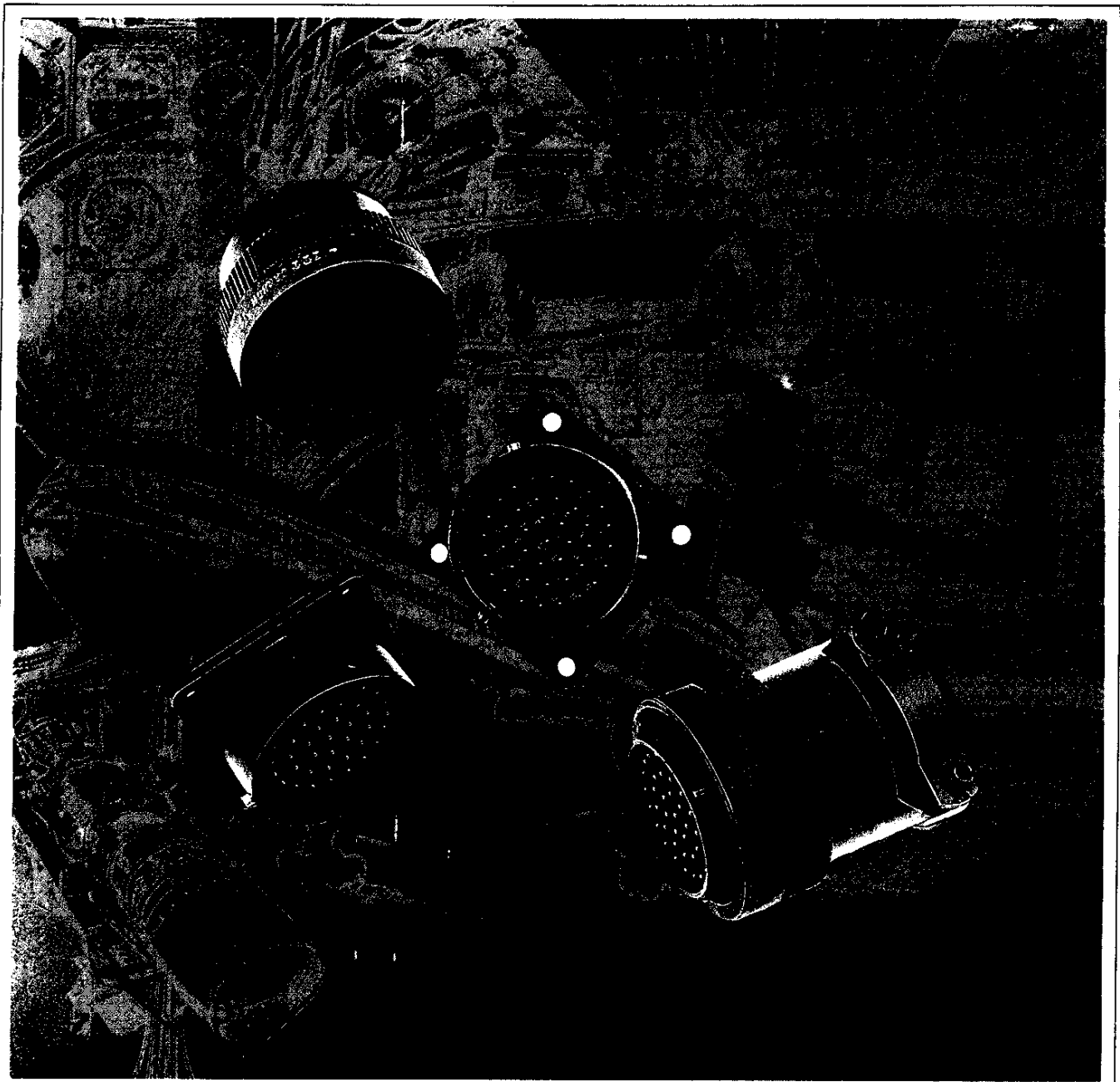


Miniature Circular Connectors

bayonet type, designed to MIL-C-26482
(Series I, solder and crimp contacts)

■ KPT ■ KPTM ■ KPSE

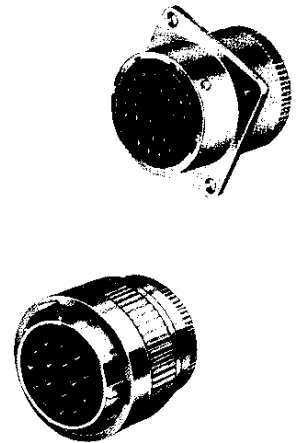


This catalog describes CANNON® miniature circular connectors using MIL-C-26482 Series I type hardware with three-point bayonet coupling and five-key polarization. The most complete family of MS26482 connectors available today, they are grouped in three basic series ranging from general purpose military and commercial solder pot connectors . . . to high performance, crimp connectors . . . to connectors with high contact density.

All of these connectors reflect ITT Cannon's continuing dedication to quality and reliability. Their versatility is proven by their fulfillment of requirements ranging from commercial, military general purpose, to space environmental.

In addition to the three basic series, connector are also available for special applications. They include RFI filtering versions (with low pass internal filter pin contacts), hermetic connectors for high pressure watertight requirements, and twist-on pull-off couplers for MIL-C-26482 plugs.

For additional information write to ITT Cannon, A Division of ITT Corporation, 666 East Dyer Road, Santa Ana, California 92705-5684, Telephone (714) 557-4700. Or call toll-free 1-800-845-7000 for your nearest sales area office.



Contents

| | |
|--------------------------------------|-------|
| Introduction | 2 |
| Quick Selector Chart | 2 |
| Standard Data | 3 |
| KPT | 4 |
| KPTM | 5 |
| KPSE | 6 |
| Performance Requirements | 7 |
| Contact Arrangements | 8-9 |
| Wall Mounting Receptacles | 10 |
| Cable Connecting Plugs | 11 |
| Box Mounting Receptacles | 12 |
| Thru-Bulkhead Receptacles | 12 |
| Straight Plugs | 13 |
| Jam Nut Receptacles | 14 |
| Right Angle Plugs | 15 |
| Panel Cutouts | 16 |
| Components and Accessories | 17-18 |
| Assembly | 19 |

KPT Solder Contacts GENERAL PURPOSE CONNECTOR

Qualified to MIL-C-26482. Recommended for military and commercial applications requiring solder contacts. Shell finish is conductive chromate over cadmium; resilient insulators.

KPTM Crimp Contacts GENERAL PURPOSE CONNECTOR FOR COMMERCIAL APPLICATIONS

General purpose connector with crimp snap-in contacts in DUAL SHORE® insulator. Recommended for commercial applications not requiring MIL-SPEC approval. Features closed-entry socket contacts, inter-facial sealing; conductive chromate finish over cadmium snell. Intermateable, intermountable and interchangeable with all MIL-C-26482 connectors.

KPSE Crimp Contacts HIGH PERFORMANCE ENVIRONMENT- RESISTANT CONNECTOR

Environment-resistant high performance, crimp connector qualified to MIL-C-26482. Shell finish is conductive chromate over cadmium. Contacts are crimp, snap-in, front release. Recommended for general applications requiring a crimp, environmental, MIL-SPEC approved connector.

| Standard Materials and Finishes | KPT | KPTM | KPSE |
|---------------------------------|---|-----------------|-----------------|
| SHELL | aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 | | |
| INSULATOR | polychloroprene | polychloroprene | polychloroprene |
| GROMMET AND SEAL | polychloroprene | polychloroprene | polychloroprene |
| CONTACTS | Copper alloy, gold plate per MIL-G-45204 type II | | |
| TEMPERATURE RANGE | -55°C to +125°C | | |

Mechanical Data

| | | |
|-----------------------|--|---|
| SHELL STYLES | 00 — wall mounting receptacle 01 — cable connecting plug 02 — box mounting receptacle 06 — straight plug | 07 — jam nut receptacle 08 — 90° angle plug B — thru-bulkhead receptacle (KPT only) |
| SHELL SIZES | KPT/KPTM 8 thru 24; KPSE 10 thru 24 | |
| POLARIZATION/COUPLING | five keyway/three point bayonet | |
| SERVICE CLASSES | A — general duty B — general duty with strain relief E — grommet seal F — grommet seal with strain relief | J — gland nut with strain relief for jacketed cable P — potted |

Electrical Data

| | | | | | |
|---------------------------|-------------------------------|---------------------------|--------------|----------------|--------------------|
| CONTACT TERMINATION | solder (KPT) | crimp snap-in (KPSE/KPTM) | | | |
| NUMBER OF CONTACTS | KPT/KPTM 2 thru 61 | KPSE 3 thru 61 | | | |
| WIRE SIZE, AWG | KPT/KPTM 12 thru 24 | KPSE 16 thru 24 | | | |
| WIRE RANGE ACCOMMODATIONS | INSULATION O.D. LIMITS (INCH) | | | | |
| | CONTACT SIZE | AWG WIRE SIZE | MIN. KPT | MIN. KPTM/KPSE | MAX. KPT/KPTM/KPSE |
| | 20 | 24, 22 and 20 | .060 (1.52) | .047 (1.19) | .083 (2.11) |
| | 16 | 20, 18 and 16 | .066 (1.68) | .066 (1.68) | .109 (2.77) |
| | 12 | 14 and 12 | .097 (2.46) | — | .142 (3.61) |
| CONTACT RATING | CONTACT SIZE | RATED AMPS | TEST CURRENT | MILLIVOLT DROP | |
| | 20 | 7.5 | 7.5 | less than 55 | |
| | 16 | 22.0 | 13.0 | less than 50 | |
| SERVICE RATING | TEST VOLT. | SERVICE | AC (rms) | DC | |
| | Sea Level | 1 | 1500 | 2100 | |
| | | 2 | 2300 | 3200 | |
| | 70,000 ft. | 1 | 375 | 535 | |
| | | 2 | 550 | 770 | |
| MAXIMUM OPERATING VOLTAGE | Sea Level | 1 | 600 | 850 | |
| | | 2 | 1000 | 1275 | |

Shown below are the most commonly used modification codes for KPT/KPTM/KPSE connectors. For complete ordering information please refer to their respective sections in this catalog. For other special finishes or configurations please consult the factory.

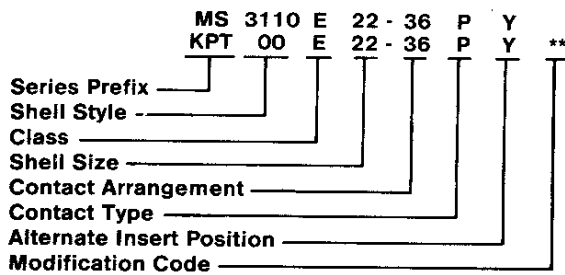
- FO less contacts, not marked on connectors (KPTM/KPSE only)
- 05 black anodized hardware
- 07 clear chromate over cadmium
- 16 lanyard release-plugs only

- General purpose
- Closed-entry socket contacts
- Solder termination

KPT connectors are a series of general-purpose, environment-resistant, miniature circular connectors, qualified for use in military applications. These connectors are also widely used in industrial applications

calling for quick-disconnect connectors with fixed contacts for solder termination.

The KPT series is interchangeable and intermountable with all MIL-C-26482 connectors, whether solder or crimp type and is available with many materials, finishes and configurations.



SERIES PREFIX

KPT — ITT Cannon prefix
MS — MIL-C-26482 prefix

SHELL STYLE

Cannon Designator:

- 00 — wall mounting receptacle
- 01 — cable connecting plug
- 02 — box mounting receptacle (Class E only)
- *03 — wall mounting receptacle without grommet, ferrule, and endbell
- *04 — cable connector plug without grommet, ferrule, endbell
- *05 — straight plug without grommet, ferrule, endbell
- 06 — straight plug
- 07 — jam nut receptacle (available in hermetic version also)
- 08 — 90° angle plug
- *09 — wall mounting plug (Class A only)
- B — thru-bulkhead receptacle (Class E only)

*consult factory for details

MS Designation:

- 3110 — wall mounting receptacle
- 3111 — cable connecting plug
- 3112 — box mounting receptacle (Class E only)
- 3114 — jam nut receptacle
- 3116 — straight plug
- 3119 — thru-bulkhead receptacle (Class E only)

CLASS

- A — general duty (not MS approved)
- B — general duty with strain relief without grommet & ferrules (not MS approved)
- E — grommet seal except on 02/3112 (MS specification)
- F — grommet seal with strain relief (MS specification)
- J — water tight gland seal with strain relief for jacketed cable (MS specification)
- P — potted (MS specification)

SHELL SIZE

8, 10, 12, 14, 16, 18, 20, 22 and 24

CONTACT ARRANGEMENT

See contact arrangements pages 8-9

CONTACT TYPE

P — pin; S — socket

ALTERNATE INSERT POSITION

W, X, Y and Z. (Omit for normal.)

MODIFICATION CODE

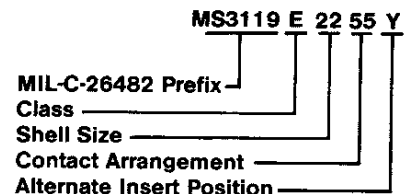
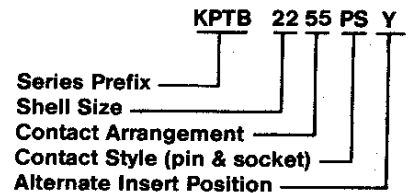
Omit first (O) of shell style indication when using modification code. See page 3 for modification codes.

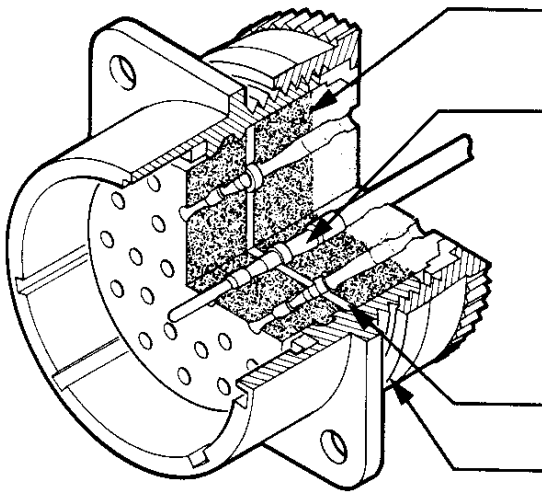
- General purpose
- Double ended pin and socket contacts
- Contains KPT socket insert
- Nonremovable contacts

KPTB connectors are a series of general purpose, miniature circular connectors, qualified for use in military applications. They are also widely used in industrial applications. The KPTB in a thru-bulkhead version with double faced pin and socket insert construction allowing mating from ends. They contain KPT socket inserts with feedthru

(pin/socket) nonremovable contacts.

The thru-bulkhead receptacle is provided for applications requiring the disconnection of a power source from either side of a panel. A typical connector to be used if air leakage requirements are critical.





DUAL-SHORE® INSULATOR is integrally molded polychloroprene with a firm front section and a soft resilient rear section that provides a moistureproof seal around each wire. A hard plastic web is molded within the firm front section to prevent over-insertion of the contacts. This construction eliminates the moisture trap characteristic of other types of insulators.

CRIMP, SNAP-IN CONTACTS are to MIL-C-39029 specifications and can be crimped with the standard M22520/1 crimp tool. They are especially suited to quick and easy field service by unskilled personnel.

SPLIT SLEEVE SOCKET CONTACTS increase socket contact area, provide smooth insertion and prolong connector life.

CLOSED-ENTRY SOCKETS eliminate damage from abuse by test probes and automatically correct misaligned pins. Lead-in chamfers around the socket assures proper mating even with up to .060" misalignment or splay of mating pins.

INTERFACIAL SEALING is assured by raised barriers around each pin contact that compress into the lead-in chamfers at each socket contact. This method provides such a positive seal around each pair of mated contacts that, if several contacts are removed from the insert, there will be no leakage to the remaining contacts when the connector is immersed in water.

POSITIVE STOP, a tough thermoplastic web molded into the DUAL-SHORE insulator, prevents over-insertion of contacts by providing a close-fitting seat for the shoulder of each pin or socket.

HARDWARE is aluminum alloy, finished to QQ-P-416, and conforms to MIL-C-26482. Five key polarization assures correct hardware engagement, and three-point bayonet lock provides quick connect/disconnect. To aid further in sealing, a peripheral neoprene ring is mounted in the receptacle and is compressed by the plug barrel while engaged.

- Unique DUAL-SHORE® insulator
- Crimp snap-in contacts
- Closed-entry split sleeve socket contacts
- Interfacial sealing
- Positive stop to prevent over-insertion of contacts

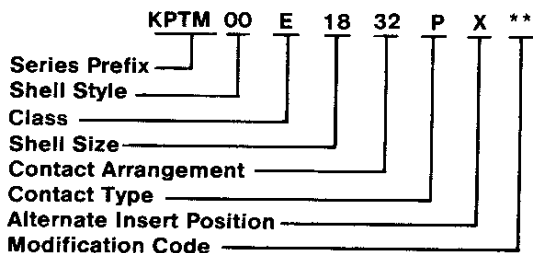
KPTM connectors are recommended for applications which require an extremely reliable, environment-resistant connector designed for economy, efficiency and simplicity, but not requiring MIL-SPEC

qualifications. The KPTM is a version of the KPT with a DUAL-SHORE insulator and M39029 crimp snap-in contacts. The DUAL-SHORE insulator is a simple, compact unit with no retaining clips or rings to move or obstruct, and no glued joints to loosen or serve as moisture entry paths.

Interfacial sealing is assured by raised barriers around each pin contact cavity that compress into the lead-in chamfers at each socket contact cavity when mated, providing such a

positive seal there will be no leakage when the connector is immersed in water even if several contacts are removed.

KPTM connectors are interchangeable, intermountable and interchangeable with all MIL-C-26482 connectors. In fact, they utilize the same crimp, removable (MIL-C-39029) contacts as used in the MIL-qualified KPSE series, thus allowing the user to standardize on one contact for use in both the qualified MS (KPSE) series and the KPTM series.



SERIES PREFIX

KPTM — ITT Cannon prefix

SHELL STYLE

- 00 — wall mounting receptacle
- 01 — cable connecting plug
- 02 — box mounting receptacle
- *03 — wall mounting receptacle less ferrule and endbell

- *04 — cable connector plug less ferrule and endbell
- *05 — straight plug less ferrule and endbell
- 06 — straight plug
- 07 — jam nut receptacle
- 08 — 90° angle plug
- *09 — wall mounting plug (Class A only)

SERVICE TYPE

- A — general duty
- B — general duty with strain relief without ferrules and seal grommet
- E — grommet seal
- F — grommet seal with strain relief
- J — watertight gland seal with strain relief for jacketed cable
- P — potted

SHELL SIZE

8, 10, 12, 14, 16, 18, 20, 22 and 24

CONTACT ARRANGEMENT

See contact arrangements pages 8-9

CONTACT TYPE

- P — pin
 - S — socket
- See COMPONENTS/ACCESSORIES page for contact part numbers.

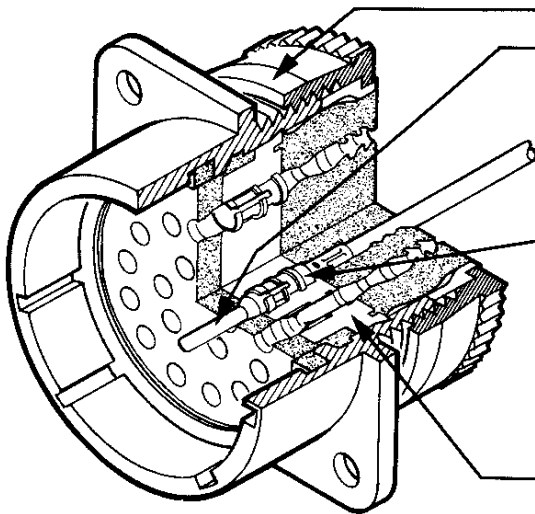
ALTERNATE INSERT POSITION

W, X, Y and Z. (Omit for normal.)

MODIFICATION CODE

Omit first (O) of shell style indication when using modification code. See page 3 for modification codes.

*Consult factory for details.



STANDARD MIL-C-26482 HARDWARE mates with any connectors designed to MIL-C-26482.

CRIMP, SNAP-IN CONTACTS are designed to MIL-C-39029 and can be crimped with the standard M22520/1 crimp tool.

CLOSED-ENTRY SOCKET CONTACTS eliminate damage from abuse by test probes and help to correct any misaligned pins during engagement.

CONTACT INSERTION is accomplished from the rear of the connector. When the contact is fully inserted, the clip tines snap securely behind the contact shoulder.

CONTACT EXTRACTION is accomplished with a front-inserted extraction tool. Pressing the tool plunger pushes the contact out thru the rear of the connector.

CONTACT RETAINING CLIP is completely encased in a tough plastic wafer to protect the clip from damage.

COMPLETE MOISTURE SEALING is achieved by combining four seals: shell, peripheral, interfacial and wire seals.

SHELL SEAL is effected when the plug shell pushes against the sealing ring in the receptacle when the connectors are mated.

PERIPHERAL SEAL around the edge of the pin insulator is designed so that mating the connector puts tension on the seal and greatly reduces compression set.

INTERFACIAL SEAL is achieved by the insulator faces meeting when the plug and receptacle are mated.

WIRE SEAL is accomplished by a multiple ripple design, exceeding the wire sealing requirements of MIL-C-26482.

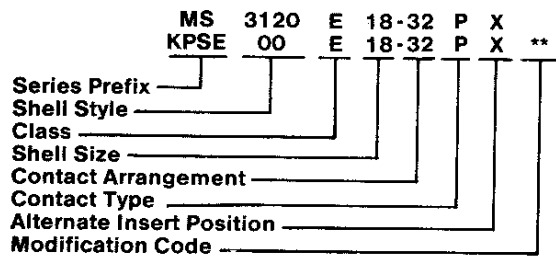
POSITIVE INSERT-TO-SHELL MECHANICAL RETENTION with hard plastic wafer firmly locked into a groove in the shell, in addition to a strong adhesive bond between the insert and shell.

- Environment-resistant
- Voidless integrally molded insulator
- Front-release, crimp snap-in contacts
- Closed entry socket contacts
- 4 moisture seals for complete sealing
- Contact clip protected in hard dielectric
- Positive insert-to-shell mechanical retention

KPSE environment-resistant, miniature circular, quick disconnect connectors, qualified to MIL-C-26482, are designed for the exacting requirements of today's electronic industry. The KPSE features an insulator which is mechanically retained in the shell by a positive, hard plastic-to-metal lock retention augmented by a reliable adhesive bond. Complete moisture sealing is achieved by four seals; shell, peripheral, interfacial and wire seals.

Crimp snap-in contacts are retained in clips that are completely encased in a tough hard dielectric wafer, thus protecting the clip tines from damage. Closed-entry socket contacts facilitate positive mating.

The KPSE series is interchangeable, intermountable and interchangeable with all MIL-C-26482 connectors, whether crimp or solder type, and is available with many materials, finishes and configurations.



- SERIES PREFIX**
 KPSE — ITT Cannon prefix
 MS — MIL-C-26482 prefix
- SHELL STYLE**
 Cannon Designator:
 00 — wall mounting receptacle
 01 — cable connecting plug
 02 — box mounting receptacle (without wire seals)
- *03 — wall mounting receptacle without ferrule and endbell
 *04 — cable connector plug without ferrule and endbell

- *05 — straight plug without ferrule and endbell
 06 — straight plug
 07 — jam nut receptacle (available in hermetic version also)
 08 — 90° angle plug
 *09 — wall mounting plug (Class A only)
- MS Designation:**
 3120 — wall mounting receptacle
 3121 — cable connecting plug
 3122 — box mounting receptacle
 3124 — jam nut receptacle
 3126 — straight plug

* Consult factory for details.

- CLASS**
 A — general duty (not MS approved)
 B — general duty with strain relief without grommet & ferrule (not MS approved)
 E — grommet seal (MS specification)
 F — grommet seal with strain relief (MS specification)
 J — gland seal with strain relief for jacketed cable (not MS approved)
 P — potted (MS specification)
- SHELL SIZE**
 8, 10, 12, 14, 16, 18, 20, 22 and 24
- CONTACT ARRANGEMENT**
 See contact arrangements pages 8-9
- CONTACT TYPE**
 P — pin; S — socket
 See COMPONENTS/ACCESSORIES page for contact part numbers.
- ALTERNATE INSERT POSITION**
 W, X, Y and Z. (Omit for normal.)
- MODIFICATION CODE**
 Omit first (O) of shell style indication when using modification code. See page 3 for modification codes.

The following excerpts are some of the parameter requirements of the MIL-C-26482 specification.

| TEST DESCRIPTION | PARAGRAPH REFERENCE | REQUIREMENTS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------|---|----------------|------|------|----------------|---------------------|----|------------|------|------|------------|------|------|---|---|---|----|----|---|----|----|---|----|----|---|----|----|---|----|----|---|----|----|---|----|----|---|----|----|---|--|
| Contact Retention | 4.6.32.1 | After preloading to 3 pounds maximum, the force shall be applied at a rate of approximately 1 pound per second and maintained at full load for 5-10 seconds. No damage to contacts or insert shall result nor shall the contacts be dislocated from their normal position in the connector more than 0.012 inch under giveload for KPSE and within 1 minute after the load is removed for KPT. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>Contact Size</th> <th>20</th> <th>16</th> <th>12</th> </tr> </thead> <tbody> <tr> <td>Load in Pounds Min.</td> <td>15</td> <td>25</td> <td>25</td> </tr> </tbody> </table> | Contact Size | 20 | 16 | 12 | Load in Pounds Min. | 15 | 25 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contact Size | 20 | 16 | 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Load in Pounds Min. | 15 | 25 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contact Insertion/Extraction (KPSE Only) | 4.6.11 | When using the proper insertion and extraction tools the forces required to insert or extract the contact shall not exceed 20 lbs. Connectors shall be less endbell. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coupling Torque | 4.6.3 | For qualification testing, mating halves shall be coupled and uncoupled, measuring the torques necessary. The torques required to couple and uncouple mating connector halves shall fall within the limits specified as follows: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th colspan="3">Torque lb./in.</th> <th colspan="3">Torque lb./in.</th> </tr> <tr> <th>Shell Size</th> <th>Max.</th> <th>Min.</th> <th>Shell Size</th> <th>Max.</th> <th>Min.</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>8</td> <td>1</td> <td>18</td> <td>28</td> <td>4</td> </tr> <tr> <td>10</td> <td>12</td> <td>1</td> <td>20</td> <td>32</td> <td>6</td> </tr> <tr> <td>12</td> <td>16</td> <td>2</td> <td>22</td> <td>36</td> <td>7</td> </tr> <tr> <td>14</td> <td>20</td> <td>4</td> <td>24</td> <td>44</td> <td>7</td> </tr> <tr> <td>16</td> <td>24</td> <td>4</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | Torque lb./in. | | | Torque lb./in. | | | Shell Size | Max. | Min. | Shell Size | Max. | Min. | 8 | 8 | 1 | 18 | 28 | 4 | 10 | 12 | 1 | 20 | 32 | 6 | 12 | 16 | 2 | 22 | 36 | 7 | 14 | 20 | 4 | 24 | 44 | 7 | 16 | 24 | 4 | |
| Torque lb./in. | | | Torque lb./in. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shell Size | Max. | Min. | Shell Size | Max. | Min. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 8 | 1 | 18 | 28 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 12 | 1 | 20 | 32 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 16 | 2 | 22 | 36 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 20 | 4 | 24 | 44 | 7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 24 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Durability | 4.6.17 | Connector halves shall be mated and unmated 500 times at a rate of 200 ± 100 cycles per hour. The test may be performed by hand or by mechanical means, but the coupling ring shall be operated as in normal service. Failure to complete this test because of mechanical malfunction shall be cause for rejection. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Insert Retention | 4.6.29 | Connectors with the endbells and grommets (if possible) removed shall be subjected to a 75 psi load on the insulator in both directions. The load shall be applied at a rate of 10lb/sec. and held for 5 to 10 secs. Insulators shall not be dislodged from there original position. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Insulation Resistance | 4.6.7.1 | On unmated connectors at 25°C ±3°C a potential of 500 VDC±10% shall be applied between all, but not more than 6, pairs of adjacent contacts and between all, but not more than 8, contacts and the shell. Failure to meet a minimum requirement of 5,000 megohms shall be cause for rejection. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration | 4.6.21 | Wired, mated connectors shall be subjected to the vibration test of MIL-STD-1344, Method 2005, Test Condition II. Receptacles shall be mounted on the vibration fixture by normal means. All contacts shall be wired in a series circuit and 100 max. milliamperes of current shall be allowed to flow through the series circuit during vibration. Suitable means shall be employed to monitor the current flow and to indicate any discontinuity of more than 10 microsecond. The wire bundle shall be clamped to nonvibrating points at least 8 inches from the rear of the connector. Current discontinuity of 10 microsecond or more, disengagement of the mated connectors, evidence of cracking, breaking, or loosening of parts shall be cause for rejection. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shock | 4.6.23 | Wired, mated connectors shall be subjected to one shock in each direction in each of three mutually perpendicular axes. The pulse shall be approximate half sine wave of 50g ±15% magnitude with a duration of 11 ±1 milliseconds. Receptacles shall be mounted on a shock fixture by normal means. All contacts shall be wired in a series circuit and 90-110 ma. of current shall flow through the series circuit during shock. Suitable means shall be employed to monitor the current flow and to indicate any discontinuity of more than 10 microsecond. Current discontinuity of 10 microsecond or more, disengagement of the mated connectors, evidence of cracking, breaking, or loosening of parts shall be cause for rejection. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thermal Shock | 4.6.12 | Wired, unmated plug and receptacle shall be subjected to 5 cycles of hot and cold temperatures. Maximum temperature shall be +125°C and the minimum shall be -55°C. Duration at each temperature extreme shall be ½ hour minimum. Cracking, breaking or loosening of parts shall be cause for rejection. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Humidity | 4.6.25 | The connectors shall be subjected to varying humidity, 50% to 95%, conditions for a period of 10 days KPSE or 20 days KPT. The insulation resistance shall not be less than 100 megohms. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Air Leakage (KPT Only) | 4.6.15.1 | A 30 psi pressure differential shall be applied across the connector for 30 minutes. The leak rate, in either direction, shall be no greater than 1 atmosphere cubic inch per hour (4.55 x 10 ⁻³ cm ³ /S) at -67°F (-55°C). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salt Spray (Corrosion) | 4.6.19 | Unmated and wired connectors shall be subject to a salt fog for 48 hours. These shall be no exposure of base metal, the connector shall be functional and meet the contact resistance requirement. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluid Immersion | 4.6.27 | At least one connector, unmated and wired, shall be immersed in each fluid for a period of 20 hours then dried at room conditions for hour. Connectors shall be able to mate and meet the coupling torque requirements. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | a) Hydraulic Fluid per MIL-H-5606 b) Lubricating Oil per MIL-L-7808 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Legend

- ▲ KPT
- KPTM
- ◆ KPSE

△ Authorized per MIL-C-26482 (NAVY)

Drawing not to scale;
face view of pin insert shown
(socket view is opposite)

| | | | | | |
|--|--------------|-------------------|-------------------|-------------------|--------------|
| No. of Contacts and Contact Size Service | | | | | |
| | ▲ △ | ▲ △ | ▲ △ | ● ▲ △ | |
| | 8-2 | 8-3 | 8-4 | 8-33 | |
| | 2-#20 1 | 3-#20 1 | 4-#20 1 | 3-#20 1 | |
| No. of Contacts and Contact Size Service | | | | | |
| | ▲ ● ◆ △ | ▲ ● △ | ▲ ● ◆ △ | ▲ ● △ | ▲ ● ◆ △ |
| | 10-6 | 10-98 | 12-3 | 12-8 | 12-10 |
| | 6-#20 1 | 6-#20 1 | 3-#16 2 | 8-#20 1 | 10-#20 1 |
| | | | | | |
| No. of Contacts and Contact Size Service | | | | | |
| | ▲ ● ◆ △ | ▲ ● ◆ △ | ▲ ● ◆ △ | ▲ ● △ | ▲ ● ◆ △ |
| | 14-5 | 14-12 | 14-15 | 14-18 | 14-19 |
| | 5-#16 2 | 8-#20 4-#16 1 | 14-#20 1-#16 1 | 18-#20 1 | 19-#20 1 |
| | | | | | |
| No. of Contacts and Contact Size Service | | | | | |
| | ▲ ● ◆ △ | ▲ ● △ | ▲ ● ◆ △ | ▲ ● ● | |
| | 16-8 | 16-23 | 16-26 | 16-99 | |
| | 8-#16 2 | 22-#20 1-#16 1 | 26-#20 1 | 21-#20 2-#16 1 | |
| No. of Contacts and Contact Size Service | | | | | |
| | ▲ ● ◆ △ | ▲ | ▲ ● △ | ▲ ● ◆ △ | |
| | 18-11 | 18A28 | 18-30 | 18-32 | |
| | 11-#16 2 | 26-#20 2-#16 1 | 29-#20 1-#16 1 | 32-#20 1 | |
| No. of Contacts and Contact Size Service | | | | | |
| | ▲ ● ◆ △ | ▲ △ | ▲ ● ◆ △ | ▲ ● ◆ △ | |
| | 20-16 | 20-24 | 20-39 | 20-41 | |
| | 16-#16 2 | 24-#20 1 | 37-#20 2-#16 1 | 41-#20 1 | |