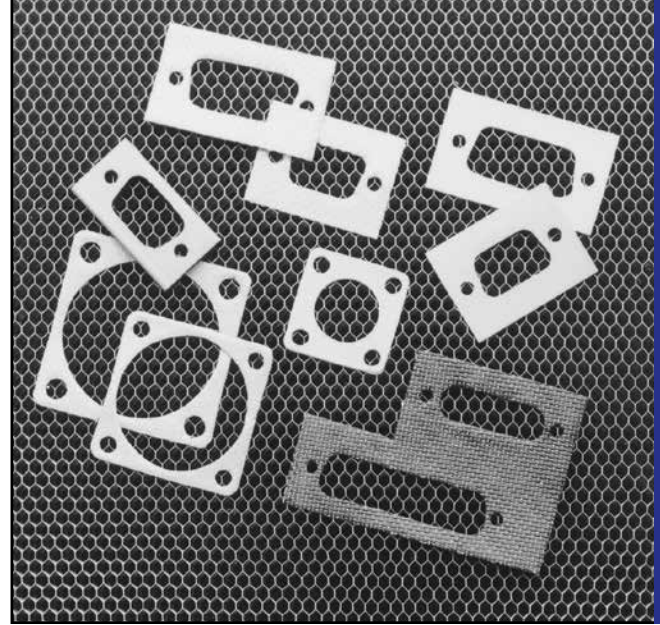


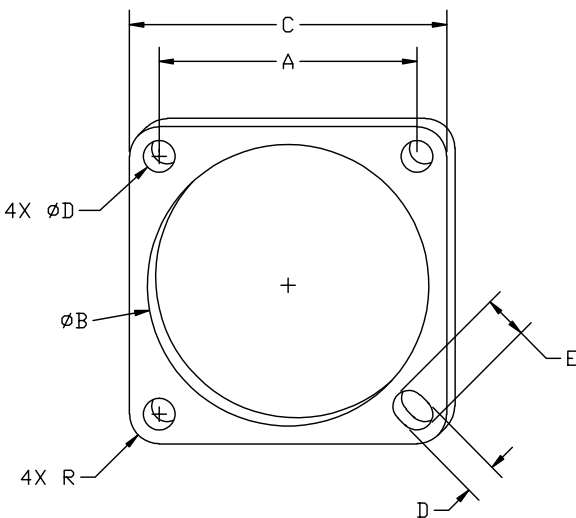
EMI/RFI Gaskets for Connectors (2000 Series)

Grounding of Connectors to an enclosure bulkhead in a manner that will reduce the ingress or egress of EMI/RFI interference can be accomplished through the use of the following connector gaskets.



Design Data - Dimensional Characteristics

EMI/RFI Shielding Connector Gasket — Figure 1



Standard sized gaskets for MIL-38999, MIL-5015, MIL-26482, AN, HT, RF and many other connectors can be found on the following page and on our website at www.majr.com under “connector gaskets”. Custom sizes can also be made upon request.

Features

- **Material Choice:** Connector gaskets materials can be selected to meet environmental and mechanical requirements of the package to be shielded.
- **Standardization:** Die-cut connector gaskets are available for standard type connectors.
- **Low Cost:** MAJR's connector gaskets offer optimum RF grounding of connectors at minimal cost.
- **EMI Shield and Moisture Seal:**
 - The elastomer embedded product both an EMI shield and moisture seal in a minimum thickness, thus not requiring extended protrusion from surface of enclosures.

EMI/RFI Mounting Flange Gaskets for Connectors — Table 1

| Shell Size | MIL-DTL-38999 SERIES | | | | MIL P/N: M83528/004X-[] | Dimensions | | | | | Part Numbers | | |
|------------|----------------------|----|-----|----|--------------------------|------------|-------|-------|-------|-------|---|---|--|
| | I | II | III | IV | | A | B | C | D | E | MULTICON (Oriented wire in silicone) P/N: | RADTHIN (Elastomer impregnated wire) P/N: | CONDUCTIVE ELASTOMER & M83528/004X-[] P/N: |
| 6 | | | | | [001] | 0.469 | 0.375 | 0.738 | 0.141 | 0.141 | 2047-60601-XX | 2040-60601-XX | 2050-60601-XX |
| 8 | | √ | | | [002] | 0.594 | 0.630 | 0.840 | 0.135 | | 2047-60802-XX | 2040-60802-XX | 2050-60802-XX |
| | | | | | [003] | 0.594 | 0.568 | 0.812 | 0.125 | | 2047-60803-XX | 2040-60803-XX | 2050-60803-XX |
| | | | | | [004] | 0.594 | 0.500 | 0.875 | 0.156 | | 2047-60804-XX | 2040-60804-XX | 2050-60804-XX |
| | | | | | [005] | 0.719 | 0.750 | 0.965 | 0.135 | | 2047-60903-XX | 2040-60903-XX | 2050-60903-XX |
| 9 | √ | | | | [005] | 0.719 | 0.750 | 0.965 | 0.135 | 0.222 | 2047-60904-XX | 2040-60904-XX | 2050-60904-XX |
| 10 | | √ | | | [005] | 0.719 | 0.750 | 0.965 | 0.135 | | 2047-61003-XX | 2040-61003-XX | 2050-61003-XX |
| | | | | | [006] | 0.719 | 0.680 | 0.937 | 0.125 | | 2047-61004-XX | 2040-61004-XX | 2050-61004-XX |
| | | | | | [007] | 0.719 | 0.625 | 1.000 | 0.156 | | 2047-61005-XX | 2040-61005-XX | 2050-61005-XX |
| 11 | √ | | | √ | [008] | 0.812 | 0.875 | 1.060 | 0.141 | | 2047-61101-XX | 2040-61101-XX | 2050-61101-XX |
| 12 | | √ | | | [008] | 0.812 | 0.875 | 1.060 | 0.141 | 0.206 | 2047-61103-XX | 2040-61103-XX | 2050-61103-XX |
| | | | | | [009] | 0.813 | 0.750 | 1.094 | 0.156 | | 2047-61202-XX | 2040-61202-XX | 2050-61202-XX |
| 13 | √ | | | √ | [010] | 0.906 | 1.005 | 1.153 | 0.135 | | 2047-61203-XX | 2040-61203-XX | 2050-61203-XX |
| | | | | | [010] | 0.906 | 1.000 | 1.156 | 0.141 | 0.206 | 2047-61305-XX | 2040-61305-XX | 2050-61305-XX |
| 14 | | √ | | | [010] | 0.906 | 1.005 | 1.153 | 0.135 | | 2047-61306-XX | 2040-61306-XX | 2050-61306-XX |
| | | | | | [011] | 0.906 | 0.938 | 1.125 | 0.125 | | 2047-61401-XX | 2040-61401-XX | 2050-61401-XX |
| | | | | | [012] | 0.906 | 0.875 | 1.188 | 0.156 | | 2047-61402-XX | 2040-61402-XX | 2050-61402-XX |
| 15 | √ | | | √ | [013] | 0.969 | 1.135 | 1.258 | 0.156 | | 2047-61403-XX | 2040-61403-XX | 2050-61403-XX |
| | | | | | [013] | 0.969 | 1.135 | 1.258 | 0.156 | 0.206 | 2047-61501-XX | 2040-61501-XX | 2050-61501-XX |
| 16 | | √ | | | [013] | 0.969 | 1.135 | 1.258 | 0.156 | | 2047-61503-XX | 2040-61503-XX | 2050-61503-XX |
| | | | | | [014] | 0.969 | 1.063 | 1.250 | 0.125 | | 2047-61602-XX | 2040-61602-XX | 2050-61602-XX |
| | | | | | [015] | 0.969 | 1.000 | 1.281 | 0.156 | | 2047-61603-XX | 2040-61603-XX | 2050-61603-XX |
| 17 | √ | | | √ | [016] | 1.062 | 1.260 | 1.351 | 0.156 | | 2047-60604-XX | 2040-60604-XX | 2050-60604-XX |
| | | | | | [016] | 1.062 | 1.260 | 1.351 | 0.156 | 0.222 | 2047-61701-XX | 2040-61701-XX | 2050-61701-XX |
| 18 | | √ | | | [016] | 1.062 | 1.260 | 1.351 | 0.156 | | 2047-61703-XX | 2040-61703-XX | 2050-61703-XX |
| | | | | | [017] | 1.062 | 1.189 | 1.343 | 0.125 | | 2047-61801-XX | 2040-61801-XX | 2050-61801-XX |
| | | | | | [018] | 1.062 | 1.135 | 1.375 | 0.156 | | 2047-61802-XX | 2040-61802-XX | 2050-61802-XX |
| 19 | √ | | | √ | [019] | 1.156 | 1.375 | 1.500 | 0.141 | | 2047-61803-XX | 2040-61803-XX | 2050-61803-XX |
| | | | | | [019] | 1.156 | 1.375 | 1.500 | 0.141 | 0.206 | 2047-61901-XX | 2040-61901-XX | 2050-61901-XX |
| 20 | | √ | | | [019] | 1.156 | 1.375 | 1.500 | 0.141 | | 2047-61903-XX | 2040-61903-XX | 2050-61903-XX |
| | | | | | [020] | 1.156 | 1.312 | 1.467 | 0.125 | | 2047-62002-XX | 2040-62002-XX | 2050-62002-XX |
| | | | | | [021] | 1.156 | 1.250 | 1.500 | 0.172 | | 2047-62003-XX | 2040-62003-XX | 2050-62003-XX |
| 21 | √ | | | √ | [022] | 1.250 | 1.500 | 1.625 | 0.141 | | 2047-62004-XX | 2040-62004-XX | 2050-62004-XX |
| | | | | | [022] | 1.250 | 1.500 | 1.625 | 0.141 | 0.206 | 2047-62101-XX | 2040-62101-XX | 2050-62101-XX |
| 22 | | √ | | | [022] | 1.250 | 1.500 | 1.625 | 0.141 | | 2047-62103-XX | 2040-62103-XX | 2050-62103-XX |
| | | | | | [023] | 1.250 | 1.437 | 1.562 | 0.125 | | 2047-62202-XX | 2040-62202-XX | 2050-62202-XX |
| | | | | | [024] | 1.250 | 1.375 | 1.625 | 0.172 | | 2047-62203-XX | 2040-62203-XX | 2050-62203-XX |
| 23 | √ | | | √ | [025] | 1.375 | 1.625 | 1.750 | 0.172 | | 2047-62201-XX | 2040-62201-XX | 2050-62201-XX |
| | | | | | [025] | 1.375 | 1.625 | 1.750 | 0.172 | 0.259 | 2047-62301-XX | 2040-62301-XX | 2050-62301-XX |
| 24 | | √ | | | [025] | 1.375 | 1.625 | 1.750 | 0.172 | | 2047-62303-XX | 2040-62303-XX | 2050-62303-XX |
| | | | | | [026] | 1.375 | 1.563 | 1.703 | 0.152 | | 2047-62402-XX | 2040-62402-XX | 2050-62402-XX |
| | | | | | [027] | 1.375 | 1.500 | 1.750 | 0.203 | | 2047-62403-XX | 2040-62403-XX | 2050-62403-XX |
| 25 | √ | | | √ | [028] | 1.500 | 1.750 | 1.875 | 0.172 | | 2047-62401-XX | 2040-62401-XX | 2050-62401-XX |
| | | | | | [028] | 1.500 | 1.750 | 1.875 | 0.172 | 0.259 | 2047-62502-XX | 2040-62502-XX | 2050-62502-XX |
| 28 | | | | | [029] | 1.562 | 1.750 | 2.000 | 0.203 | | 2047-62503-XX | 2040-62503-XX | 2050-62503-XX |
| 29 | | | | | [029] | 1.568 | 2.000 | 2.171 | 0.172 | 0.195 | 2047-62801-XX | 2040-62801-XX | 2050-62801-XX |
| 32 | | | | | [030] | 1.750 | 2.000 | 2.250 | 0.219 | | 2047-62901-XX | 2040-62901-XX | 2050-62901-XX |
| 33 | | | | | [030] | 1.734 | 2.187 | 2.356 | 0.203 | 0.234 | 2047-63201-XX | 2040-63201-XX | 2050-63201-XX |
| 36 | | | | | [031] | 1.938 | 2.250 | 2.500 | 0.219 | | 2047-63301-XX | 2040-63301-XX | 2050-63301-XX |
| 40 | | | | | [032] | 2.188 | 2.500 | 2.750 | 0.219 | | 2047-63601-XX | 2040-63601-XX | 2050-63601-XX |
| 44 | | | | | [033] | 2.375 | 2.781 | 3.000 | 0.219 | | 2047-64001-XX | 2040-64001-XX | 2050-64001-XX |
| 48 | | | | | [034] | 2.625 | 3.031 | 3.250 | 0.219 | | 2047-64401-XX | 2040-64401-XX | 2050-64401-XX |
| | | | | | [034] | 2.625 | 3.031 | 3.250 | 0.219 | | 2047-64801-XX | 2040-64801-XX | 2050-64801-XX |

Replace-X with:
 -A Ag/Cu sil
 -B Ag/Al sil
 -D Ag/Al fluoro
 -E Ag sil
 -F Ag fluoro
 -L Ag/Ni sil
 -more available

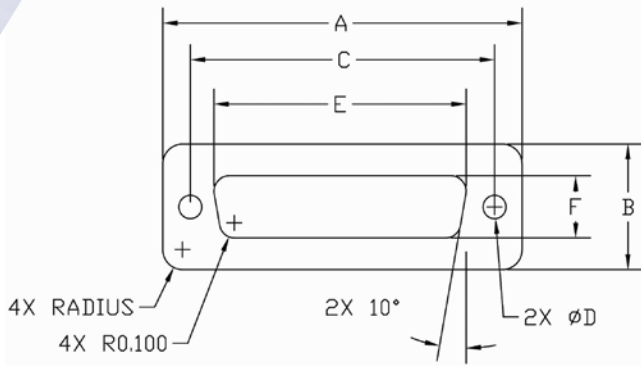
Custom sizes can be made to your specifications.

Replace -XX with:
 -03 sil solid w/monel
 -04 sil sponge w/monel
 -07 sil solid w/alum
 -08 sil sponge w/alum

Replace -XX with:
 -05 neo solid w/alum
 -07 sil solid w/alum

Replace -XX with:
 -62 Ag/Cu type A
 -63 Ag/Al type B
 -64 Ag/Al fluoro type D
 -65 Ag/Ni type L
 -66 Ag type E
 -68 Ag/Cu type K
 -more material available

D-Subminiature Gaskets for Connectors — Figure 2



D-Subminiature Gaskets for Connectors — Table 2

| Shell Size | Dimensions | | | | | | Part Numbers | | |
|--|------------|-------|-------|-------|-------|-------|---|---|---|
| | | | | | | | MULTICON (Oriented wire in silicone) P/N: | RADTHIN (Elastomer impregnated wire) P/N: | CONDUCTIVE ELASTOMER P/N: |
| | A | B | C | D | E | F | | | |
| 9 PIN | 1.213 | 0.594 | 0.984 | 0.120 | 0.697 | 0.360 | 2047-19334-XX | 2040-19334-XX | 2050-19334-XX |
| 15 PIN | 1.556 | 0.600 | 1.312 | 0.130 | 1.080 | 0.370 | 2047-19335-XX | 2040-19335-XX | 2050-19335-XX |
| 25 PIN | 2.087 | 0.594 | 1.852 | 0.120 | 1.583 | 0.378 | 2047-19336-XX | 2040-19336-XX | 2050-19336-XX |
| 37 PIN | 2.729 | 0.594 | 2.500 | 0.120 | 2.231 | 0.378 | 2047-19337-XX | 2040-19337-XX | 2050-19337-XX |
| 50 PIN | 2.635 | 0.605 | 2.406 | 0.120 | 2.109 | 0.466 | 2047-19338-XX | 2040-19338-XX | 2050-19338-XX |
| Custom sizes can be made to your specifications. | | | | | | | Replace -XX with: -03 sil solid w/monel -04 sil sponge w/monel -07 sil solid w/alum -08 sil sponge w/alum | Replace -XX with: -05 neo solid w/alum -07 sil solid w/alum | Replace -XX with: -62 Ag/Cu type A -63 Ag/Al type B -64 Ag/Al fluoro type D -65 Ag/Ni type L -66 Ag type E -68 Ag/Cu type K -more material available |

Materials Selection

Connector gaskets can be supplied in a variety of materials both non-conductive and conductive. A wide variety of materials are available to meet customer temperature ranges, conductivity, durometer and thickness of material to fill the void in the application

Connector Gasket Material Selection — Table 3

| Material Designation | Shield Material | Elastomer Material | Mil-DTL-83528 Type |
|--|-----------------|--------------------|--------------------|
| -03 Multicon | Monel Inbedded | Silicone | -- |
| -04 Multicon | Monel Inbedded | Silicone Sponge | -- |
| -05 Radthin | Aluminum | Neoprene | -- |
| -07 Radthin or Multicon | Aluminum | Silicone | -- |
| -08 Multicon | Aluminum | Silicone Sponge | -- |
| -52 Ni/G Conductive Elastomer | Nickel/Graphite | Silicone | -- |
| -61 Ag/Glass Conductive Elastomer | Silver/Glass | Silicone | M |
| -62 Ag/Cu Conductive Elastomer (65 duro) | Silver/Copper | Silicone | A |
| -63 Ag/Al Conductive Elastomer | Silver/Aluminum | Silicone | B |
| -64 Ag/Al Conductive Elastomer | Silver/Aluminum | Fluorosilicone | D |
| -65 Ag/Ni Conductive Elastomer | Silver/Nickel | Silicone | L |
| -66 Ag Conductive Elastomer | Silver | Silicone | E |
| -68 Ag/Cu Conductive Elastomer (85 duro) | Silver/Copper | Silicone | K |
| -69 Ag Conductive Elastomer | Silver | Fluorosilicone | F |
| -74 Ag/Cu Conductive Elastomer | Silver/Copper | Fluorosilicone | C |
| -76 Ag Conductive Elastomer | Silver | Silicone | I |
| -78 Ag Conductive Elastomer (80 duro) | Silver | Silicone | H |
| -79 Ag/Cu Conductive Elastomer (80 duro) | Silver/Copper | Silicone | G |