2 SERIES



OVERVIEW

B2 series is our version of the industry standard 2-56 threaded filter. Round head and short thread. Gold plating standard.

ELECTRICAL CHARACTERISTICS

2-56 UNC-2A Thread

0-1.5nF rated 200 VDC
2.7-5nF rated 100VDC
10nF rated 50VDC

5A with either .020" or .024" dia lead.

Available in "C" circuit

Resin sealed

PHYSICAL CHARACTERISTICS

.090" long thread
.105 round head x .110" tall
.020" or .024" dia. lead standard.

MIL-G -45204 Type 3 Grade A Class 1 Gold plating standard. Other plating available

Max 1.0 inch*lbs installation torque

RoHS Compliant

1/4-28 THREADED BODY STYLE

KH SERIES



OVERVIEW

KH is our version of the double hermetic "button" 1/4-28s. Custom values are available.

ELECTRICAL CHARACTERISTICS

1/4-28 UNF-2A Thread

10nF-150nF rated 400 VDC
250nF rated 300 VDC
Higher values available

15A with std .040 lead, flag terminals

Available in "C" & "L" circuits

Hermetic on both ends.

PHYSICAL CHARACTERISTICS

Short .187" long thread
.375" dia head x .175" tall

Tin over Nickel plating standard
Other plating available

Max 7 inch*lbs installation torque

KR SERIES



OVERVIEW

KR is resin sealed on both ends. An economical choice for higher capacitance/voltage/current needs. Custom values available.

ELECTRICAL CHARACTERISTICS

1/4-28 UNF-2A Thread

10nF-150nF rated 400 VDC
250nF rated 300 VDC
Higher values available

20A with std .050" dia lead

Available in "C" & "L" circuits

Resin seal on both ends.

PHYSICAL CHARACTERISTICS

Short .187" long thread
.377" dia head x .150" tall
.050" diameter lead

Tin over Nickel plating standard
Other plating available

Max 7 inch*lbs installation torque

PRESS-IN BODY STYLE

PZ SERIES



OVERVIEW

The PZ series is another EMI original. Patented design requires less insertion force and no residual compression failures. .156" flange, hermetic on the barrel end.

ELECTRICAL CHARACTERISTICS

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .030" dia lead

Available in "C" circuit

Hermetic on barrel end, resin on flange end.

PHYSICAL CHARACTERISTICS

.156" flange
Press-In hole .1405 +/- .001"
Solder-in hole .144 +/- .001"

Gold per MIL-G -45204 Type III Grade A, Class 1
Other plating available

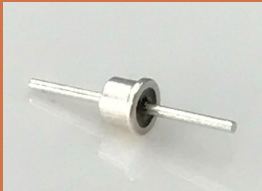
309 deg C internal solder

RoHS Compliant



SOLDER-IN BODY STYLE

ZP SERIES



OVERVIEW

ZP Series is Non-Hermetic .128" barrel, .153" flange. The lowest cost solder-in. Silver plated. Values up to .033uF

ELECTRICAL CHARACTERISTICS

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .030" dia lead

Available in "C" circuit

Resin sealed

PHYSICAL CHARACTERISTICS

.128" barrel, .156" flange
.090" body length w/out flange
.030" diameter lead

Silver plating per QQ-S-365
Other plating available

309 deg C internal solder

RoHS Compliant

ZS SERIES



OVERVIEW

ZS Series is the most popular hermetic solder-in in the world, .128" barrel and .153" flange. The Hermetic on the barrel end. Gold plated. Values up to .033uF

ELECTRICAL CHARACTERISTICS

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .030" dia lead

Available in "C" circuit

Hermetic on barrel end, resin on flange end.

PHYSICAL CHARACTERISTICS

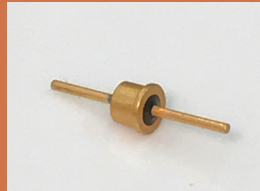
.128" barrel, .156" flange
.090" body length w/out flange
.030" diameter lead

Gold per MIL-G-45204 Type II, Class 0
Other plating available

309 deg C internal solder

RoHS Compliant

ZR SERIES



OVERVIEW

ZR Series is the same as the ZS except the hermetic seal is on the flange end. Sometimes called "Reverse Hermetic". Gold plated. Values up to .033uF

ELECTRICAL CHARACTERISTICS

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .030" dia lead

Available in "C" circuit

Hermetic on flange end, resin on barrel end.

PHYSICAL CHARACTERISTICS

.128" barrel, .156" flange
.090" body length w/out flange
.030" diameter lead

Gold per MIL-G-45204 Type II, Class 0
Other plating available

309 deg C internal solder

RoHS Compliant

XS SERIES



OVERVIEW

The XS is the next generation of smaller commercial hermetic solder-ins. .125" spacing.

ELECTRICAL CHARACTERISTICS

0-1.5nF rated 200 VDC
2.7-5nF rated 100VDC
10nF rated 50VDC

5A with std .020" dia lead

Available in "C" circuit

Hermetic on barrel end, resin on flange end.

PHYSICAL CHARACTERISTICS

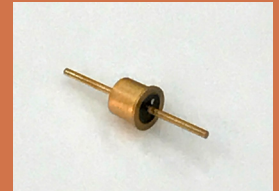
.105" barrel, .125" flange
.090" body length w/out flange
.020" diameter lead

Gold per MIL-G-45204 Type III Grade A, Class 1
Other plating available

309 deg C internal solder

RoHS Compliant

YS SERIES



OVERVIEW

The YS is like the ZS, but slimmed down. Can achieve .150" spacing. Hermetic on the barrel end.

ELECTRICAL CHARACTERISTICS

0-5nF rated 200 VDC
10nF-15nF rated 100VDC
22nF-33nF rated 50 VDC

10A with std .030" dia lead

Available in "C" circuit

Hermetic on barrel end, resin on flange end.

PHYSICAL CHARACTERISTICS

.120" barrel, .140" flange
.090" body length w/out flange
.030" diameter lead

Gold per MIL-G-45204 Type II, Class 1
Other plating available

309 deg C internal solder

RoHS Compliant



MIL-PRF-28861 ALTERNATIVE TESTING

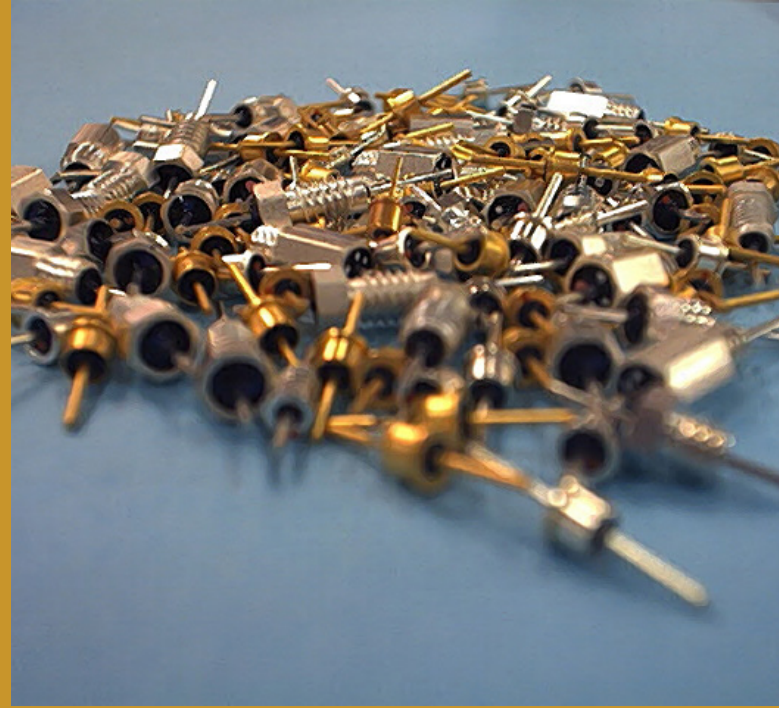
EMI offers a lower cost alternative to meet the meaningful screening requirements of MIL-PRF-28831 Group A, Class B testing. The need for high quality filters with proven reliability now meets commercial pricing pressures. Our economical approach allows both military and commercial development of new ideas to proceed without the heavy burdens of cost, time, and volumes of paper. MIL-PRF-28861 is a large ponderous document covering a multitude of filter types and constructs. No test is specific for a specific construct, circuit or value. Therefore, all tests, regardless of their appropriateness, are required on all filters. EMI performs only the appropriate tests reducing time and cost.

ANALYSIS AND ENVIRONMENTAL TESTS

EMI routinely performs burn-in, temperature and other advanced testing. Since we make what we sell, put our expertise to work for you.



CUSTOM FILTERS



EMI can build custom filters per your specification or let us suggest a cost effective solution to get the job done. As we do with all our filters, they are 100% tested to ensure quality.