

2M805
Tri-Start

2M804
Push-Pull

2M803
Bayonet

2M801
Dual-Start



38999 III

38999 II

38999 I

SJT

Aquacon

2M

83723

26482

26500



The New Aerospace Standard

The New Circular Connector Standard. Smaller, lighter, higher contact density, and just as durable as D38999 Mil-spec connectors.

FEATURES:

- 4 Coupling Styles
- Integral Backshells
- PC Tail Termination Available
- 60% Weight Reduction from 38999
- 50% Size Reduction from 38999

2M Series Selection Table

2M801, 2M803, 2M804 and 2M805



| SERIES | 2M805 | 2M804 | 2M803 | 2M801 |
|------------------------|---|--|---|--|
| Pages | Pages 56-60 | Pages 61-64 | Pages 65-67 | Page 68-72 |
| TYPE | Tri-Start ACME Thread | Push-Pull | Bayonet | Dual-Start ACME Thread |
| DESCRIPTION | "Anti-Decoupling" ratchet mechanism and ground spring for military airframes and avionics boxes. Fast mating. | Breakaway connector for headsets and tactical equipment. Gold-plated spring for long mating life and superior EMI shielding. | Quick-mating, light duty, general purpose. Not rated for immersion, 50 milliohms shell-to-shell resistance. | More rugged keys and threads. Faster mating. |
| CONTACTS | 1 to 130 | 1 to 85 | 1 to 55 | 1 to 130 |
| COUPLING | Tri-Start Thread | Push, Pull Quick-Disconnect | 1/4 turn lock Bayonet | Threaded Coupling with 1 1/2 Turns to Full Mate |
| WATER IMMERSION, MATED | MIL-STD-810 Method 512 1 Meter for 1 Hour | MIL-STD-810 Method 512 1 Meter for 1 Hour | Splash proof | MIL-STD-810 Method 512 1 Meter for 1 Hour |
| EMI SHIELDING | Excellent | Excellent | Fair | Very Good |
| VIBRATION AND SHOCK | 43.9 g's Random Vibration, Sine Vibration 60 g; 300 g's Shock | 37 g's Random Vibration; 300 g's Shock | 37 g's Random Vibration; 300 g's Shock | 43.9 g's Random Vibration, Sine Vibration 60 g; 300 g's Shock |
| MATING CYCLES | 500 Cycles | 2000 Cycles | 1000 Cycles Aluminum 2000 Cycles Stainless Steel | 2000 Cycles (-16 Plugs) 500 Cycles (-26 Plugs) |
| ELECTRICAL PERFORMANCE | #12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC | #12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC | #12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC | #12: 23 AMP, 1800 VAC #16: 13 AMP, 1800 VAC #20: 7.5 AMP, 750 VAC #23: 5 AMP, 500 VAC |

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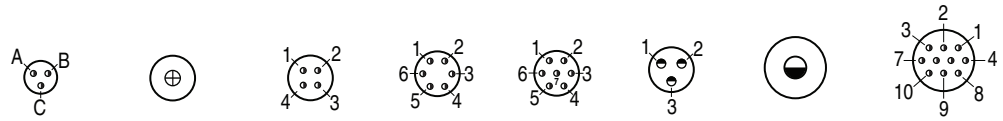
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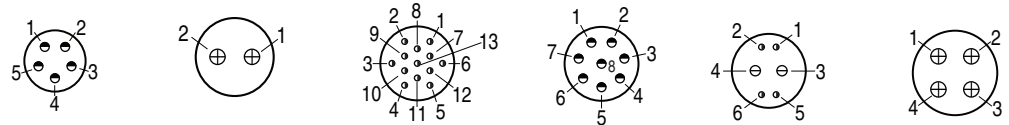
2M Series Technical Information

Insert Arrangements

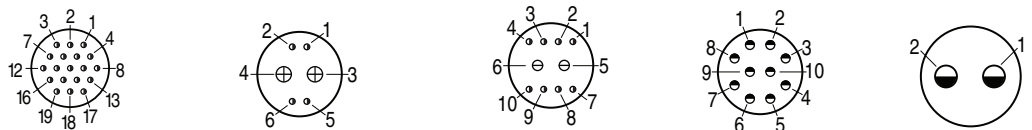
Front face of pin inserts illustrated (Socket Reversed)



| 2M801 2M803 2M804 | 5-3 | 6-1* | 6-4 | 6-6 | 6-7 | 6-23 | 7-1* | 7-10 |
|-----------------------|-----|------|-----|-----|-----|-------|------|------|
| 2M805 | NA | 8-1* | 8-4 | 8-6 | 8-7 | 8-23 | 9-1* | 9-10 |
| No. of Contacts | 3 | 1 | 4 | 6 | 7 | 3 | 1 | 10 |
| Contact Size | #23 | #16 | #23 | #23 | #23 | #20HD | #12 | #23 |
| DWV Voltage (VAC) | 500 | 1800 | 500 | 500 | 500 | 750 | 1800 | 500 |
| Current Rating (Amps) | 5 | 13 | 5 | 5 | 5 | 7.5 | 23 | 5 |



| 2M801 2M803 2M804 | 7-25 | 8-2 | 8-13 | 8-28 | 8-200* | | 9-4 |
|-----------------------|-------|------|-------|-------|---------|-----|------|
| 2M805 | 9-25 | 10-2 | 10-13 | 10-28 | 10-200* | | 11-4 |
| No. of Contacts | 5 | 2 | 13 | 8 | 2 | 4 | 4 |
| Contact Size | #20HD | #16 | #23 | #20HD | #20 | #23 | #16 |
| DWV Voltage (VAC) | 750 | 1800 | 500 | 750 | 1000 | 500 | 1800 |
| Current Rating (Amps) | 7.5 | 13 | 5 | 7.5 | 7 | 5 | 13 |



| 2M801 2M803 2M804 | 9-19 | 9-200 | | 9-201 | | 9-210 | | 10-2 |
|-----------------------|-------|--------|-----|--------|-----|--------|--|------|
| 2M805 | 11-19 | 11-200 | | 11-201 | | 11-210 | | 12-2 |
| No. of Contacts | 19 | 2 | 4 | 2 | 8 | 10 | | 2 |
| Contact Size | #23 | #16 | #23 | #20 | #23 | #20HD | | #12 |
| DWV Voltage (VAC) | 500 | 1800 | 500 | 1000 | 500 | 750 | | 1800 |
| Current Rating (Amps) | 5 | 13 | 5 | 7.5 | 5 | 7.5 | | 23 |

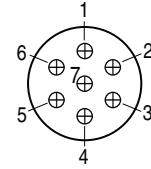
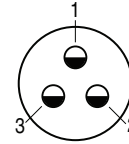
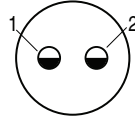
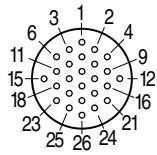


| 2M801 2M803 2M804 | 10-5 | 10-201 | | 10-202* | | 10-200* | |
|-----------------------|------|--------|-----|---------|-----|---------|-----|
| 2M805 | 12-5 | 12-201 | | 12-202* | | 12-200* | |
| No. of Contacts | 5 | 2 | 4 | 2 | 8 | 1 | 12 |
| Contact Size | #16 | #12 | #23 | #16 | #23 | #12 | #23 |
| DWV Voltage (VAC) | 1800 | 1800 | 500 | 1800 | 500 | 1800 | 500 |
| Current Rating (Amps) | 13 | 23 | 5 | 13 | 5 | 23 | 5 |

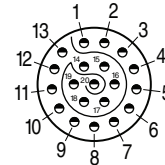
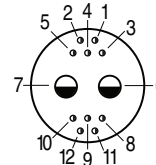
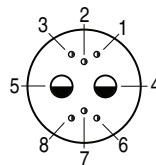
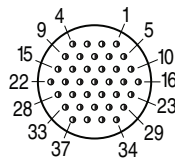
2M Series Technical Information

Insert Arrangements

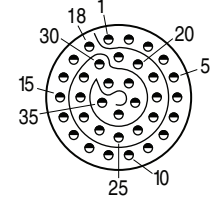
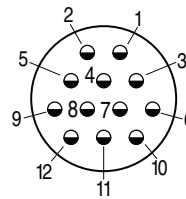
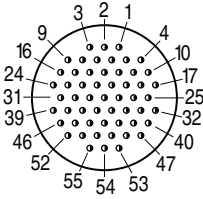
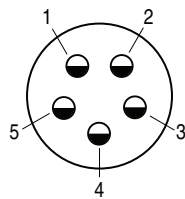
Front face of pin inserts illustrated (Socket Reversed)



| | | | | |
|-----------------------|--------------|-------------|--------------|-------------|
| 2M801 | 10-26 | 13-2 | 13-3* | 13-7 |
| 2M803 2M804 | 10-26 | 12-2 | 12-3* | 12-7 |
| 2M805 | 12-26 | 15-2 | 15-3* | 15-7 |
| No. of Contacts | 26 | 2 | 3 | 7 |
| Contact Size | #23 | #12 | #12 | #16 |
| DWV Voltage (VAC) | 500 | 1800 | 1800 | 1800 |
| Current Rating (Amps) | 5 | 23 | 23 | 13 |



| | | | | | | |
|-----------------------|--------------|----------------|-----|---------------|-----|---------------|
| 2M801 | 13-37 | 13-200* | | 13-201 | | 13-220 |
| 2M803 2M804 | 12-37 | 12-200 | | 12-201 | | 12-220 |
| 2M805 | 15-37 | 15-200* | | 15-201 | | 15-220 |
| No. of Contacts | 37 | 2 | 6 | 2 | 10 | 20 |
| Contact Size | #23 | #12 | #23 | #12 | #23 | #20HD |
| DWV Voltage (VAC) | 500 | 1800 | 500 | 1800 | 500 | 750 |
| Current Rating (Amps) | 5 | 23 | 5 | 23 | 5 | 7.5 |



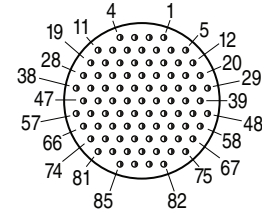
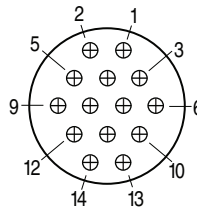
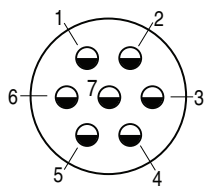
| | | | | |
|-----------------------|-------------|--------------|--------------|---------------|
| 2M801 | 16-5 | 16-55 | 16-12 | 16-235 |
| 2M803 2M804 | 14-5 | 14-55 | 14-12 | 14-235 |
| 2M805 | 18-5 | 18-55 | 18-12 | 18-235 |
| No. of Contacts | 5 | 55 | 12 | 35 |
| Contact Size | #12 | #23 | #16 | #20HD |
| DWV Voltage (VAC) | 1800 | 500 | 1800 | 750 |
| Current Rating (Amps) | 23 | 5 | 13 | 7.5 |

*Not tooled for every insert pattern

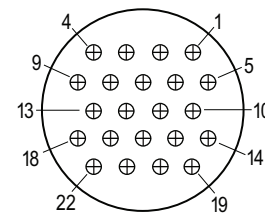
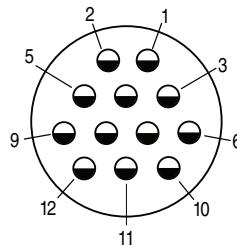
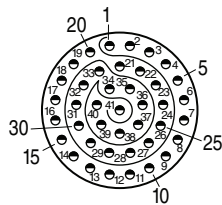
2M Series Technical Reference

Insert Arrangements

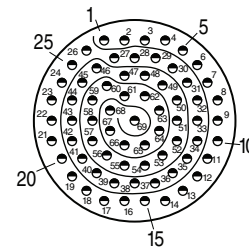
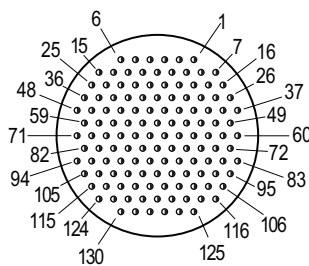
Front face of pin inserts illustrated (Socket Reversed)



| | | | |
|-----------------------|-------------|---------------|--------------|
| 2M801 | 17-7 | 17-14* | 17-85 |
| 2M803 2M804 | 15-7 | 15-14 | 15-85 |
| 2M805 | 19-7 | 19-14* | 19-85 |
| No. of Contacts | 7 | 14 | 85 |
| Contact Size | #12 | #16 | #23 |
| DWV Voltage (VAC) | 1800 | 1800 | 500 |
| Current Rating (Amps) | 23 | 13 | 5 |



| | | | |
|-----------------------|----------------|--------------|---------------|
| 2M801 | 17-241* | 21-12 | 21-22* |
| 2M805 | 19-241* | 23-12 | 23-22* |
| No. of Contacts | 41 | 12 | 22 |
| Contact Size | #20HD | #12 | #16 |
| DWV Voltage (VAC) | 750 | 1800 | 1800 |
| Current Rating (Amps) | 7.5 | 23 | 13 |



| | | |
|-----------------------|---------------|---------------|
| 2M801 | 21-130 | 21-269 |
| 2M805 | 23-130 | 23-269 |
| No. of Contacts | 130 | 69 |
| Contact Size | #23 | #20HD |
| DWV Voltage (VAC) | 500 | 750 |
| Current Rating (Amps) | 5 | 7.5 |

*Not tooled for every insert pattern



2M805

Tri-Start

FEATURES:

- Low profile shells for minimum box protrusion
- Shell Standoffs for PC Board washout
- Non-removable PC and/or Solder cup contacts

2M805 Series of Hermetic Receptacles provide superior sealing of 1×10^{-8} cc/second helium leak rate and are 100% tested prior to shipping. This superior sealing is accomplished through the use of glass insulator fused to stainless steel shells and iron alloy contacts.

2M805 Tri-Start Hermetic Receptacle

Ordering Guide for 2M805-006

| 1. | 2. | 3. | 4. | 5. | 6. |
|------------------|------------|---------------|-------------------------|----------|----------|
| Series | Shell Size | Service Class | Shell Size-Insert Aggmt | Contacts | Keying |
| 2M805-006 | -07 | Z1 | 12-26 | C | A |

Example Part Number

| 1. SERIES | |
|------------------|---------------------|
| Part # | Description |
| 2M805-006 | Hermetic Receptacle |

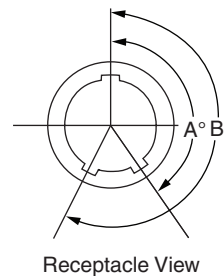
| 2. SHELL SIZE | |
|---------------|--|
| Part # | Description |
| -02 | Square Flange |
| -03 | Weld Mount (only available in Z1 Finish) |
| -07 | Jam Nut for Rear Panel Mounting Receptacle |

| 3. SERVICE CLASS | | | |
|------------------|-----------|---------------------|------|
| Material | Part # | Description | RoHS |
| Stainless Steel | Z1 | Passivated | |
| | ZL | Electrolytic Nickel | |

| 4. SHELL SIZE-INSERT ARRANGEMENT |
|----------------------------------|
| See Table on pages 53-55 |

| 5. CONTACTS | |
|-------------|---|
| Part # | Description |
| P | Pin- Solder Cup |
| C | Pin-PC Tail |
| H | Pin, Solder Cup- Without Interfacial Seal |
| Y | Pin, PC Tail- Without Interfacial Seal |

| 6. KEYING | | |
|-----------|------|------|
| Part # | A° | B° |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |



Note: Please contact the factory directly for a listing of tooled interfacial seals for the hermetically sealed connectors.

Please note, Amphenol standard 2M hermetic connector are provided less the interfacial seal. Please contact the factory for availability on the interfacial seal.

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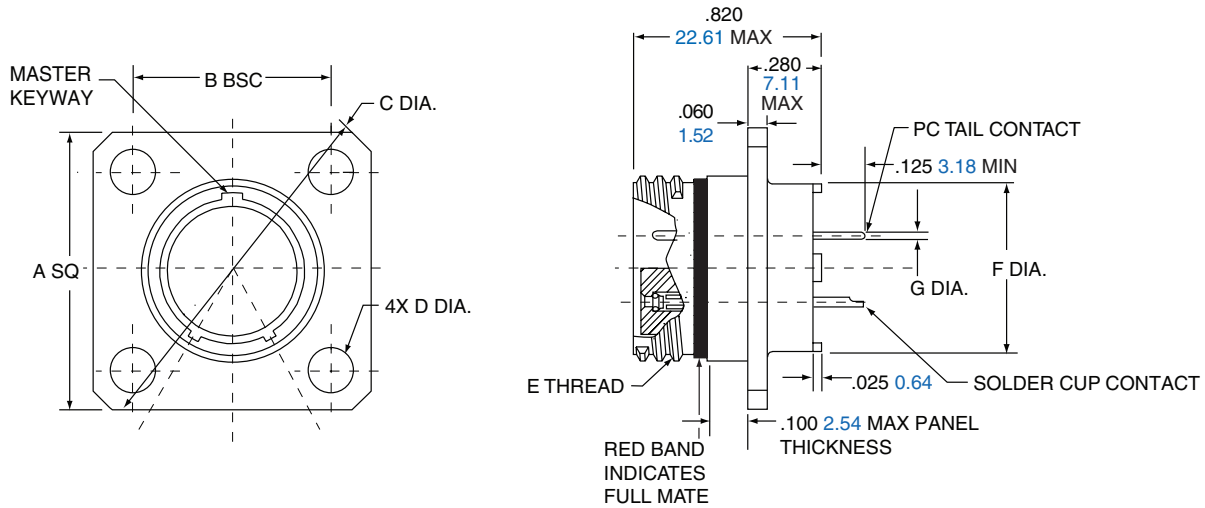
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2M805 Tri-Start Flange Mount Hermetic

2M805-006-02



Inches-Millimeters

| Shell Size | A Sq. | | B BSC. | | C Dia. | | D Dia. | | E Threads | F Dia. | | G PC Tail Dia. |
|------------|-------|-------|--------|-------|--------|-------|-----------|----------|----------------------|--------|-------|---|
| | in. | mm. | in. | mm. | in. | mm. | in. ±.003 | mm. ±.08 | | in. | mm. | |
| 8 | .853 | 21.67 | .660 | 16.76 | 1.153 | 29.29 | .091 | 2.31 | .5000-.1P-.3L-TS-2A | .330 | 8.38 | #23 .018/.022 0.46/0.56 |
| 9 | .916 | 23.27 | .723 | 18.36 | 1.233 | 31.32 | .091 | 2.31 | .5625-.1P-.3L-TS-2A | .432 | 10.97 | #20/20HD .024/.028 0.64/0.69 |
| 10 | .978 | 24.84 | .785 | 19.94 | 1.333 | 33.86 | .091 | 2.31 | .6250-.1P-.3L-TS-2A | .493 | 12.52 | #16 .060/.064 1.521/1.63 |
| 11 | 1.042 | 26.47 | .848 | 21.54 | 1.413 | 35.89 | .091 | 2.31 | .6875-.1P-.3L-TS-2A | .551 | 14.00 | #12 .092/.096 2.34/2.44 |
| 12 | 1.102 | 27.99 | .909 | 23.09 | 1.503 | 38.18 | .091 | 2.31 | .7500-.1P-.3L-TS-2A | .622 | 15.80 | |
| 15 | 1.291 | 32.79 | 1.058 | 26.87 | 1.753 | 44.53 | .125 | 3.18 | .9375-.1P-.3L-TS-2A | .703 | 17.86 | |
| 18 | 1.478 | 37.54 | 1.255 | 31.88 | 2.003 | 50.88 | .125 | 3.18 | 1.1250-.1P-.3L-TS-2A | .863 | 21.92 | |
| 19 | 1.540 | 39.12 | 1.327 | 33.71 | 2.097 | 53.26 | .125 | 3.18 | 1.1875-.1P-.3L-TS-2A | .912 | 23.16 | |
| 23 | 1.790 | 45.47 | 1.570 | 39.88 | 2.443 | 62.05 | .125 | 3.18 | 1.4375-.1P-.3L-TS-2A | 1.163 | 29.54 | |

38999 III

38999 II

38999 I

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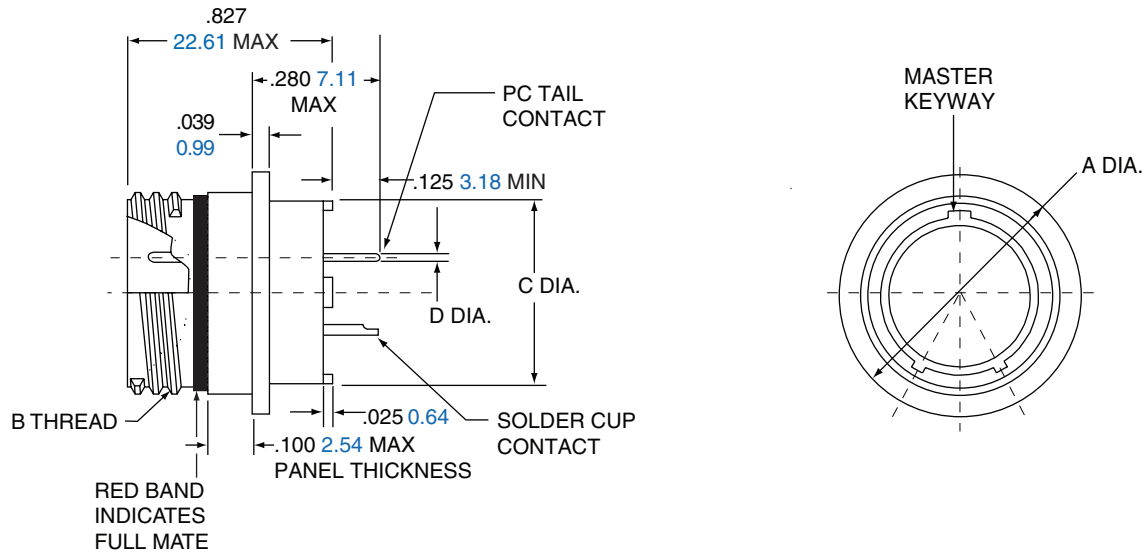
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2M805 Tri-Start Solder Mount Hermetic

2M805-006-03



Inches-Millimeters

| Shell Size | A Dia. | | B Threads | C Dia. | | D PC Tail Dia. |
|------------|--------|-------|----------------------|--------|-------|---|
| | in. | mm. | | in. | mm. | |
| 8 | .625 | 15.88 | .5000-.1P-.3L-TS-2A | .330 | 8.38 | #23 .018/.022 0.46/0.56 |
| 9 | .688 | 17.48 | .5625-.1P-.3L-TS-2A | .432 | 10.97 | |
| 10 | .750 | 19.75 | .6250-.1P-.3L-TS-2A | .493 | 12.52 | #20/20HD .025/.027 0.64/0.69 |
| 11 | .812 | 20.62 | .6875-.1P-.3L-TS-2A | .551 | 14.00 | |
| 12 | .875 | 22.23 | .7500-.1P-.3L-TS-2A | .620 | 15.78 | #16 .060/.064 1.521/1.63 |
| 15 | 1.062 | 26.97 | .9375-.1P-.3L-TS-2A | .703 | 17.86 | |
| 18 | 1.250 | 31.75 | 1.1250-.1P-.3L-TS-2A | .863 | 21.92 | |
| 19 | 1.312 | 33.32 | 1.1875-.1P-.3L-TS-2A | .912 | 23.16 | #12 .092/.096 2.34/2.44 |
| 23 | 1.563 | 39.70 | 1.4375-.1P-.3L-TS-2A | 1.162 | 29.51 | |

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2M805 Tri-Start Jam Nut Hermetic

2M805-006-07

38999 III

38999 II

38999 I

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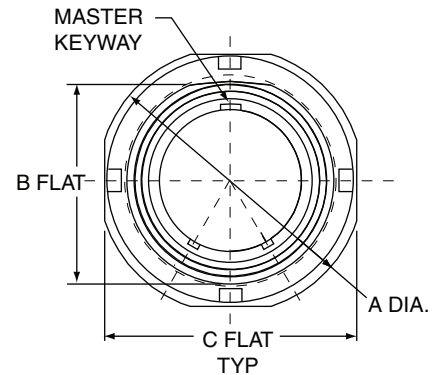
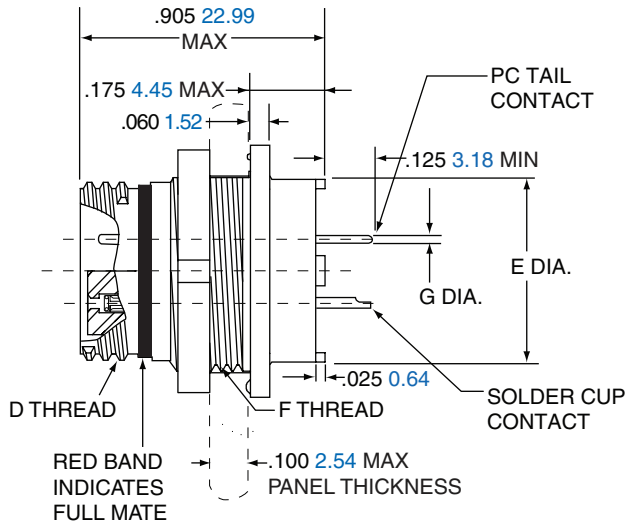
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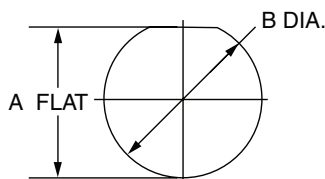
2M805-006-07



Inches-Millimeters

| Shell Size | A Dia. | | B Flat | | C Flat | | D Threads | E Dia. | | F Threads | G PC Tail Dia. |
|------------|--------|-------|--------|-------|--------|-------|----------------------|--------|-------|-----------------|--|
| | in. | mm. | in. | mm. | in. | mm. | | in. | mm. | | |
| 8 | .760 | 19.30 | .535 | 13.59 | .730 | 18.54 | .5000-.1P-.3L-TS-2A | .330 | 8.38 | .5625-28 UN-2A | #23 .018/.022 0.46/0.56 |
| 9 | .880 | 22.35 | .661 | 16.79 | .850 | 21.59 | .5625-.1P-.3L-TS-2A | .432 | 10.97 | .6875-28 UN-2A | #20/20HD .024/.028 0.64/0.69 |
| 10 | .880 | 22.35 | .661 | 16.79 | .850 | 21.59 | .6250-.1P-.3L-TS-2A | .493 | 12.52 | .6875-28 UN-2A | |
| 11 | .955 | 24.26 | .721 | 18.31 | .925 | 23.50 | .6875-.1P-.3L-TS-2A | .551 | 14.00 | .7500-28 UN-2A | #16 .060/.064 1.521/1.63 |
| 12 | 1.060 | 26.92 | .784 | 19.91 | 1.035 | 26.29 | .7500-.1P-.3L-TS-2A | .620 | 15.78 | .8125-28 UN-2A | |
| 15 | 1.203 | 30.56 | .970 | 24.64 | 1.173 | 29.79 | .9375-.1P-.3L-TS-2A | .703 | 17.86 | 1.0000-28 UN-2A | #12 .092/.096 2.34/2.44 |
| 18 | 1.389 | 35.28 | 1.147 | 29.13 | 1.359 | 34.52 | 1.1250-.1P-.3L-TS-2A | .863 | 21.92 | 1.1875-28 UN-2A | |
| 19 | 1.450 | 36.83 | 1.221 | 31.01 | 1.420 | 36.07 | 1.1875-.1P-.3L-TS-2A | .912 | 23.16 | 1.2500-28 UN-2A | |
| 23 | 1.705 | 43.31 | 1.470 | 37.34 | 1.675 | 42.55 | 1.4375-.1P-.3L-TS-2A | 1.162 | 29.51 | 1.5000-28 UN-2A | |

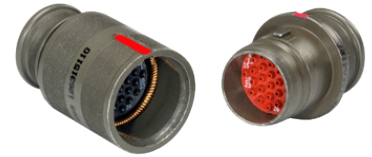
| PANEL CUTOUT FOR JAM NUT | | | | |
|--------------------------|--------------|---------------|--------------|---------------|
| Shell Size | A Flat | | B Dia | |
| | in. ±.002 | mm. ± 0.05 | in. ±.005 | mm. ± 0.13 |
| 8 | .543 | 13.79 | .572 | 14.53 |
| 9 | .669 | 16.99 | .698 | 17.73 |
| 10 | .669 | 16.99 | .698 | 17.73 |
| 11 | .729 | 18.51 | .760 | 19.30 |
| 12 | .792 | 20.17 | .822 | 20.88 |
| 15 | .978 | 24.84 | 1.010 | 25.65 |
| 18 | 1.155 | 29.34 | 1.198 | 30.43 |
| 19 | 1.231 | 31.27 | 1.260 | 32.00 |
| 23 | 1.480 | 37.59 | 1.510 | 38.35 |



2M804

Push-Pull

2M804 Series of Hermetic Receptacles provide superior sealing of 1×10^{-8} cc/second helium leak rate and are 100% tested prior to shipping. This superior sealing is accomplished through the use of glass insulator fused to stainless steel shells and iron alloy contacts.



FEATURES:

- Push-pull coupling
- Excellent EMI shielding
- Rated to 38999 immersions
- Quick-disconnect

2M804 Push-Pull Hermetic Receptacle

Ordering Guide for 2M804-006

38999 III

38999 II

38999 I

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26500

| 1. | 2. | 3. | 4. | 5. | 6. |
|------------------|------------|---------------|-------------------------|----------|----------|
| Series | Shell Size | Service Class | Shell Size-Insert Aggmt | Contacts | Keying |
| 2M804-006 | -07 | Z1 | 9-19 | P | A |

Example Part Number

| 1. SERIES | |
|------------------|---|
| Part # | Description |
| 2M804-006 | Hermetic Receptacle with Printed Circuit Board Contacts or Solder Cup Contacts. |

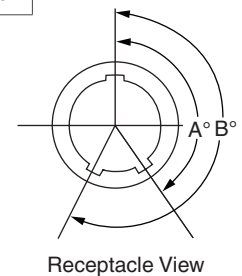
| 2. SHELL SIZE | |
|---------------|--|
| Part # | Description |
| -00 | Jam Nut for Front Panel Mounting |
| -07 | Jam Nut for Rear Panel Mounting Receptacle |

| 3. SERVICE CLASS | | | |
|------------------|-----------|---------------------|---|
| Material | Part # | Description | RoHS |
| Stainless Steel | Z1 | Passivated |  |
| | ZL | Electrolytic Nickel |  |

| 4. SHELL SIZE-INSERT ARRANGEMENT |
|----------------------------------|
| See Table pg 53-55 |

| 5. CONTACTS | |
|-------------|---|
| Part # | Description |
| P | Pin- Solder Cup |
| C | Pin-PC Tail |
| H | Pin, Solder Cup- Without Interfacial Seal |
| Y | Pin, PC Tail- Without Interfacial Seal |

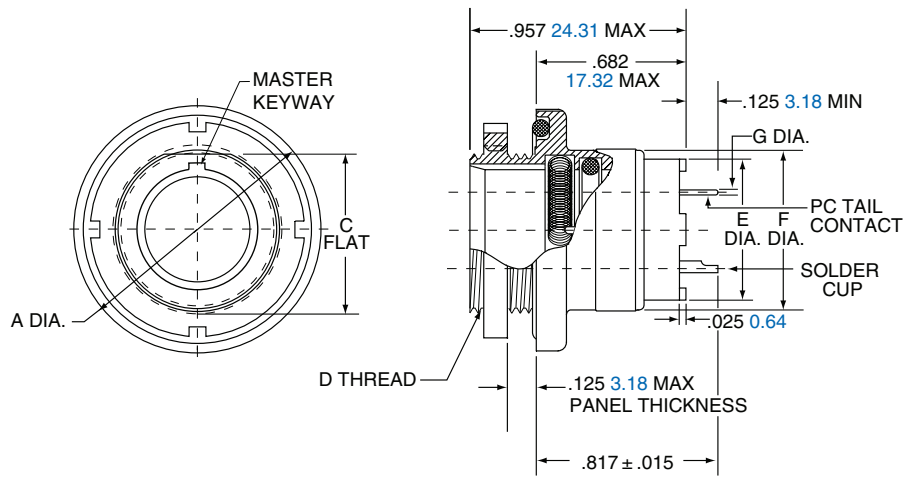
| 6. KEYING | | |
|-----------|------|------|
| Part # | A° | B° |
| A | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |



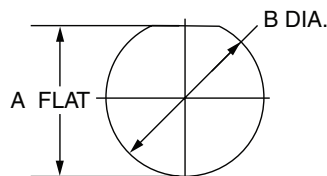
Note: Please contact the factory directly for a listing of tooled interfacial seals for the hermetically sealed connectors. Please note, Amphenol standard 2M hermetic connector are provided less the interfacial seal. Please contact the factory for availability on the interfacial seal.

2M804 Push-Pull Rear Panel Jam Nut Hermetic

2M804-006-07



| Shell Size | A Dia. | | C Flat | | D Thread UN-2A | E Dia. | | F Dia. | | G PC Tail Dia. |
|------------|--------|-------|--------|-------|----------------|--------|-------|--------|-------|---|
| | in. | mm. | in. | mm. | | in. | mm. | in. | mm. | |
| 5 | .773 | 19.63 | .414 | 10.52 | .4375-32 | .274 | 6.96 | .448 | 11.38 | #23 .018/.022 0.46/0.56 |
| 6 | .833 | 21.16 | .468 | 11.89 | .5000-32 | .329 | 8.36 | .513 | 13.03 | |
| 7 | .903 | 22.94 | .593 | 15.06 | .6250-28 | .431 | 10.95 | .573 | 14.55 | |
| 8 | .958 | 24.33 | .593 | 15.06 | .6250-28 | .493 | 12.52 | .596 | 15.14 | #20/20HD .025/.027 0.64/0.69 |
| 9 | .998 | 25.35 | .653 | 16.59 | .6875-28 | .551 | 14.00 | .691 | 17.55 | |
| 10 | 1.083 | 27.51 | .721 | 18.31 | .7500-28 | .619 | 15.72 | .728 | 18.49 | |
| 12 | 1.183 | 30.05 | .843 | 21.41 | .8750-28 | .703 | 17.86 | .883 | 22.43 | #16 .060/.064 1.52/1.63 |
| 14 | 1.323 | 33.60 | .968 | 24.59 | 1.0000-28 | .863 | 21.92 | 1.003 | 25.48 | |
| 15 | 1.373 | 34.87 | 1.036 | 26.31 | 1.0625-20 | .913 | 23.19 | 1.063 | 27.00 | #12 .092/.096 2.34/2.44 |



| JAM NUT PANEL CUTOUT | | | | |
|----------------------|-----------|------------|-----------|------------|
| Shell Size | A Flat | | B Dia. | |
| | in. ±.002 | mm. ± 0.05 | in. ±.005 | mm. ± 0.13 |
| 5 | .423 | 10.74 | .448 | 11.38 |
| 6 | .475 | 12.07 | .510 | 12.95 |
| 7 | .602 | 15.29 | .635 | 16.13 |
| 8 | .602 | 15.29 | .635 | 16.13 |
| 9 | .663 | 16.84 | .698 | 17.73 |
| 10 | .729 | 18.82 | .760 | 19.30 |
| 12 | .851 | 21.62 | .885 | 22.48 |
| 14 | .976 | 24.79 | 1.010 | 25.65 |

38999 III
38999 II
38999 I
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2M804 Front Panel Jam Nut Hermetic

2M804-006-00

38999 III

38999 II

38999 I

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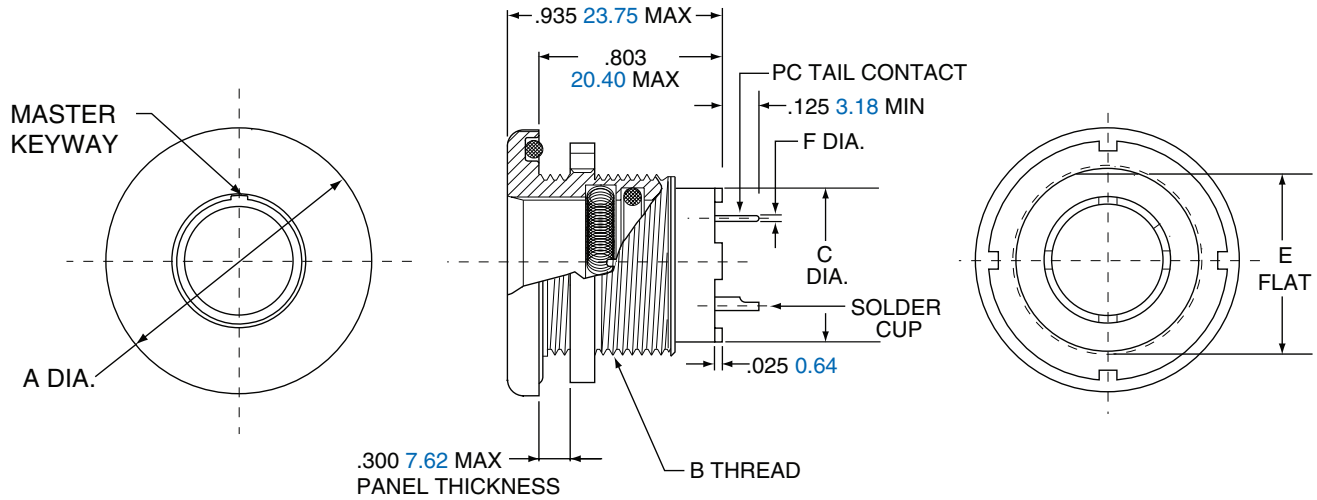
Aquacon

2M804

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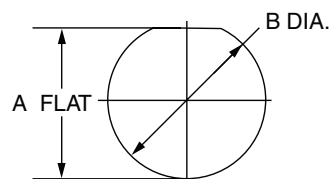
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| Shell Size | A Dia. | | B Thread UN-2A | C Dia. | | E Flat. | | F PC Tail Dia. |
|------------|--------|-------|----------------|--------|-------|---------|-------|---|
| | in. | mm. | | in. | mm. | in. | mm. | |
| 5 | .830 | 21.08 | .5000-32 | .274 | 6.96 | .470 | 11.94 | #23 .018/.022 0.46/0.56 |
| 6 | .884 | 22.45 | .5625-32 | .329 | 8.36 | .529 | 13.44 | #20/20HD .025/.027 0.64/0.69 |
| 7 | .994 | 25.25 | .6875-28 | .431 | 10.95 | .663 | 16.84 | #16 .060/.064 1.52/1.63 |
| 8 | .994 | 25.25 | .6875-28 | .493 | 12.52 | .663 | 16.84 | #12 .092/.096 2.34/2.44 |
| 9 | 1.073 | 27.25 | .7500-28 | .551 | 14.00 | .719 | 18.26 | |
| 10 | 1.138 | 28.91 | .8125-28 | .619 | 15.72 | .778 | 19.76 | |
| 12 | 1.338 | 33.99 | 1.0000-28 | .703 | 17.86 | .969 | 24.61 | |
| 14 | 1.388 | 35.26 | 1.0625-20 | .863 | 21.92 | 1.019 | 25.88 | |
| 15 | 1.453 | 36.91 | 1.1250-28 | .913 | 23.19 | 1.113 | 28.27 | |

| JAM NUT PANEL CUTOUT | | | | |
|----------------------|--------------|---------------|--------------|---------------|
| Shell Size | A Flat | | B Dia. | |
| | in. ±.002 | mm. ± 0.05 | in. ±.005 | mm. ± 0.13 |
| 5 | .477 | 12.12 | .510 | 12.95 |
| 6 | .537 | 13.64 | .635 | 16.13 |
| 7 | .670 | 17.02 | .635 | 16.13 |
| 8 | .670 | 17.02 | .698 | 17.73 |
| 9 | .727 | 18.47 | .760 | 19.30 |
| 10 | .787 | 19.81 | .885 | 22.48 |
| 12 | .977 | 24.82 | 1.010 | 25.65 |
| 14 | 1.027 | 26.09 | 1.073 | 27.25 |
| 15 | 1.120 | 28.45 | 1.135 | 28.83 |



2M803

Bayonet

2M803 Series of Hermetic Receptacles provide superior sealing of 1×10^{-8} cc/second helium leak rate and are 100% tested prior to shipping. This superior sealing is accomplished through the use of glass insulator fused to stainless steel shells and iron alloy contacts.

FEATURES:

- Low profile shells for minimum box protrusion
- Shell Standoffs for PC Board washout
- Non-removable PC and/or Solder cup contacts

2M803 Hermetic

Ordering Guide for 2M803-006 Receptacles

38999 III

38999 II

38999 I

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| 1. | 2. | 3. | 4. | 5. | 6. |
|------------------|------------|---------------|-------------------------|----------|----------|
| Series | Shell Size | Service Class | Shell Size-Insert Aggmt | Contacts | Keying |
| 2M803-006 | -07 | Z1 | 6-7 | P | A |

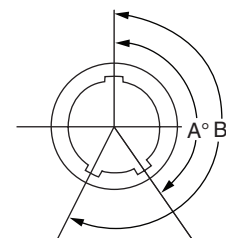
Example Part Number

| 1. SERIES | | 2. SHELL SIZE | | 3. SERVICE CLASS | | | |
|------------------|---|---------------|--------------|------------------|-----------|---------------------|---|
| Part # | Description | Part # | Description | Material | Part # | Description | |
| 2M803-006 | Hermetic Receptacles with PCB Contacts or Solder Cup Contacts | -02 | Flange Mount | Stainless Steel | Z1 | Passivated |  |
| | | -07 | Jam Nut | | ZL | Electrolytic Nickel |  |

| 4. SHELL SIZE-INSERT ARRANGEMENT | 5. CONTACTS | 6. KEYING | | | |
|----------------------------------|-------------|---|-------------------|------|------|
| See Table pg 53-55 | Part # | Description | Part # | A° | B° |
| | P | Pin- Solder Cup | N (NORMAL) | 150° | 210° |
| | C | Pin-PC Tail | X | 75° | 210° |
| | H | Pin, Solder Cup- Without Interfacial Seal | Y | 95° | 230° |
| | Y | Pin, PC Tail- Without Interfacial Seal | Z | 140° | 275° |

Note: Please contact the factory directly for a listing of tooled interfacial seals for the hermetically sealed connectors.

Please note, Amphenol standard 2M hermetic connector are provided less the interfacial seal. Please contact the factory for availability on the interfacial seal.



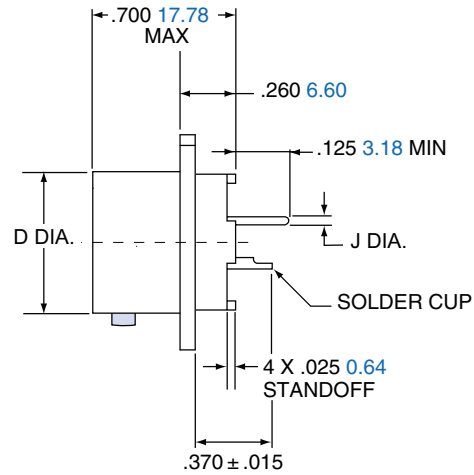
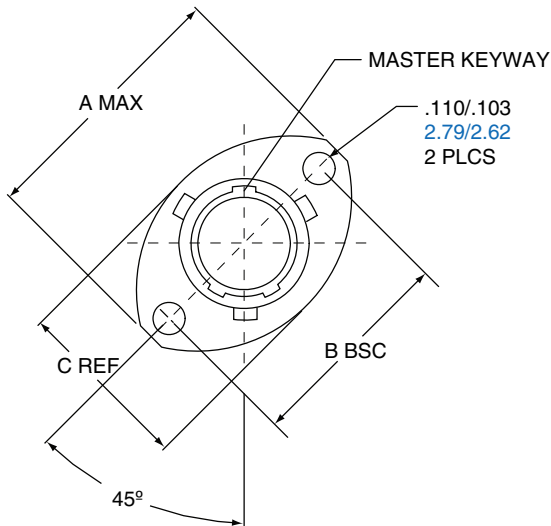
Receptacle View

2M803 Hermetic

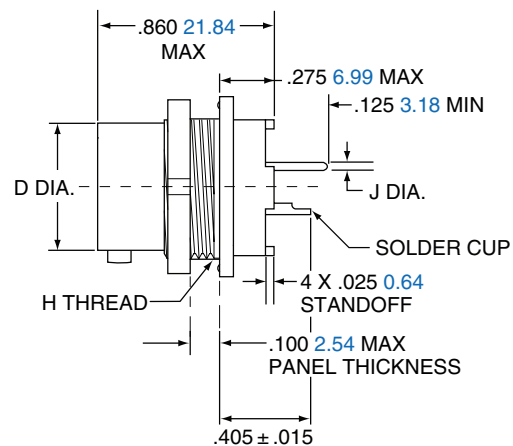
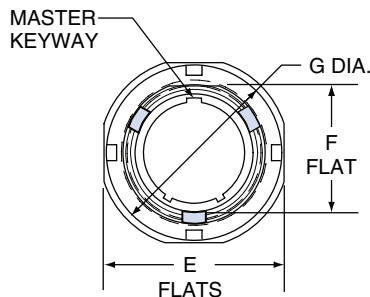
Flange Mount and Jam Nut 2M803-006-02 and -07



2M803-006-02



2M803-006-07



| Shell Size | A Max. | | B BSC. | | C Ref. | | D Dia. | | E Flats | | F Flat | | G Dia. | | H Thread | J PC Tail Dia. |
|------------|--------|-------|--------|-------|--------|-------|--------|-------|---------|-------|--------|-------|--------|-------|------------------|---|
| | in. | mm | in. | mm. | in. | mm | in. | mm. | in. | mm. | in. | mm. | in. | mm. | | |
| 5 | .710 | 18.03 | .513 | 13.03 | .460 | 11.68 | .300 | 7.62 | .545 | 13.84 | .350 | 8.89 | .575 | 14.61 | .3750-32 UNEF-2A | #23 .018/.022 0.46/0.56 |
| 6 | .788 | 20.02 | .598 | 15.19 | .522 | 13.26 | .362 | 9.19 | .595 | 15.11 | .410 | 10.42 | .635 | 16.13 | .4375-28 UNEF-2A | #20/20HD .025/.027 0.64/0.69 |
| 7 | .895 | 22.73 | .708 | 17.98 | .590 | 14.99 | .436 | 11.07 | .723 | 18.36 | .536 | 13.61 | .755 | 19.18 | .6250-32 UN-2A | #16 .060/.064 1.52/1.63 |
| 8 | 1.154 | 29.31 | .964 | 24.49 | .665 | 16.98 | .500 | 12.70 | .790 | 20.07 | .593 | 15.10 | .830 | 21.08 | .6250-28 UN-2A | #12 .092/.096 2.34/2.44 |
| 9 | 1.210 | 30.73 | 1.017 | 25.83 | .721 | 18.31 | .561 | 14.25 | .790 | 20.07 | .596 | 15.14 | .830 | 21.08 | .6250-28 UN-2A | |
| 10 | 1.291 | 32.79 | 1.101 | 27.97 | .795 | 20.19 | .635 | 16.13 | .925 | 23.51 | .721 | .721 | .955 | 24.26 | .7500-28 UN-2A | |
| 12 | 1.395 | 35.43 | 1.204 | 30.58 | .874 | 22.20 | .714 | 18.14 | 1.044 | 26.52 | .845 | 21.46 | 1.078 | 27.38 | .8750-28 UN-2A | |
| 14 | 1.550 | 39.37 | 1.280 | 32.51 | 1.050 | 26.67 | .865 | 21.97 | 1.230 | 31.24 | 1.022 | 25.96 | 1.264 | 32.11 | 1.0625-20 UN-2A | |
| 15 | N/A | N/A | N/A | N/A | N/A | N/A | .924 | 23.47 | 1.287 | 32.69 | 1.093 | 27.76 | 1.322 | 33.58 | 1.1250-28 UN-2A | |

38999 III

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2M801 Dual-Start

FEATURES:

- Low profile shells for minimum box protrusion
- Shell Standoffs for PC Board washout
- Non-removable PC and/or Solder cup contacts

2M801 Series of Hermetic Receptacles provide superior sealing of 1×10^{-8} cc/second helium leak rate and are 100% tested prior to shipping. This superior sealing is accomplished through the use of glass insulator fused to stainless steel shells and iron alloy contacts.

2M801 Hermetic

Ordering Guide for Hermetic Receptacle 2M801-012



| 1. Series | 2. Shell Size | 3. Service Class | 4. Shell Size-Insert Aggmt | 5. Contacts | 6. Keying |
|-----------|---------------|------------------|----------------------------|-------------|-----------|
| 2M801-012 | -02 | Z1 | 6-7 | P | A |

Example Part Number

| 1. SERIES | |
|------------------|---|
| Part # | Description |
| 2M801-012 | Hermetic Receptacles with Printed Circuit Board Contacts or Solder cup contacts |

| 2. SHELL SIZE | |
|---------------|--|
| Part # | Description |
| -02 | Flange Mount |
| -03 | Weld Mount (only available is Z1 finish) |
| -07 | Jam Nut |

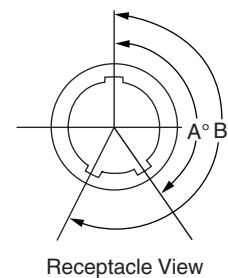
| 3. SERVICE CLASS | | | |
|------------------|-----------|--|------|
| Material | Part # | Description | RoHS |
| Stainless Steel | Z1 | Passivated | |
| | ZL | Electrolytic Nickel | |
| | ZB | Stainless Steel with Olive Drab Cadmium Finish | |

| 4. SHELL SIZE-INSERT ARRANGEMENT |
|----------------------------------|
| See Table pg 53-55 |

| 5. CONTACTS | |
|-------------|---|
| Part # | Description |
| P | Pin- Solder Cup |
| C | Pin-PC Tail |
| H | Pin, Solder Cup- Without Interfacial Seal |
| Y | Pin, PC Tail- Without Interfacial Seal |

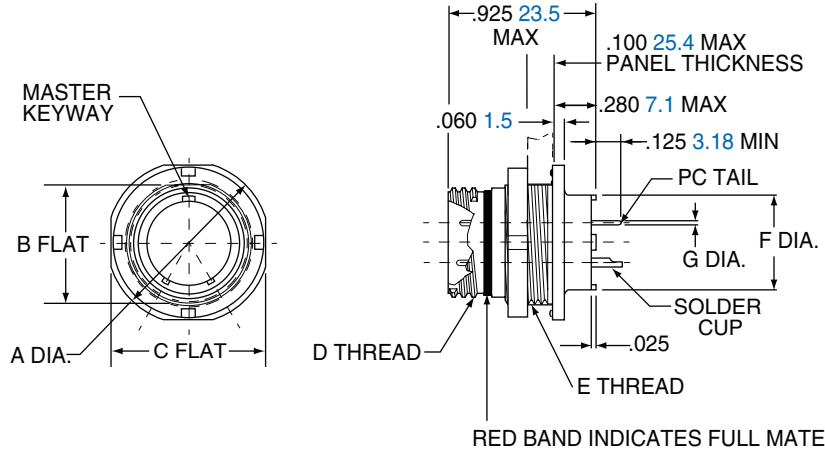
| 6. KEYING | | |
|-------------------|------|------|
| Part # | A° | B° |
| A (NORMAL) | 150° | 210° |
| B | 75° | 210° |
| C | 95° | 230° |
| D | 140° | 275° |
| E | 75° | 275° |
| F | 95° | 210° |

Note: Please contact the factory directly for a listing of tooled interfacial seals for the hermetically sealed connectors.

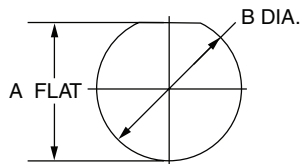


2M801 Hermetic

Hermetic Jam Nut Connector 2M801-012-07



| Shell Size | A Dia. | | B Flat | | C Flat | | D Thread | UN-2A E Thread | F Dia. | | G Dia. Tail Dia. |
|------------|--------|-------|--------|-------|--------|-------|-------------------|----------------|--------|-------|--|
| | in. | mm. | in. | mm. | in. | mm. | | | in. | mm. | |
| 5 | .575 | 14.61 | .350 | 8.89 | .545 | 13.84 | .3125-.05P-.1L-2A | .3750-28 | .244 | 6.20 | #23 |
| 6 | .635 | 16.13 | .410 | 10.41 | .595 | 15.11 | .3750-.05P-.1L-2A | .4375-28 | .330 | 8.38 | .018/.022 0.46/0.56 |
| 7 | .755 | 19.18 | .536 | 13.61 | .723 | 18.36 | .4375-.05P-.1L-2A | .5625-32 | .432 | 10.97 | #20/20HD |
| 8 | .755 | 19.18 | .536 | 13.61 | .723 | 18.36 | .5000-.05P-.1L-2A | .5625-32 | .493 | 12.52 | .024/.028 0.64/0.69 |
| 9 | .830 | 21.08 | .596 | 15.14 | .790 | 20.07 | .5625-.05P-.1L-2A | .6250-28 | .551 | 14.00 | |
| 10 | .890 | 22.61 | .658 | 16.71 | .855 | 21.72 | .6250-.05P-.1L-2A | .6875-28 | .620 | 15.75 | #16 |
| 13 | 1.078 | 27.38 | .845 | 21.46 | 1.044 | 26.52 | .8125-.1P-.2L-2A | .8750-28 | .703 | 17.86 | .060/.064 1.52/1.63 |
| 16 | 1.264 | 32.11 | 1.022 | 25.96 | 1.230 | 31.24 | 1.0000-.1P-.2L-2A | 1.0625-20 | .863 | 21.92 | #12 |
| 17 | 1.325 | 33.66 | 1.096 | 27.84 | 1.290 | 32.77 | 1.0625-.1P-.2L-2A | 1.125-28 | .912 | 23.16 | .092/.096 |
| 21 | 1.625 | 41.28 | 1.345 | 34.16 | 1.577 | 40.06 | 1.3125-.1P-.2L-2A | 1.375-28 | 1.170 | 29.72 | 2.34/2.44 |



| Shell Size | PANEL CUTOUT | | | |
|------------|--------------|------------|-----------|------------|
| | A Flat | | B Dia. | |
| | in. ±.002 | mm. ± 0.05 | in. ±.002 | mm. ± 0.05 |
| 5 | .356 | 9.04 | .385 | 9.78 |
| 6 | .416 | 10.57 | .447 | 11.35 |
| 7 | .542 | 13.77 | .572 | 14.53 |
| 8 | .542 | 13.77 | .572 | 14.53 |
| 9 | .602 | 15.29 | .635 | 16.13 |
| 10 | .666 | 16.92 | .697 | 17.70 |
| 13 | .851 | 21.62 | .885 | 22.48 |
| 16 | 1.028 | 26.11 | 1.075 | 27.31 |
| 17 | 1.102 | 27.99 | 1.135 | 28.83 |
| 21 | 1.354 | 34.39 | 1.385 | 35.18 |

38999 III

38999 II

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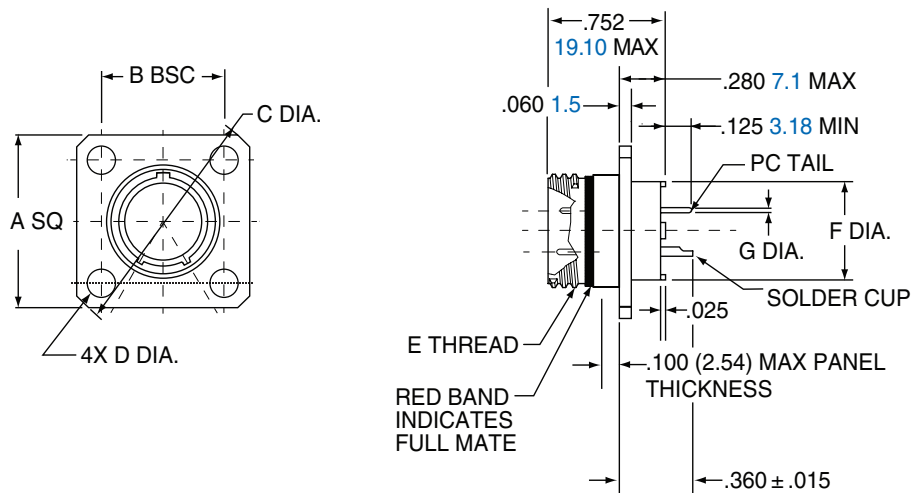
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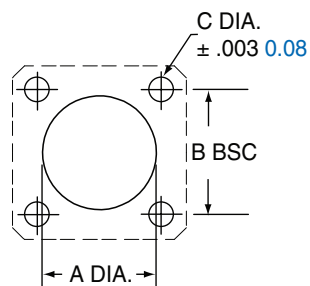
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2M801 Dual-Start ACME Threads

Hermetic Square Flange Connector 2M801-012-02



| Shell Size | A SQ. | | B BSC | | C Dia. | | D Dia. | | E Thread | F Dia. | | G Dia. Tail Dia. |
|------------|-------|-------|-------|-------|--------|-------|-----------|------------|-------------------|--------|-------|---|
| | in. | mm. | in. | mm. | in. | mm. | in. ±.003 | mm. ± 0.08 | | in. | mm. | |
| 5 | .530 | 13.46 | .363 | 9.22 | .680 | 17.27 | .093 | 2.36 | .3125-.05P-.1L-2A | .244 | 6.20 | #23 .018/.022 0.46/0.56 |
| 6 | .590 | 14.99 | .423 | 10.74 | .750 | 19.05 | .093 | 2.36 | .3750-.05P-.1L-2A | .330 | 8.38 | #20/20HD .025/.027 0.64/0.69 |
| 7 | .650 | 16.51 | .483 | 12.27 | .850 | 21.59 | .093 | 2.36 | .4375-.05P-.1L-2A | .432 | 10.97 | |
| 8 | .712 | 18.08 | .545 | 13.84 | .938 | 23.83 | .093 | 2.36 | .5000-.05P-.1L-2A | .493 | 12.52 | |
| 9 | .850 | 21.56 | .607 | 15.42 | 1.125 | 28.58 | .128 | 3.25 | .5625-.05P-.1L-2A | .551 | 14.00 | #16 .060/.064 1.52/1.63 |
| 10 | .890 | 22.61 | .670 | 17.02 | 1.188 | 30.18 | .128 | 3.25 | .6250-.05P-.1L-2A | .620 | 15.75 | |
| 13 | 1.030 | 26.16 | .812 | 20.62 | 1.375 | 34.93 | .128 | 3.25 | .8125-.1P-.2L-2A | .703 | 17.86 | |
| 16 | 1.219 | 31.96 | .981 | 24.92 | 1.625 | 41.28 | .128 | 3.25 | 1.0000-.1P-.2L-2A | .863 | 21.92 | #12 .092/.096 2.34/2.44 |
| 17 | 1.280 | 32.51 | 1.060 | 26.92 | 1.700 | 43.18 | .128 | 3.25 | 1.0625-.1P-.2L-2A | .912 | 23.16 | |
| 21 | 1.430 | 36.32 | 1.205 | 30.61 | 1.940 | 49.28 | .128 | 3.25 | 1.3125-.1P-.2L-2A | 1.170 | 29.72 | |



| PANEL CUTOUT | | | | | | |
|--------------|--------|-------|-------|-------|--------|------|
| Shell Size | A Dia. | | B BSC | | C Dia. | |
| | in. | mm. | in. | mm. | in. | mm. |
| 5 | .330 | 8.38 | .363 | 9.22 | .093 | 2.36 |
| 6 | .390 | 9.91 | .423 | 10.74 | .093 | 2.36 |
| 7 | .450 | 11.43 | .483 | 12.27 | .093 | 2.36 |
| 8 | .510 | 12.95 | .545 | 13.84 | .093 | 2.36 |
| 9 | .575 | 14.61 | .607 | 15.42 | .128 | 3.25 |
| 10 | .640 | 16.26 | .670 | 17.02 | .128 | 3.25 |
| 13 | .825 | 20.96 | .812 | 20.65 | .128 | 3.25 |
| 16 | 1.015 | 25.78 | .981 | 24.92 | .128 | 3.25 |
| 17 | 1.075 | 27.31 | 1.060 | 26.92 | .128 | 3.25 |
| 21 | 1.325 | 33.66 | 1.205 | 30.61 | .128 | 3.25 |

38999 III

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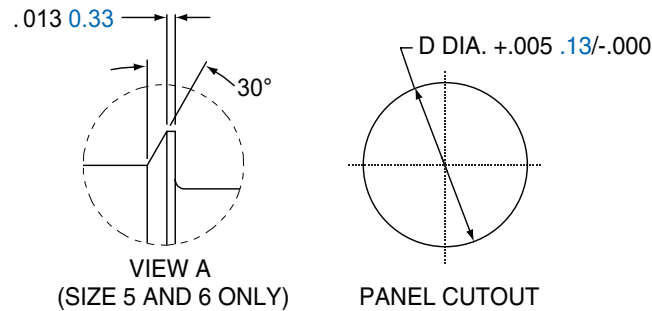
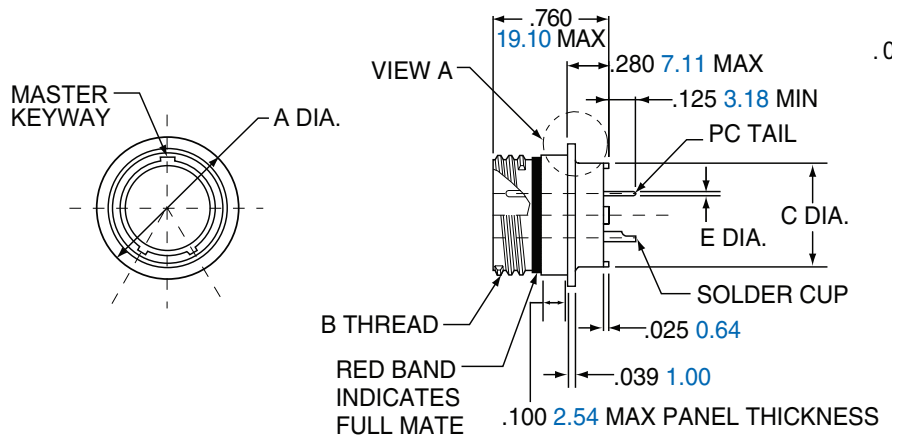
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2M801 Dual-Start ACME Threads

Hermetic Weld Mount Connector 2M801-012-03



| Shell Size | A Dia | | B Thread | C Dia. | | D Dia. Panel Cutout | | G. PC Tail Dia. |
|------------|-------|-------|-------------------|--------|-------|---------------------|-------|---|
| | in. | mm. | | in. | mm. | in. | mm. | |
| 5 | .395 | 10.03 | .3125-.05P-.1L-2A | .244 | 6.20 | .319 | 8.10 | #23 .018/.022 0.46/0.56 |
| 6 | .455 | 11.56 | .3750-.05P-.1L-2A | .330 | 8.38 | .379 | 9.55 | #20/20HD .024/.028 0.64/0.69 |
| 7 | .520 | 13.21 | .4375-.05P-.1L-2A | .432 | 11.97 | .438 | 11.13 | #16 .060/.064 1.52/1.63 |
| 8 | .580 | 14.73 | .5000-.05P-.1L-2A | .493 | 12.52 | .502 | 11.13 | #12 .092/.096 2.34/2.44 |
| 9 | .645 | 16.38 | .5625-.05P-.1L-2A | .551 | 14.00 | .563 | 14.30 | |
| 10 | .705 | 18.01 | .6250-.05P-.1L-2A | .620 | 15.75 | .627 | 11.13 | |
| 13 | .895 | 22.73 | .8125-.1P-.2L-2A | .703 | 17.86 | .814 | 20.68 | |
| 16 | 1.080 | 27.43 | 1.0000-.1P-.2L-2A | .863 | 21.92 | 1.007 | 25.58 | |
| 17 | 1.145 | 29.08 | 1.0625-.1P-.2L-2A | .912 | 23.16 | 1.067 | 27.10 | |
| 21 | 1.395 | 35.43 | 1.3125-.1P-.2L-2A | 1.170 | 29.72 | 1.320 | 33.53 | |

38999 III

38999 II

38999 I

SJT

Aquacon

2M801

83723

26482

26500