

83723

Pyle

The Amphenol MIL-DTL-83723, Series III family of connectors includes styles from Pyle National. These have proven technology for severe environments and are widely used in commercial and military aerospace markets. Amphenol/Pyle 83723 connectors incorporate many advantageous features, such as a unique threaded coupling mechanism that provides greater resistance to decoupling. This coupling mechanism eliminates the need for safety wiring and tends to couple during vibration - thus offering the user added assurance and a margin of safety.



FEATURES:

- **Hermetic**
Hermetic styles are available in threaded receptacles with solderwell or flat eyelet termination. PC Tail Designs are available on request.
- **Environmental**
Designed for environmental moisture sealing with fused compression glass sealed inserts
- **High Temperature Hermetics**
200°C and 260°C Firewall

MIL-DTL-83723, Series III, Pyle®

Manufacturer's Specifications

The Amphenol/Pyle® Product line of MIL-DTL-83723*, Series III Connectors was developed for the higher operating temperatures inherent in today's high performance aircraft and aircraft engines.

THESE CONNECTORS MEET THE PERFORMANCE REQUIREMENTS OF THE FOLLOWING MANUFACTURER'S SPECIFICATIONS:

- European: ASD† EN2997
- Rolls Royce/SBAC: ESC10

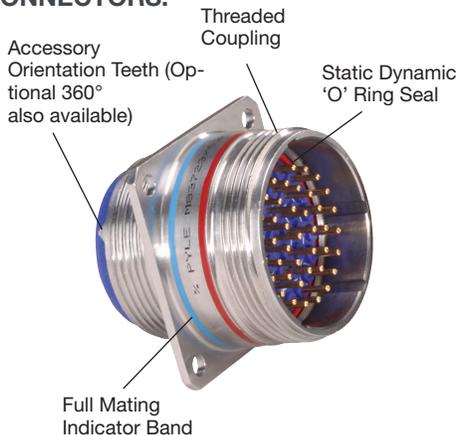
HERMETIC CONNECTOR PERFORMANCE CHARACTERISTICS

| | |
|---|---|
| Thermal Shock | No damage detrimental to the operation of the connector occurs when subjected to 10 cycles of thermal shock from 0°C to 90°C and back to 0°C. |
| Physical Shock (Mated) | 300 G's |
| Moisture Resistance (Mated) | 500 Megohms |
| Insulation Resistance, High Temp. (Mated) | 500 Megohms |
| Corrosion (Unmated) | Complies with MIL-DTL-83723 Req. |
| Temperature Life | Fully functional for 1000 hours at 200°C (392°F) ambient. Internal temperature 238°C (460°F). |
| Air Leakage (Unmated) | Less than .01 micron per cubic feet per hour on application of 15 PDS pressure differential across the connector. |
| Altitude Immersion (Mated) | After 3 cycles immersed in salt water with pressure reduced to 1 in. Hg (75,000 ft. altitude) for 30 minutes and returned to atmosphere pressure. While connectors submerged insulation resistance should remain 1000 megohms minimum and support 1500 volts RMS applied without flash-over or breakdown. |
| High Potential Voltage Altitude (Unmated) | When tested in accordance with MIL-STD-202, Method 301, no flash-over or breakdown under simulated altitude conditions as shown: Altitude/Service Rating I 50,000 500 AC-RMS 70,000 375 AC-RMS 110,000 200 AC-RMS |

* BACC63CM supersedes BACC63BR and BACC63CN supersedes BACC63BT.

† ASD supersedes AECMA

AMPHENOL AEROSPACE OFFERS THE PYLE® PRODUCT LINE OF MIL-DTL-83723*, SERIES III CONNECTORS.



DESIGN FEATURES (THREADED STYLE SHOWN)

The Amphenol MIL-DTL-83723, Series III family of connectors includes styles from Pyle National. These have proven technology for severe environments and are widely used in commercial and military aerospace markets.

Amphenol/Pyle 83723 Series III high temperature styles are capable of operation at 260° C/500°F.

The Pyle 83723 family provides hermetic class that exceed the most stringent specification requirements.

HERMETIC STYLE CONNECTORS

- Hermetic styles are available in threaded receptacles with solderwell or flat eyelet termination. PC Tail Designs are available on request.
- Designed for environmental moisture sealing with fused compression glass sealed inserts
- High temperature hermetics 200°C and 260°C Firewall

SERVICE RATINGS

| Service Rating | Recommended Operating AC Voltage at Sea Level | Test Voltage AC (RMS), 60 cps | | | |
|----------------|---|-------------------------------|------------|------------|-------------|
| | | Sea Level | 50,000 ft. | 70,000 ft. | 110,000 ft. |
| I | 600 | 1,500 | 500 | 375 | 200 |

Please note that the electrical data given is not an establishment of electrical safety factors. This is left entirely in the designer's hands as he can best determine which peak voltage, switching surges, transients, etc. can be expected in a particular circuit.

MIL-DTL-83723, Series III, Pyle®

Hermetic Receptacles, cont. - Quick Reference

MIL-DTL-83723, SERIES III HERMETIC SOLDER MOUNT/WELD MOUNT RECEPTACLE, THREADED COUPLING

| MILITARY | |
|-------------------|---|
| M83723/90Y | Stainless Steel, Class Y, Solderwell contacts |
| M83723/90P | Stainless Steel, Class P, Eyelet contacts |

| COMMERCIAL | |
|----------------------------------|---|
| BTY-14 | Stainless Steel, 'O' ring Seal, Solderwell or Eyelet contacts, 200°C or 260°C |
| BFY-14 | Stainless Steel, Static Dynamic Seal, Solderwell or Eyelet contacts, 200°C or 260°C |
| BNY-14 | Stainless Steel, Static Dynamic Seal, Electro-deposited Nickel, Solderwell or Eyelet contacts, 200°C or 260°C |
| COMMERCIAL ASD | |
| EN2997YI/ YE1 | Meets ASD Specifications, Stainless Steel, Class Y (200°C) / Class YE (260°C), Solderwell contacts |
| COMMERCIAL ROLLS ROYCE STANDARDS | |
| ESC10YE1 | 260°C Firewall, Stainless Steel, Class YE, Solderwell contacts |
| ESC11YE1 | 260°C Firewall, Stainless Steel, Class YE, Solderwell contacts, Scoop-proof Recessed pins |
| PCB Tails available upon request | |

SERVICE CLASSES HERMETIC MILITARY AND COMMERCIAL

| HERMETIC | |
|-----------|--|
| Y | Stainless steel, 200°C, hermetic with solderwell contacts |
| P | Stainless steel, 200°C, hermetic with eyelet contacts |
| YE | Stainless steel, high temp. (260°C) firewall capability, hermetic with solderwell contacts |



**HERMETIC
SOLDER MOUNT/WELD
MOUNT RECEPTACLE,
THREADED**

38999 III

38999 II

38999 I

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Commercial BTY, BFY and BNY meet European specifications and General Electric spec. GEM50TF3564, Classes A & B. Shell sizes 20, 24 and 28, consult Amphenol Aerospace for availability. Hermetic style receptacles are not included in Boeing designations.

MIL-DTL-83723, Series III, Pyle®

Hermetic Receptacles - Quick Reference

38999 III

38999 II

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MIL-DTL-83723, SERIES III, HERMETIC SQUARE FLANGE RECEPTACLE, THREADED COUPLING

| MILITARY | |
|----------------------------------|---|
| M83723/88Y | Stainless Steel, Class Y, Solderwell contacts |
| M83723/88P | Stainless Steel, Class P, Eyelet contacts |
| COMMERCIAL | |
| BTY-17 | Stainless Steel, 'O' ring Seal, Solderwell or Eyelet contacts, 200°C or 260°C |
| BFY-17 | Stainless Steel, Static Dynamic Seal, Solderwell or Eyelet contacts, 200°C or 260°C |
| BNY-17 | Stainless Steel, Static Dynamic Seal, Electro-deposited Nickel, Solderwell or Eyelet contacts, 200°C or 260°C |
| COMMERCIAL ASD | |
| EN2997Y0 / YE0 | Meets ASD Specifications, Stainless Steel, Class Y (200°C) / Class YE (260°C), Solderwell contacts |
| COMMERCIAL ROLLS ROYCE STANDARDS | |
| ESC10YE2 | 260°C Firewall, Stainless Steel, Class YE, Solderwell contacts |
| ESC10YE2 | 260°C Firewall, Stainless Steel, Class YE, Solderwell contacts, Scoop-proof Recessed pins |
| PCB Tails available upon request | |

MIL-DTL-83723, SERIES III, HERMETIC JAM NUT RECEPTACLE, THREADED COUPLING

| MILITARY | |
|----------------------------------|---|
| M83723/89Y | Stainless Steel, Class Y, Solderwell contacts |
| M83723/89P | Stainless Steel, Class Y, Eyelet contacts |
| COMMERCIAL | |
| BTY-19 | Stainless Steel, 'O' ring Seal, Solderwell or Eyelet contacts, 200°C or 260°C |
| BFY-19 | Stainless Steel, Static Dynamic Seal, Electro-deposited Nickel, Solderwell or Eyelet contacts, 200°C or 260°C |
| BNY-19 | Stainless Steel, Static Dynamic Seal, Electro-deposited Nickel, Solderwell or Eyelet contacts, 200°C or 260°C |
| COMMERCIAL ASD | |
| EN2997Y7 / YE7 | Meets ASD Specifications, Stainless Steel, Class Y (200°C) / Class YE (260°C), Solderwell contacts |
| COMMERCIAL ROLLS ROYCE STANDARDS | |
| ESC10YE3 | 260°C Firewall, Stainless Steel, Class YE, Solderwell contacts |
| ESC11YE3 | 260°C Firewall, Stainless Steel, Class YE, Solderwell contacts, Scoop-proof Recessed pins |
| PCB Tails available upon request | |

SERVICE CLASSES HERMETIC MILITARY AND COMMERCIAL

| HERMETIC | |
|-----------|--|
| Y | Stainless Steel, 200°C, hermetic with solderwell contacts |
| P | Stainless steel, 200°C, hermetic with eyelet contacts |
| YE | Stainless steel, high temp. (260°C) firewall capability, hermetic with solderwell contacts |



HERMETIC SQUARE FLANGE RECEPTACLE, THREADED



HERMETIC JAM NUT RECEPTACLE, THREADED

Commercial BTY, BFY and BNY meet European specifications and General Electric spec. GEM50TF3564, Classes A & B.

Shell sizes 20, 24 and 28, consult Amphenol Aerospace for availability. Hermetic style receptacles are not included in Boeing designations.

Insert Availability and Identification, Alternate Keying Positions

INSERT ARRANGEMENTS

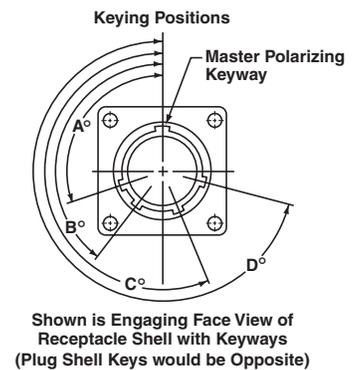
| Shell Size/ Insert Arrangement | Service Rating | Total Contacts | Contact Size | | | |
|--------------------------------------|-------------------|-------------------|--------------|----|----|----|
| | | | 8 | 12 | 16 | 20 |
| 08-03 | I | 3 | | | | 3 |
| 08-98 | I | 3 | | | | 3 |
| 10-02** | I | 2 | | | | 2 |
| 10-05 | I | 5 | | | | 5 |
| 10-06 | I | 6 | | | | 6 |
| 10-20 | I | 2 | | | 2 | |
| 12-03*** | I | 3 | | | 3 | |
| 12-12 | I | 12 | | | | 12 |
| 14-04*** | I | 4 | | 4 | | |
| 14-07*** | I | 7 | | | 7 | |
| 14-12 | I | 12 | | | 3 | 9 |
| 14-15 | I | 15 | | | | 15 |
| 16-10*** | I | 10 | | | 10 | |
| 16-24 | I | 24 | | | | 24 |
| 18-08 | I | 8 | | 8 | | |
| 18-14*** | I | 14 | | | 14 | |
| 18-31 | I | 31 | | | | 31 |

† Not an MS layout.
 * Special - consult Amphenol for availability.
 ** Special Pyle with Matrix 83723 insert (ESC10 type, EN2997 Spec); consult Amphenol Aerospace for availability. Size 8 and Size 12 cavities can accommodate Twinax or Coax contacts; consult Amphenol for information. Sizes 20, 24 and 28 Hermetic; consult Amphenol Aerospace for availability.

ALTERNATE KEYING POSITIONS (ROTATION OF KEY/KEYWAY OF SHELL)

To avoid cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement, alternate keying positions are available as indicated in the chart below. The diagram shows the engaging view of a receptacle shell with keyways. The insert is rotated counter-clockwise relative to the center-line. Plug shells would be the opposite of this diagram.

In the "Normal insert position" (position N), the insert center line coincides with the center-line of the master key/keyway of the shell. In the "alternate keying positions" (positions 6, 7, 8, 9 and Y), the minor keys/keyways are positioned with reference to master key/keyway as indicated in the keying position table.



ALTERNATE KEYING POSITIONS OF SHELL

| Shell Size | Polarizing Position | Key/Keyway Positions | | | |
|-----------------------------------|---------------------|----------------------|-----|-----|-----|
| | | A° | B° | C° | D° |
| 8 thru 24 | N | 105 | 140 | 215 | 265 |
| | 6 | 102 | 132 | 248 | 320 |
| | 7 | 80 | 118 | 230 | 312 |
| | 8 | 35 | 140 | 205 | 275 |
| 8 & 10 | 9 | 64 | 155 | 234 | 304 |
| | 10 only | Y†† | 25 | 115 | 220 |
| 12, 14, 16, 18, 20, 22, 24 and 28 | 6 | 18 | 149 | 192 | 259 |
| | 7 | 92 | 152 | 222 | 342 |
| | 8 | 84 | 152 | 204 | 334 |
| | 9 | 24 | 135 | 199 | 240 |
| | Y†† | 98 | 152 | 268 | 338 |

ESC 11 (HTK SERIES) ONLY

| Shell Size | Polarizing Position | Key/Keyway Positions | | | |
|------------|---------------------|----------------------|-----|-----|-----|
| | | A° | B° | C° | D° |
| 14 thru 24 | N | 95 | 145 | 220 | 255 |
| | 6 | 101 | 168 | 211 | 342 |
| | 7 | 18 | 138 | 208 | 268 |
| | 8 | 26 | 156 | 208 | 276 |
| | 9 | 120 | 161 | 225 | 336 |

†† Position Y supersedes inactive positions 10 and Z designations. Ref. MIL-STD-1554.

MIL-DTL-83723, Series III, Pyle®

Insert Arrangements

Front face of pin insert or rear face of socket insert illustrated

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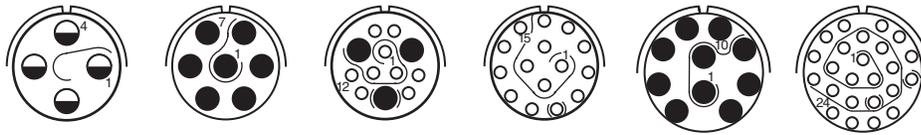
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| Insert Arrangement | 08-03 | 08-98 | 10-02** | 10-05 | 10-06 | 10-20 | 12-03*** | 12-12 |
|--------------------|-------|-------|---------|-------|-------|-------|----------|-------|
| Service Rating | I | I | I | I | I | I | I | I |
| Number of Contacts | 3 | 3 | 2 | 5 | 6 | 2 | 3 | 12 |
| Contact Size | 20 | 20 | 20 | 20 | 20 | 16 | 16 | 20 |



| Insert Arrangement | 14-04*** | 14-07*** | 14-12** | | 14-15 | 16-10*** | 16-24 |
|--------------------|----------|----------|---------|----|-------|----------|-------|
| Service Rating | I | I | I | I | I | I | I |
| Number of Contacts | 4 | 7 | 9 | 3 | 15 | 10 | 24 |
| Contact Size | 12 | 16 | 20 | 16 | 20 | 16 | 20 |



| Insert Arrangement | 18-08 | 18-14*** | 18-31 |
|--------------------|-------|----------|-------|
| Service Rating | I | I | I |
| Number of Contacts | 8 | 14 | 31 |
| Contact Size | 12 | 16 | 20 |

†Not an MS layout.

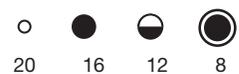
*Special - consult Amphenol Aerospace for availability.

** Special Pyle with Matrix 83723 insert (ESC10 type, EN2997 Spec); consult Amphenol Aerospace for availability.

Size 8 and Size 12 cavities can accommodate Twinax or Coax contacts; consult Amphenol Aerospace for information.

Sizes 20, 24 and 28 Hermetic; consult Amphenol Aerospace for availability.

CONTACT LEGEND



MILITARY HERMETIC

| 1. Connector Type | 2. Connector Style and Contact Type (Crimp) | 3. Service Class | 4. Shell Size/ Insert Arrangement | 5. Alternate Keying Position of Shell |
|-------------------|---|------------------|-----------------------------------|---------------------------------------|
| M83723 | /88 | Y | 16-24 | 6 |

COMMERCIAL HERMETIC

| 1. Connector Style | 2. Shell Style | 3. Shell Size/ Insert Arrangement | 4. Contact Type | 5. Contact Style | 6. Alternate Contact Finish | 7. Alternate Keying Position of Shell | 8. Variations |
|--------------------|----------------|-----------------------------------|-----------------|------------------|-----------------------------|---------------------------------------|---------------|
| BTY | -17 | 16-24 | P | 1 | D | 06 | XXXX |

1. MILITARY CONNECTOR TYPE

M83723 Designates MIL-DTL-83723 Series III Connectors

2. MILITARY HERMETIC CONNECTOR STYLE

| | |
|------------|--|
| /88 | Hermetic, Threaded Square Flange Receptacle |
| /89 | Hermetic, Threaded Jam Nut (D-Hole Mount) Receptacle |
| /90 | Hermetic, Threaded Solder Mounted Receptacle |

3. SERVICE CLASS

| | |
|----------|--|
| Y | Hermetic, Stainless Steel, 200°C, with Solderwell Contacts |
| H | Hermetic, Tin Plated Carbon Steel, 150° C |

For availability of a Plated Steel Shell, consult Amphenol Aerospace.

4. SHELL SIZE & INSERT ARRANGEMENT

Page 78 First number represents Shell Size, second number is the Insert Arrangement

5. ALTERNATE KEYING POSITION - ROTATION

Page 77 Use N for normal. Use 6, 7, 8, 9 or Y for alternate keying positions. See page 77 for descriptions.

1. COMMERCIAL HERMETIC CONNECTOR STYLE

| | |
|------------|--|
| BTY | Hermetic, Threaded, Stainless Steel, with 'O' ring seal |
| BFY | Hermetic, Threaded, Stainless Steel, Static/Dynamic Seal |
| BNY | Hermetic, Threaded, Stainless Steel, Electro-deposited Nickel plated, with Static/Dynamic Seal |

2. SHELL STYLE

| | |
|------------|-----------------------------------|
| -17 | Square Flange Receptacle |
| -19 | Jam Nut (D-Hole Mount) Receptacle |
| -14 | Solder Mounted Receptacle |

3. SHELL SIZE & INSERT ARRANGEMENT

Page 78 First number represents Shell Size, second number is the Insert Arrangement

4. CONTACT TYPE

P Pin Contacts

5. CONTACT STYLE

| | |
|----------|-------------------------------------|
| 1 | Solderwell Contacts (Mil-Spec Type) |
| 4 | Eyelet Contacts |

6. ALTERNATE CONTACT FINISH

| | |
|----------|---------------------------------------|
| D | .000050 (per MIL-DTL-83723, III) Gold |
| V | .000100 Gold |

7. ALTERNATE KEYING POSITION - ROTATION

Page 77 Use N for normal. Use 6, 7, 8, 9 or Y for alternate keying positions. See page 77 for descriptions.

8. VARIATIONS

| | |
|-------------|--|
| Y144 | 260°C Capability (Euro Market) |
| Y163 | 200°C Capability (Euro Market) |
| Y186 | 260°C Capability per G.E. M50TF3564, Class B |
| Y188 | 200°C Capability per G.E. M50TF3564, Class A |

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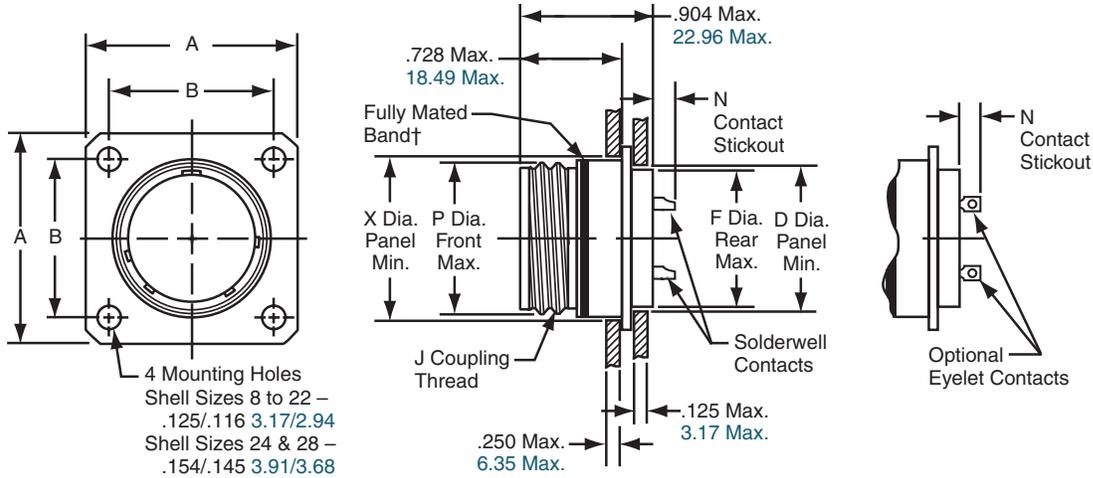
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Hermetic Square Flange Mount Receptacle, Threaded Coupling

Military (MS83723/88), Commercial (BTY, BFY, BNY)

QUICK REFERENCE Page 75-76
PART NUMBER BUILDER Page 79

| | |
|-------------------|-----------------------|
| MILITARY | COMMERCIAL |
| M83723/88Y | BTY/BFY/BNY-17 |
| M83723/88P | EN2997Y0 / YE0 |
| | ESC10YE2 |
| | ESC11YE2 |



† When fully mated with plug, this band will be covered.
(Band is red on military types; can be red or blue on commercial types).

Inches

| Shell Size | A ±.010 | B ±.005 | D Dia. Panel Min. | F Dia. Rear Max. | J Coupling Thread Class 2A | N Contact Stickout | | P Dia. Front Max. | X Dia. Panel Min. |
|------------|------------|------------|-------------------------|------------------------|----------------------------------|-----------------------|-----------------------------|-------------------------|-------------------------|
| | | | | | | Size 20 Contacts | Size 12 & 16 Contacts | | |
| 8 | .812 | .594 | .510 | .500 | .5625-24 UNF | .194 / .134 | .224 / .164 | .562 | .572 |
| 10 | .937 | .719 | .635 | .625 | .6875-24 UNEF | .194 / .134 | .224 / .164 | .696 | .706 |
| 12 | 1.031 | .812 | .760 | .750 | .8750-20 UNEF | .194 / .134 | .224 / .164 | .875 | .885 |
| 14 | 1.125 | .906 | .885 | .875 | .9375-20 UNEF | .194 / .134 | .224 / .164 | .936 | .946 |
| 16 | 1.250 | .969 | 1.010 | 1.000 | 1.0625-18 UNEF | .194 / .134 | .224 / .164 | 1.062 | 1.072 |
| 18 | 1.343 | 1.062 | 1.072 | 1.062 | 1.1875-18 UNEF | .194 / .134 | .224 / .164 | 1.187 | 1.197 |
| 22 | 1.562 | 1.250 | 1.322 | 1.312 | 1.4375-18 UNEF | .194 / .134 | .224 / .164 | 1.437 | 1.447 |

Millimeters

| Shell Size | A ±.25 | B ±.13 | D Dia. Panel Min. | F Dia. Rear Max. | P Dia. Front Max. | X Dia. Panel Min. |
|------------|-----------|-----------|-------------------------|------------------------|-------------------------|-------------------------|
| 8 | 20.62 | 15.09 | 12.95 | 12.70 | 14.27 | 15.75 |
| 10 | 23.80 | 18.26 | 16.13 | 15.88 | 17.68 | 18.99 |
| 12 | 26.19 | 20.62 | 19.30 | 19.05 | 22.23 | 23.19 |
| 14 | 28.58 | 23.01 | 22.48 | 22.23 | 23.77 | 24.89 |
| 16 | 31.75 | 24.61 | 25.65 | 25.40 | 26.97 | 28.12 |
| 18 | 34.11 | 26.97 | 27.23 | 26.97 | 30.15 | 30.71 |
| 22 | 39.67 | 31.75 | 33.58 | 33.32 | 36.50 | 36.88 |

Commercial hermetics meet some European and GE specifications. Hermetic styles are threaded coupling only. Shell sizes 20, 24 and 28, consult Amphenol for availability. All dimensions for reference only.

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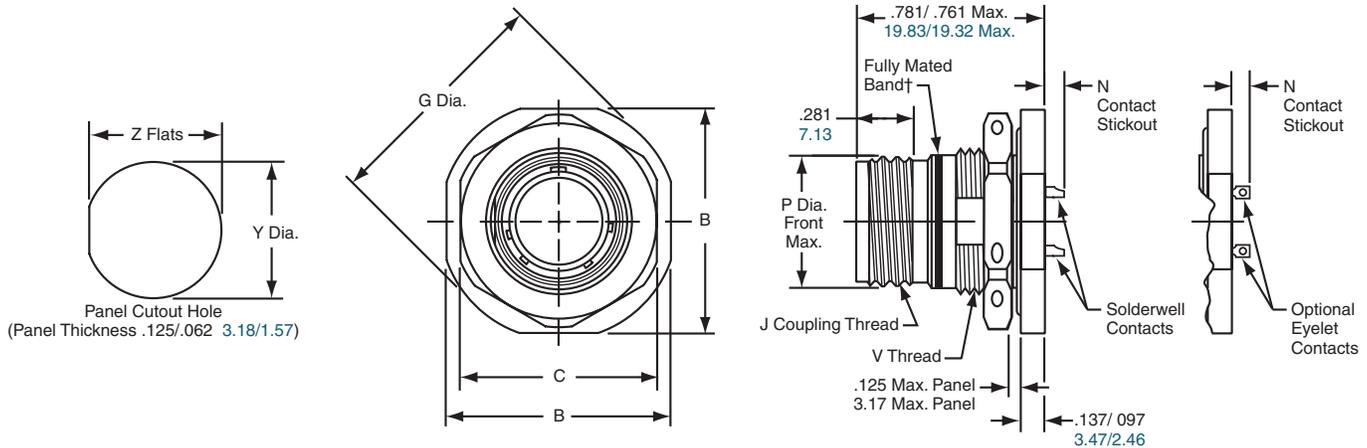
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Hermetic Jam Nut (D-Hole Mount) Receptacle, Threaded Coupling

Military (MS83723/89), Commercial (BTY, BFY, BNY)

QUICK REFERENCE Page 75-76
PART NUMBER BUILDER Page 79

| | |
|-------------------|-------------------------|
| MILITARY | COMMERCIAL |
| M83723/89Y | BTY, BFY, BNY-19 |
| M83723/89P | EN2997Y7, YE7 |
| | ESC10YE3 |
| | ESC11YE3 |



† When fully mated with plug, this band will be covered.
 (Band is red on military types; can be red or blue on commercial types).

Inches

| Shell Size | B Flats Max. | C Hex Max. | G Dia. Max. | J Coupling Thread Class 2A | N Contact Stickout | | P Dia. Front Max. | V Thread Class 2A | Y Dia. ±.005 | Z Flats ±.005 |
|------------|--------------|------------|-------------|----------------------------|--------------------|-----------------------|-------------------|-------------------|--------------|---------------|
| | | | | | Size 20 Contacts | Size 12 & 16 Contacts | | | | |
| 8 | .980 | .828 | 1.068 | .5625-24 UNF | .180 / .120 | .210 / .150 | .562 | .6250-20 UNF | .635 | .605 |
| 10 | 1.104 | .953 | 1.192 | .6875-24 UNEF | .180 / .120 | .210 / .150 | .696 | .7500-20 UNEF | .760 | .730 |
| 12 | 1.291 | 1.140 | 1.380 | .8750-20 UNEF | .180 / .120 | .210 / .150 | .875 | .9380-20 UNEF | .947 | .917 |
| 14 | 1.391 | 1.205 | 1.505 | .9375-20 UNEF | .180 / .120 | .210 / .150 | .936 | 1.0000-20 UNEF | 1.010 | .980 |
| 16 | 1.516 | 1.329 | 1.630 | 1.0625-18 UNEF | .180 / .120 | .210 / .150 | 1.062 | 1.1250-18 UNEF | 1.135 | 1.105 |
| 18 | 1.641 | 1.455 | 1.756 | 1.1875-18 UNEF | .180 / .120 | .210 / .150 | 1.187 | 1.2500-18 UNEF | 1.260 | 1.225 |
| 22 | 1.954 | 1.705 | 2.068 | 1.4375-18 UNEF | .180 / .120 | .210 / .150 | 1.437 | 1.5000-18 UNEF | 1.510 | 1.475 |

Millimeters

| Shell Size | B Flats Max. | C Hex Max. | G Dia. Max. | N Contact Stickout | | P Dia. Front Max. | Y Dia. ±.13 | Z Flats ±.13 |
|------------|--------------|------------|-------------|--------------------|-----------------------|-------------------|-------------|--------------|
| | | | | Size 20 Contacts | Size 12 & 16 Contacts | | | |
| 8 | 24.89 | 21.03 | 27.13 | 4.57 / 3.05 | 5.33 / 3.81 | 14.27 | 16.13 | 15.37 |
| 10 | 28.04 | 24.21 | 30.28 | 4.57 / 3.05 | 5.33 / 3.81 | 17.68 | 19.30 | 18.54 |
| 12 | 32.79 | 28.96 | 35.05 | 4.57 / 3.05 | 5.33 / 3.81 | 22.23 | 24.05 | 23.29 |
| 14 | 35.33 | 30.61 | 38.23 | 4.57 / 3.05 | 5.33 / 3.81 | 23.77 | 25.65 | 24.89 |
| 16 | 38.51 | 33.76 | 41.40 | 4.57 / 3.05 | 5.33 / 3.81 | 26.97 | 28.83 | 28.07 |
| 18 | 41.68 | 36.96 | 44.60 | 4.57 / 3.05 | 5.33 / 3.81 | 30.15 | 32.00 | 31.12 |
| 22 | 49.63 | 43.31 | 52.53 | 4.57 / 3.05 | 5.33 / 3.81 | 36.47 | 38.35 | 37.47 |

Commercial hermetics meet some European and GE specifications. Hermetic styles are threaded coupling only.

Shell sizes 20, 24 and 28, consult Amphenol for availability. All dimensions for reference only.

38999 III

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Hermetic Solder/Weld Mount Receptacle, Threaded Coupling

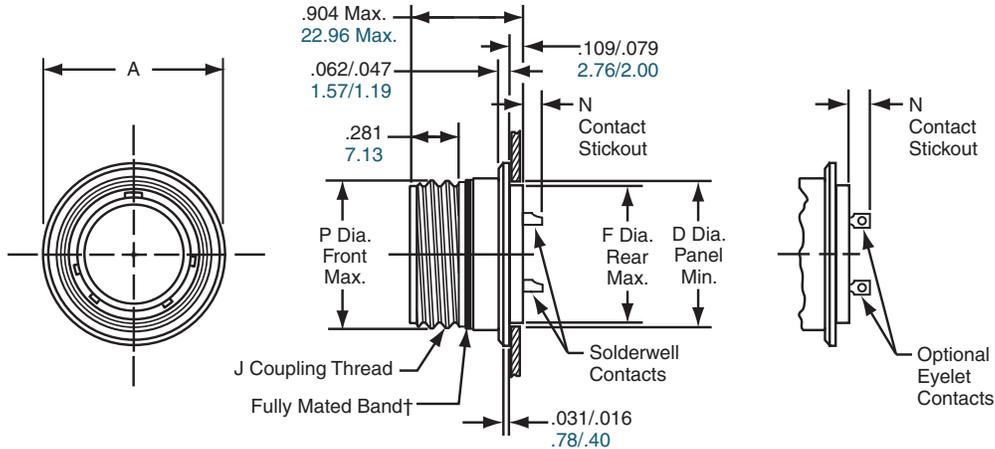
Military (M83723/90), Commercial (BTY, BFY, BNY)

QUICK REFERENCE Page 75-76
PART NUMBER BUILDER Page 79

MILITARY
M83723/90Y
M83723/90P

COMMERCIAL
BTY/BFY/BNY-14
EN2997Y1 / YE1
ESC10YE1
ESC11YE1

Hermetically sealed receptacles have fused compression glass sealed inserts which provide environmental moisture sealing. There are three hermetic styles within the PT bayonet series.



† When fully mated with plug this band will be covered.
 (Band is red on military types; can be red or blue on commercial types).

Inches

| Shell Size | A Dia. ±.010 | D Dia. Panel Min. | F Dia. Rear Max. | J Coupling Thread Class 2A | N Contact Stickout | | P Dia. Front Max. |
|------------|--------------|-------------------|------------------|----------------------------|--------------------|-----------------------|-------------------|
| | | | | | Size 20 Contacts | Size 12 & 16 Contacts | |
| 8 | .713 | .510 | .500 | .5625-24 UNF | .194 / .134 | .224 / .164 | .562 |
| 10 | .840 | .572 | .562 | .6875-24 UNEF | .194 / .134 | .224 / .164 | .696 |
| 12 | 1.045 | .760 | .750 | .8750-20 UNEF | .194 / .134 | .224 / .164 | .875 |
| 14 | 1.090 | .822 | .812 | .9375-20 UNEF | .194 / .134 | .224 / .164 | .936 |
| 16 | 1.210 | .947 | .937 | 1.0625-18 UNEF | .194 / .134 | .224 / .164 | 1.062 |
| 18 | 1.340 | 1.072 | 1.062 | 1.1875-18 UNEF | .194 / .134 | .224 / .164 | 1.187 |
| 22 | 1.562 | 1.322 | 1.312 | 1.4375-18 UNEF | .194 / .134 | .224 / .164 | 1.437 |

Millimeters

| Shell Size | A Dia. ±.25 | D Dia. Panel Min. | F Dia. Rear Max. | P Dia. Front Max. |
|------------|-------------|-------------------|------------------|-------------------|
| 8 | 18.11 | 12.95 | 12.70 | 14.27 |
| 10 | 21.34 | 14.53 | 14.27 | 17.68 |
| 12 | 26.54 | 19.30 | 19.05 | 22.23 |
| 14 | 27.69 | 20.88 | 20.62 | 23.77 |
| 16 | 30.73 | 24.05 | 23.80 | 26.97 |
| 18 | 34.04 | 27.23 | 26.97 | 30.15 |
| 22 | 39.67 | 33.58 | 33.32 | 36.50 |

Commercial hermetics meet some European and GE specifications. Hermetic styles are threaded coupling only.

Shell sizes 20, 24 and 28, consult Amphenol for availability. All dimensions for reference only.

38999 III

38999 II

38999 I

SJT

Aquacon

2M

83723

26482

26500