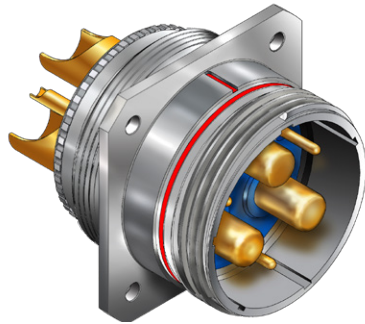




## Hermetic and Filter Receptacles 240-970 Filter Receptacle



240-970 receptacle has planar array ceramic capacitors for Type C filtering. Accessory thread for attaching strain relief clamps, backshells or adapters. Solder cup contacts are non-removable. Panel mount styles include jam nut and square flange. Coupling threads are triple-start ACME quick-disconnect. PowerTrip connectors feature low resistance LouverBand contacts and are designed to withstand extreme environments.

- Quick-disconnect self-locking aerospace-grade power connector
- 1250 VAC (DWV)
- -55° to +125°C
- Filter Type C
- High shock, high vibration

HERMETIC AND FILTER RECEPTACLES

| INSERT ARRANGEMENTS |                           |     |    |    |      |      |
|---------------------|---------------------------|-----|----|----|------|------|
| Insert Arr.         | Contact Size and Quantity |     |    |    |      |      |
|                     | #16                       | #12 | #8 | #4 | #1/0 | #2/0 |
| 18-2                |                           |     | 2  |    |      |      |
| 18-4                |                           | 2   | 2  |    |      |      |
| 20-3                |                           |     | 3  |    |      |      |
| 20-4                |                           |     | 4  |    |      |      |
| 20-5                |                           | 2   | 3  |    |      |      |
| 20-7                | 4                         |     | 3  |    |      |      |
| 24-1                |                           |     |    |    | 1    |      |
| 24-2                |                           |     |    | 2  |      |      |
| 24-3                |                           |     |    | 3  |      |      |
| 24-5                |                           |     | 5  |    |      |      |
| 24-6                |                           | 4   |    | 2  |      |      |
| 24-A1               |                           |     |    |    |      | 1    |
| 24-A6               |                           | 3   |    | 3  |      |      |
| 28-12               | 6                         |     | 6  |    |      |      |
| 28-15               | 15                        |     |    |    |      |      |
| 28-4                |                           |     |    | 4  |      |      |
| 28-8                |                           | 1   | 7  |    |      |      |
| 28-9                | 5                         |     |    | 4  |      |      |
| 32-12               | 2                         |     | 10 |    |      |      |
| 32-2                |                           |     |    |    | 2    |      |
| 32-20               | 1                         | 19  |    |    |      |      |
| 32-3                |                           |     |    |    | 3    |      |
| 32-4                |                           |     |    | 2  | 2    |      |
| 32-5                |                           |     |    | 5  |      |      |
| 32-6                |                           | 3   |    |    | 3    |      |
| 32-7                |                           |     |    | 7  |      |      |
| 32-A22              |                           | 22  |    |    |      |      |
| 36-16               | 3                         |     | 13 |    |      |      |
| 36-2                |                           |     |    |    |      | 2    |
| 36-4                |                           |     |    |    | 4    |      |
| 36-9                | 14                        | 14  | 2  | 1  |      |      |
| 36-A8               |                           |     |    | 8  |      |      |
| 36-B8               | 4                         |     |    |    | 4    |      |
| 40-10               | 16                        |     | 9  | 4  |      |      |
| 40-21               |                           |     | 21 |    |      |      |
| 40-5                |                           |     |    |    | 5    |      |

| HOW TO ORDER                  |                                                                                                                                                                                                               |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Part Number →          | 240-970 J ME 32-5 PS C X N -1                                                                                                                                                                                 |
| <b>Basic Number</b>           | 240-970 = Filter Receptacle                                                                                                                                                                                   |
| <b>Shell Style</b>            | W = Square Flange Mount<br>J = Jam Nut Mount                                                                                                                                                                  |
| <b>Material / Finish</b>      | ME = Aluminum / Electroless Nickel<br>MT = Aluminum / Nickel PTFE<br>NF = Aluminum / Olive Drab Cadmium<br>TZ = Aluminum / Tin-Zinc<br>ZR = Aluminum / Black Zinc-Nickel<br>Z1 = Stainless Steel / Passivated |
| <b>Shell Size-Insert Arr.</b> | See "Insert Arrangements" Table                                                                                                                                                                               |
| <b>Contact Style</b>          | PS = Pin, Solder Cup<br>SS = Socket, Solder Cup                                                                                                                                                               |
| <b>Filter Type</b>            | C = C Filter                                                                                                                                                                                                  |
| <b>Filter Capacitance</b>     | X = 80,000 – 120,000 pF<br>Y = 40,000 – 6,000 pF<br>Z = 30,000 – 45,500 pF                                                                                                                                    |
| <b>Mounting Flange Style</b>  | N = Standard Mounting (240-970W square flange has thru-holes)<br>T = Clinch Nuts (240-970W only)                                                                                                              |
| <b>Keyway Position</b>        | -1, -2, -3, -4, -5, or -6                                                                                                                                                                                     |

| RATINGS                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Voltage (DWV):</b> 1250 Volts AC                                                                                                                                               |
| <b>Current:</b> Size 16 contact 13 amps<br>Size 12 contact 23 amps<br>Size 8 contact 60 amps<br>Size 4 contact 100 amps<br>Size 1/0 contact 175 amps<br>Size 2/0 contact 205 amps |
| <b>Operating temperature:</b> -55 to +125 °C                                                                                                                                      |
| <b>Durability:</b> 500 mating cycles                                                                                                                                              |
| <b>EMI shielding effectiveness:</b> 65 dB min. 100 MHz to 10 GHz                                                                                                                  |
| <b>Shock:</b> 50 g                                                                                                                                                                |
| <b>Vibration:</b> per MIL-DTL-38999 Series III                                                                                                                                    |
| <b>MIL-S-901 high impact shock:</b> Grade A                                                                                                                                       |
| <b>Blowing sand and dust:</b> MIL-STD-810, method 510.5                                                                                                                           |
| <b>Altitude immersion:</b> 75,000 feet                                                                                                                                            |
| <b>Ingress protection:</b> IP67                                                                                                                                                   |
| <b>Pressure rating:</b> 200 PSI                                                                                                                                                   |

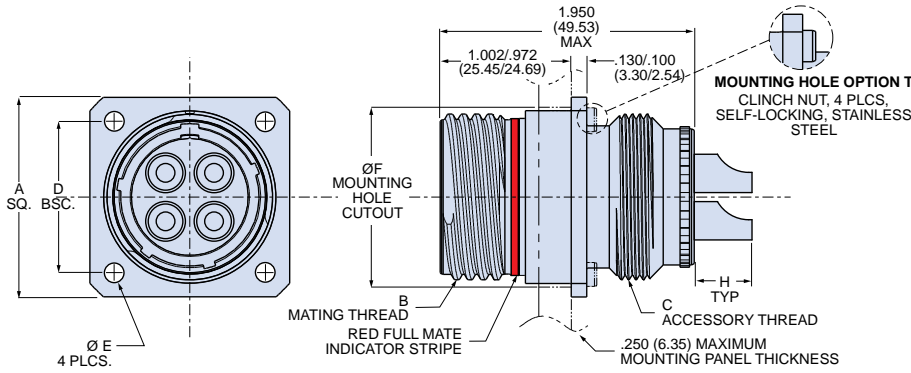
| CONSTRUCTION                                                         |
|----------------------------------------------------------------------|
| <b>Contacts:</b> Copper alloy, gold plated                           |
| <b>Shell, jam nut:</b> Aluminum or stainless steel, see How to Order |
| <b>Insulators:</b> Glass-filled thermoset epoxy                      |
| <b>Face seal, peripheral seal:</b> Fluorosilicone                    |

| INSERTION LOSS                     |             |            |            |
|------------------------------------|-------------|------------|------------|
| Insertion Loss<br>dB minimum, 25°C |             |            |            |
| Frequency                          | CX          | CY         | CZ         |
|                                    | 80K-120K pF | 40K-60K pF | 30K-45K pF |
| 1 MHz                              | 22          | 16         | 13         |
| 10 MHz                             | 41          | 36         | 33         |
| 100 MHz                            | 56          | 53         | 52         |
| 500 -1000 MHz                      | 60          | 57         | 57         |

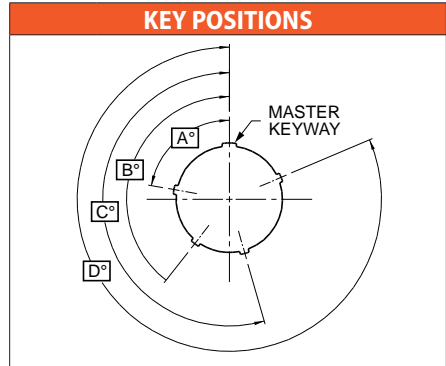
Hermetic and Filter Receptacles  
240-970 Filter Receptacle

HERMETIC AND FILTER RECEPTACLES

**240-970W SQUARE FLANGE**



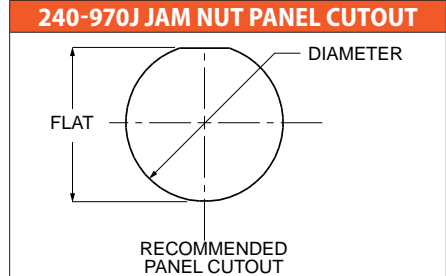
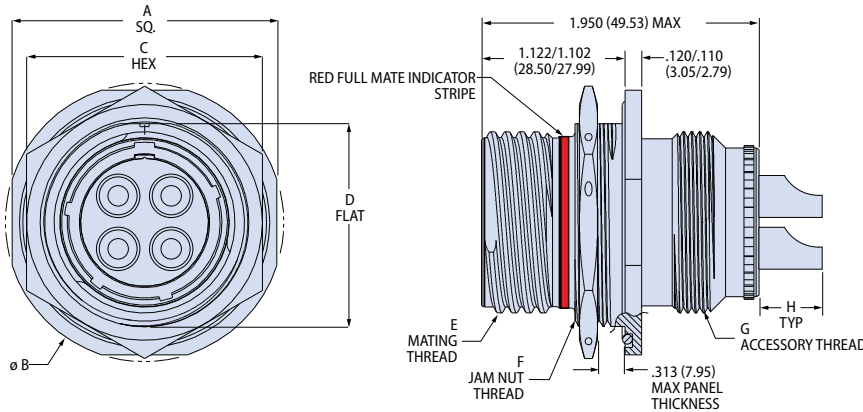
| SOLDER CUP DIMENSIONS |            |            |
|-----------------------|------------|------------|
| Contact Size          | H Typ      |            |
|                       | In. ± .025 | mm. ± 0.64 |
| 12, 16                | .500       | 12.70      |
| 8                     | .600       | 15.24      |
| 4, 1/0                | .800       | 20.32      |



| KEY POSITIONS |     |     |     |     |
|---------------|-----|-----|-----|-----|
| Position      | A°  | B°  | C°  | D°  |
| 1             | 80  | 142 | 196 | 293 |
| 2             | 135 | 170 | 200 | 310 |
| 3             | 49  | 169 | 200 | 244 |
| 4             | 66  | 140 | 200 | 257 |
| 5             | 62  | 145 | 180 | 280 |
| 6             | 79  | 153 | 197 | 272 |

| DIMENSIONS |       |       |                    |                   |       |       |      |                  |            |       |       |
|------------|-------|-------|--------------------|-------------------|-------|-------|------|------------------|------------|-------|-------|
| Shell Size | A Sq. |       | B                  | C                 | D Bsc |       | Ø E  | E Clinch Nut Thd | Ø F        |       |       |
|            | In.   | mm.   | Mating Thd         | Accessory Thd     | In.   | mm.   | In.  | mm.              | In.        | mm.   |       |
| 18         | 1.383 | 35.13 | 1.125-1P-.3L-TS-2A | 1.125-18 UNEF-2A  | 1.015 | 25.78 | .146 | 3.71             | 6-32 UNC-2 | 1.187 | 30.15 |
| 20         | 1.508 | 38.30 | 1.250-1P-.3L-TS-2A | 1.250-18 UNEF-2A  | 1.140 | 28.96 | .146 | 3.71             | 6-32 UNC-2 | 1.374 | 34.90 |
| 24         | 1.718 | 43.64 | 1.500-1P-.3L-TS-2A | 1.4375-18 UNEF-2A | 1.281 | 32.54 | .146 | 3.71             | 6-32 UNC-2 | 1.562 | 39.67 |
| 28         | 2.138 | 54.31 | 1.750-1P-.3L-TS-2A | 1.8125-16 UN-2A   | 1.568 | 39.83 | .170 | 4.32             | 8-32 UNC-2 | 1.874 | 47.60 |
| 32         | 2.328 | 59.13 | 2.000-1P-.3L-TS-2A | 2.0625-16 UNS-2A  | 1.734 | 44.04 | .170 | 4.32             | 8-32 UNC-2 | 2.062 | 52.37 |
| 36         | 2.578 | 65.48 | 2.250-1P-.3L-TS-2A | 2.250-16 UN-2A    | 1.984 | 50.39 | .170 | 4.32             | 8-32 UNC-2 | 2.302 | 58.47 |
| 40         | 2.828 | 71.83 | 2.500-1P-.3L-TS-2A | 2.500-16 UN-2A    | 2.234 | 56.74 | .170 | 4.32             | 8-32 UNC-2 | 2.562 | 65.07 |

**240-970J JAM NUT**



| Shell Size | Diameter |      | Flat  |      |
|------------|----------|------|-------|------|
|            | In.      | mm.  | In.   | mm.  |
| 18         | 1.254    | 31.9 | 1.217 | 30.9 |
| 20         | 1.441    | 36.6 | 1.404 | 35.7 |
| 24         | 1.629    | 41.4 | 1.592 | 40.4 |
| 28         | 1.941    | 49.3 | 1.904 | 48.4 |
| 32         | 2.129    | 54.1 | 2.092 | 53.1 |
| 36         | 2.379    | 60.4 | 2.328 | 59.1 |
| 40         | 2.629    | 66.8 | 2.553 | 64.8 |

| DIMENSIONS |       |       |       |       |       |       |        |       |                    |                   |                   |
|------------|-------|-------|-------|-------|-------|-------|--------|-------|--------------------|-------------------|-------------------|
| Shell Size | A Sq. |       | Ø B   |       | C     |       | D Flat |       | E                  | F                 | G                 |
|            | In.   | mm.   | In.   | mm.   | In.   | mm.   | In.    | mm.   | Mating Thd.        | Jam-Nut Thd.      | Accessory Thd.    |
| 18         | 1.639 | 41.63 | 1.733 | 44.02 | 1.438 | 36.53 | 1.212  | 31.06 | 1.125-1P-.3L-TS-2A | 1.250-18 UNEF-2A  | 1.125-18 UNEF-2A  |
| 20         | 1.827 | 46.41 | 1.921 | 48.79 | 1.625 | 41.28 | 1.399  | 35.81 | 1.250-1P-.3L-TS-2A | 1.4375-18 UNEF-2A | 1.250-18 UNEF-2A  |
| 24         | 2.014 | 51.16 | 2.108 | 53.54 | 2.000 | 50.80 | 1.587  | 43.76 | 1.500-1P-.3L-TS-2A | 1.625-18 UNEF-2A  | 1.4375-18 UNEF-2A |
| 28         | 2.327 | 59.11 | 2.425 | 61.60 | 2.188 | 55.58 | 1.899  | 48.51 | 1.750-1P-.3L-TS-2A | 1.9375-16 UN-2A   | 1.8125-16 UN-2A   |
| 32         | 2.513 | 63.83 | 2.607 | 66.24 | 2.375 | 60.33 | 2.084  | 52.93 | 2.000-1P-.3L-TS-2A | 2.125-16 UN-2A    | 2.0625-16 UNS-2A  |
| 36         | 2.763 | 70.18 | 2.857 | 72.57 | 2.625 | 66.68 | 2.323  | 59.00 | 2.250-1P-.3L-TS-2A | 2.375-16 UN-2A    | 2.250-16 UN-2A    |
| 40         | 3.013 | 76.53 | 3.107 | 78.92 | 2.875 | 73.03 | 2.548  | 64.72 | 2.500-1P-.3L-TS-2A | 2.625-16 UN-2A    | 2.500-16 UN-2A    |

| RECOMMENDED JAM NUT TORQUE |                  |
|----------------------------|------------------|
| Shell Size                 | Min-Max (in-lb.) |
| 18                         | 80-85            |
| 20                         | 100-110          |
| 24                         | 110-120          |
| 28                         | 145-155          |
| 32                         | 170-180          |
| 36                         | 190-200          |
| 40                         | 210-220          |