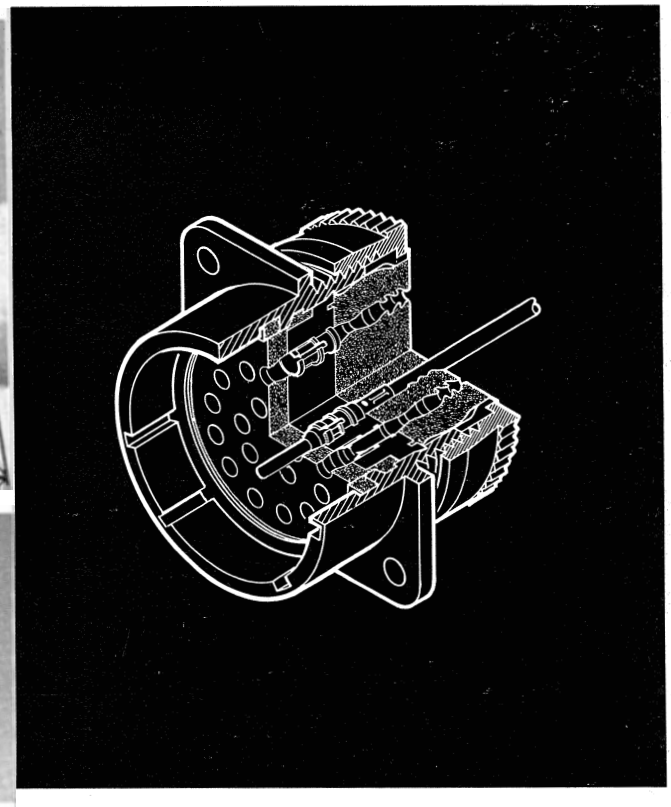
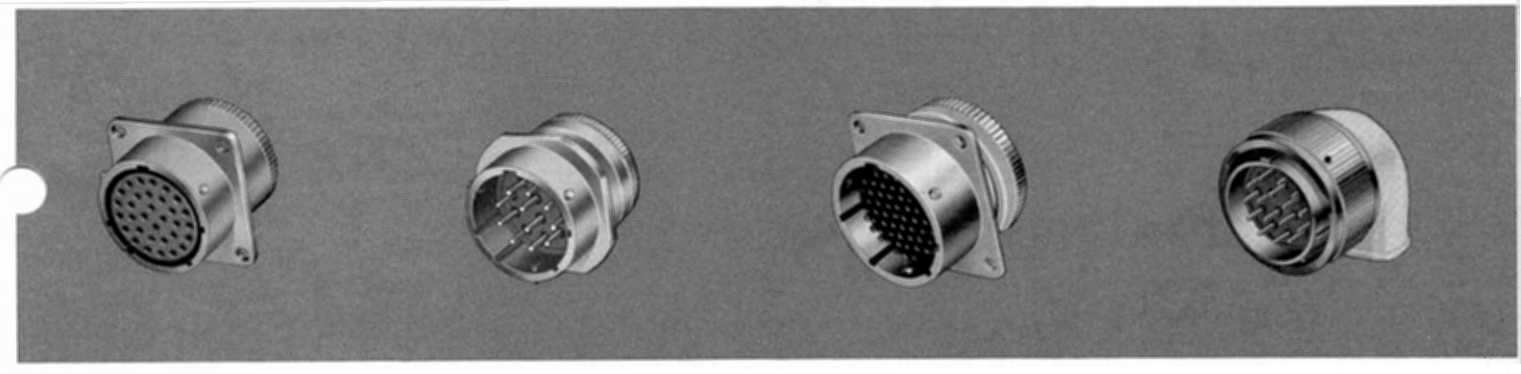




Miniature Circular Connectors

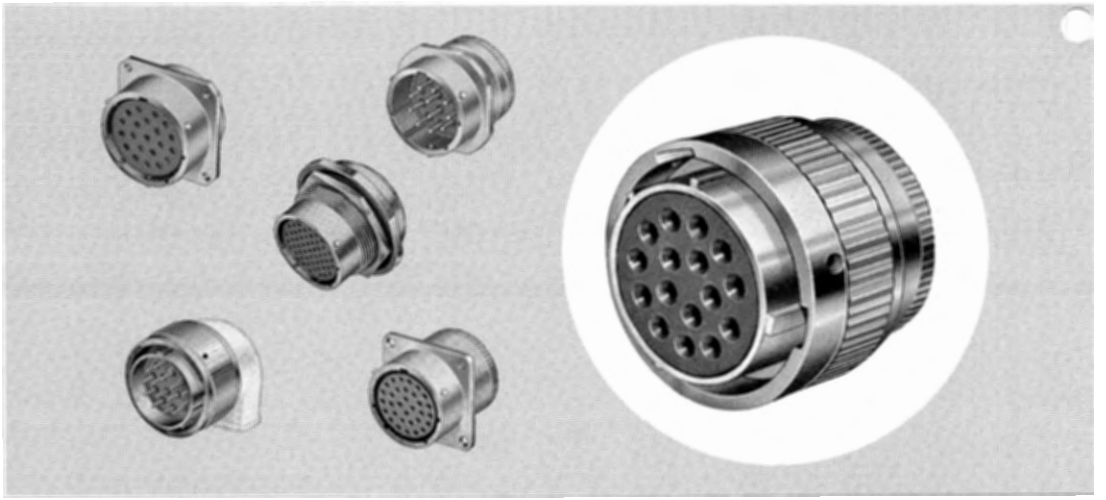
Bayonet Type, Designed to MIL-C-26482

KPT/KSP/KPTM/KSPM/KPSE/KSSE/KPTH

SOURCE
Type 851

ITT CANNON ELECTRIC
3208 HUMBOLDT ST., LOS ANGELES, CALIF. 90031
A DIVISION OF INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

KPT/KSP Series



KPT/KSP
General Purpose, Solder Contact Connectors

KPT CONNECTORS
- general purpose
- closed-entry socket contacts
- solder termination

KSP CONNECTORS
- hard, black anodize Alumilite, non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPT general purpose miniature circular connectors are widely used in commercial, industrial and deep-space applications. Utilizing solder terminated contacts, KPT connectors feature closed-entry sockets for positive mating.

KSP connectors are identical to KPT connectors except for a hard anodic, non-conductive finish. Receptacles have a larger flange with #6 mounting holes for rear panel mounting.

KPT and KSP connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

KPT 2 E 22 - 36 P W **
MS 3110 E 22 - 36 P Y

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPT, KSP — ITT Cannon prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon number:
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle (Class E only)
06 — straight plug
07 — jam nut receptacle (available in hermetic version also)
08 — 90° angle plug
B — thru-bulkhead receptacle (Class E only)

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
B — general duty with strain relief (may be used for potting when strain relief is desired)
E — grommet seal except on 02 and 3112 (MS specification)
F — grommet seal with strain relief (MS specification)
G — gland seal for jacketed cable
J — 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 pages 10 and 11.

CONTACT TYPE
P — pin; S — socket

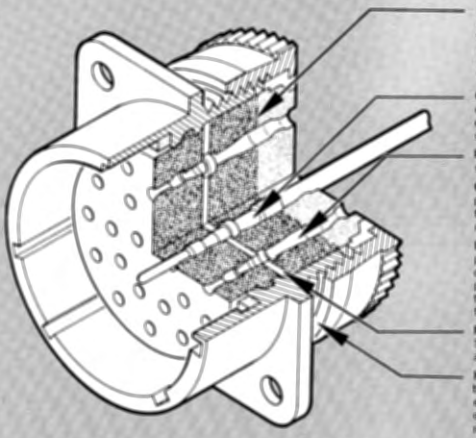
ALTERNATE INSERT POSITION
W, X, Y and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.

CONTENTS

Quick Selector Chart

SERIES	DESCRIPTION	PAGE
KPT/KSP	**General Purpose, Solder Contact Connector** KPT — General purpose connector with solder pot contacts, resilient insulator, and conductive olive drab over chromate shell finish. KSP — Same as KPT, but with hard anodic, non-conductive finish. Receptacles have a large flange with #6 mtg. holes for rear panel mounting.	4
KPTM/KSPM	**General Purpose, Crimp Contact Connector** KPTM — General purpose connector with crimp snap-in contacts in DUAL-SHORE® insulator. Features closed-entry socket contacts and interfacial sealing. Shell finish is conductive olive drab over chromate. KSPM — Same as KPTM, but with hard anodic, non-conductive finish. Receptacles have a large flange with #6 mtg. holes for rear panel mounting.	5
KPSE/KSSE	**High Performance, Crimp Contact Connector** KPSE — Environment-resistant, high performance connector with front-release, crimp snap-in contacts in an integrally molded insulator. Shell finish is conductive olive drab over chromate. KSSE — Same as KPSE, but with hard anodic, non-conductive finish. Receptacles have a large flange with #6 mtg. holes for rear panel mounting.	6
KPTH	**Hermetically Sealed, Solder Contact Connectors** KPTH — Hermetically sealed KPT receptacles with pin contacts in lead-free compression glass web. Leak rate not in excess of .001 micron cu. ft./hr. Contacts and shells are steel with electrodeposited tin over cadmium finish.	7



DUAL-SHORE INSULATOR is integrally molded polychloroprene with a firm (80 shore) front section and a resilient (50 shore) rear section that provides a moistureproof seal around each wire. A hard plastic web is molded within the 80 shore section to prevent over-insertion of the contacts. This construction eliminates the moisture traps characteristic of other types of insulators.

CRIMP, SNAP-IN CONTACTS are to MIL-C-23216 specification and can be crimped with the standard MS3191 crimp tool. They are especially suited to quick and easy field service by unskilled personnel.

BOWSPRING CONTACTS increase pin/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 permit 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.

KPTM/KSPM
General Purpose, Crimp Contact Connectors

KPTM CONNECTORS
- unique DUAL-SHORE insulator
- crimp snap-in contacts
- closed-entry BOWSPRING™ socket contacts
- interfacial sealing
- positive stop to prevent over-insertion of contacts

KSPM CONNECTORS
- hard, black anodize Alumilite, non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPTM connectors offer reliability with efficiency and simplicity. The KPTM is a version of the KPT with a DUAL-SHORE insulator and crimp snap-in contacts. High reliability is achieved by using a minimum number of components in the insulator assembly. 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. A tough thermoplastic web molded into the insulator prevents over-insertion of contacts. Closed-entry socket contacts assure positive alignment.

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

KSPM connectors are identical to KPTM connectors except for a hard, black anodize Alumilite, non-conductive finish. Receptacles also have a larger flange with #6 mounting holes for rear panel mounting.

KPTM and KSPM connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

KSPM 2 E 22A41 S X 16
KPTM 00 E 18-32 P X

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Service Type
- Shell Style
- Series Prefix

SERIES PREFIX
KPTM, KSPM, — ITT Cannon prefix

SHELL STYLE
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle
06 — straight plug
07 — jam nut receptacle
08 — 90° angle plug

SERVICE TYPE
A — general duty
B — general duty with strain relief
E — grommet seal
F — grommet seal with strain relief
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable
P — potted

SHELL SIZE
Outside diameter of mating portion of shell in 1/16" increments.

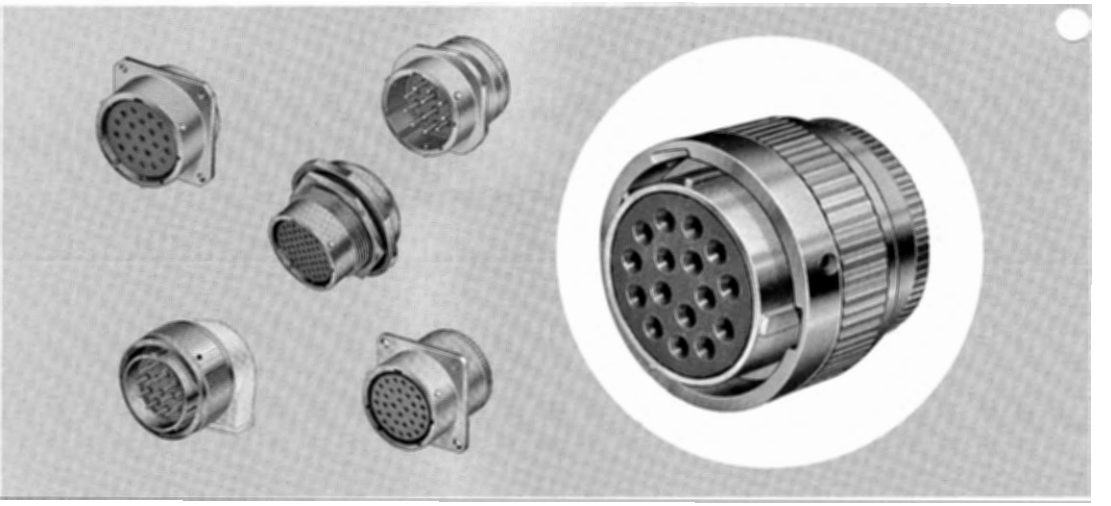
CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin
S — socket

ALTERNATE INSERTION POSITION
W, X, Y, and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.

KPT/KSP Series



KPT/KSP
General Purpose, Solder Contact Connectors

KPT CONNECTORS
- general purpose
- closed-entry socket contacts
- solder termination

KSP CONNECTORS
- hard, black anodize Alumilite, non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPT general purpose miniature circular connectors are widely used in commercial, industrial and deep-space applications. Utilizing solder terminated contacts, KPT connectors feature closed-entry sockets for positive mating.

KSP connectors are identical to KPT connectors except for a hard anodic, non-conductive finish. Receptacles have a larger flange with #6 mounting holes for rear panel mounting.

KPT and KSP connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

KPT 2 E 22 - 36 P W **
MS 3110 E 22 - 36 P Y

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPT, KSP — ITT Cannon prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon number:
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle (Class E only)
06 — straight plug
07 — jam nut receptacle (available in hermetic version also)
08 — 90° angle plug
B — thru-bulkhead receptacle (Class E only)

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
B — general duty with strain relief (may be used for potting when strain relief is desired)
E — grommet seal except on 02 and 3112 (MS specification)
F — grommet seal with strain relief (MS specification)
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable (MS specification)
P — potted (MS specification)

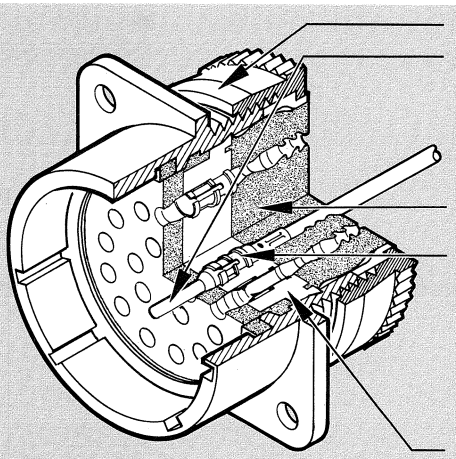
SHELL SIZE
8, 10, 12, 14, 16, 18, 20, 22, and 24

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin; S — socket

ALTERNATE INSERT POSITION
W, X, Y and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.



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

CRIMP, SNAP-IN CONTACTS are designed to MIL-C-23216 and can be crimped with the standard MS3191 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.

UNIQUE INTEGRALLY-MOLDED INSULATOR eliminates separate bonding operations to form a single voidless part with no moisture traps or interface voids.

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.

KPSE/KSSE
High Performance, Crimp Contact Connectors

KPSE CONNECTORS

- 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

KSSE CONNECTORS

- hard, black anodize Alumilite non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPSE environment-resistant miniature circular connectors are designed for the exacting requirements of space and missile applications. The KPSE features a unique unitized insulator, integrally molded into a single voidless part. This insulator is mechanically retained in the shell by a positive, hard plastic-to-metal lock retention. 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.

KSSE connectors are identical to KPSE connectors except for a hard, black anodize Alumilite non-conductive finish. Receptacles have a larger flange with #6 mounting holes for rear panel mounting.

KPSE and KSSE connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

KSSE 00 E 18-32 P X
KPSE 0 E 18-32 P X 05
MS 3120 E 18-32 P X

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPSE, KSSE, – ITT Cannon Prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon Number:
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle
06 — straight plug
07 — jam nut receptacle
08 — 90° angle plug

MS Designation:
3120 — wall mounting receptacle
3121 — cable connecting plug
3122 — box mounting receptacle
3124 — jam nut receptacle
3126 — straight plug

CLASS
A — general duty
B — general duty with strain relief
E — grommet seal (MS specification)
F — grommet seal with strain relief (MS specification)
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable
P — potted (MS specification)

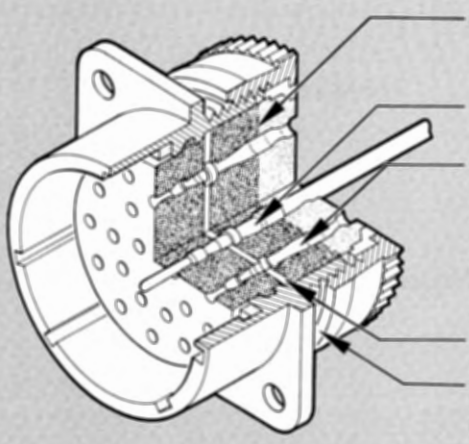
SHELL SIZE
8, 10, 12, 14, 16, 18, 20, 22, and 24

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin
S — socket

ALTERNATE INSERT POSITION
W, X, Y, and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.



DUAL-SHORE INSULATOR is integrally molded polychloroprene with a firm (80 shore) front section and a resilient (50 shore) rear section that provides a moistureproof seal around each wire. A hard plastic web is molded within the 80 shore section to prevent over-insertion of the contacts. This construction eliminates the moisture traps characteristic of other types of insulators.

CRIMP, SNAP-IN CONTACTS are to MIL-C-23216 specification and can be crimped with the standard M83191 crimp tool. They are especially suited to quick and easy field service by unskilled personnel.

BOWSPRING CONTACTS increase pin/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 permit 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.

KPTM/KSPM
General Purpose, Crimp Contact Connectors

KPTM CONNECTORS
- unique DUAL-SHORE insulator
- crimp snap-in contacts
- closed-entry BOWSPRING™ socket contacts
- interfacial sealing
- positive stop to prevent over-insertion of contacts

KSPM CONNECTORS
- hard, black anodize Alumilite, non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPTM connectors offer reliability with efficiency and simplicity. The KPTM is a version of the KPT with a DUAL-SHORE insulator and crimp snap-in contacts. High reliability is achieved by using a minimum number of components in the insulator assembly. 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. A tough thermoplastic web molded into the insulator prevents over-insertion of contacts. Closed-entry socket contacts assure positive alignment.

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

KSPM connectors are identical to KPTM connectors except for a hard, black anodize Alumilite, non-conductive finish. Receptacles also have a larger flange with #6 mounting holes for rear panel mounting.

KPTM and KSPM connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

KSPM 2 E 22A41 S X 16
KPTM 00 E 18-32 P X

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Service Type
- Shell Style
- Series Prefix

SERIES PREFIX
KPTM, KSPM, — ITT Cannon prefix

SHELL STYLE
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle
06 — straight plug
07 — jam nut receptacle
08 — 90° angle plug

SERVICE TYPE
A — general duty
B — general duty with strain relief
E — grommet seal
F — grommet seal with strain relief
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable
P — potted

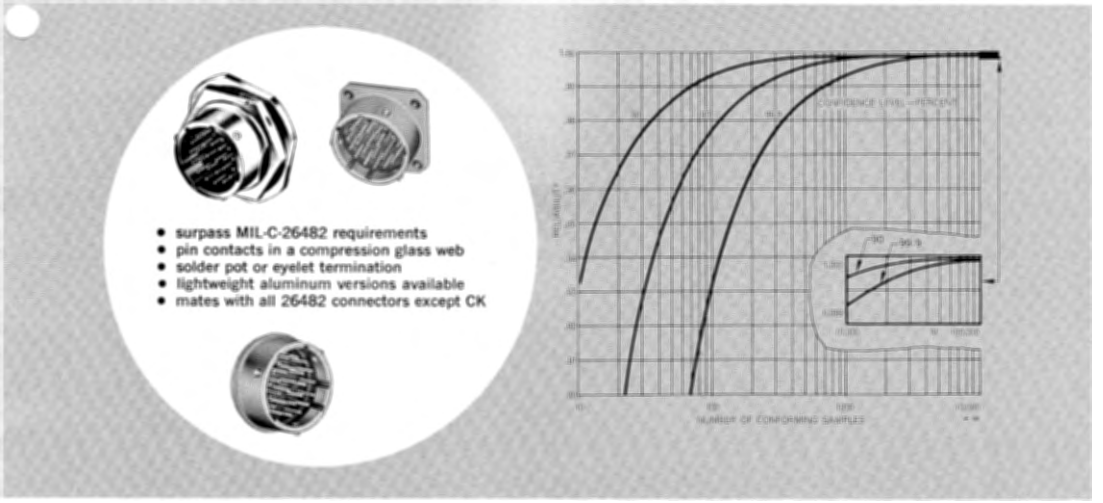
SHELL SIZE
Outside diameter of mating portion of shell in 1/16" increments.

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin
S — socket

ALTERNATE INSERTION POSITION
W, X, Y, and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.



KPTH
Hermetically Sealed, Solder Contact Connectors

Hermetically sealed KPT receptacles fulfill the high reliability requirements of space age applications and environments. Far surpassing the requirements of MIL-C-26482, these receptacles have proven statistically reliable in leakage tests 100 times as severe as required by MIL-C-26482 with a reliability of .9995 at a confidence level of 95% with these results:

- Leak rate not in excess of .001 micron cu. ft./hr.
- 100 psi differential causes no detectable leakage in excess of .001 cu. ft./hr.
- 100 g shock with no loss of hermeticity
- Thermal shock from −70° to +200°C without affecting leakage rate

These receptacles are available with pin contacts only in three shell styles: a box mounting receptacle, KPT02H; a solder mounting receptacle, KPTIH; and a jam nut receptacle, KPT07H. Contact arrangements are tooled in a full lead-free compression glass web.

ORDERING NUMBER INFORMATION

KPT	I	H	8-32	P	N	*
MS	3113	H	8-32	P	X	

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPT — ITT Cannon Prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon number:
02 — box mounting receptacle
I — solder mounting receptacle
07 — jam nut receptacle
MS Designation:
3113 — solder mounting receptacle
3114 — jam nut receptacle

CLASS
H — hermetic seal (MS specification applies to KPTIH and KPT07H only)

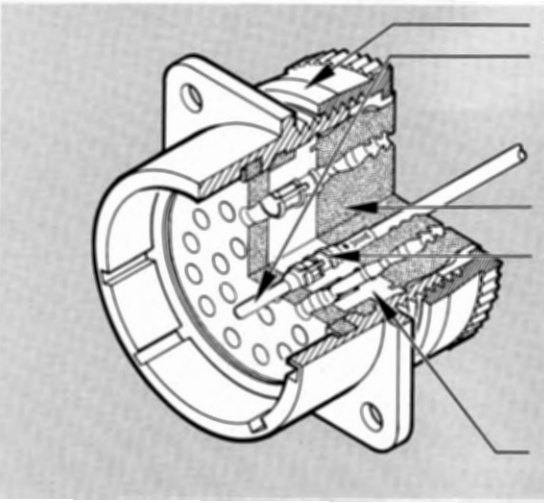
SHELL SIZE
8, 10, 12, 14, 16, 18, 20, 22, and 24

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin

ALTERNATE INSERT POSITION
N (normal), W, X, Y, and Z

MODIFICATION CODE
Consult factory. See page 8 for modification codes.



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

CRIMP, SNAP-IN CONTACTS are designed to MIL-C-23216 and can be crimped with the standard MS3191 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.

UNIQUE INTEGRALLY-MOLDED INSULATOR eliminates separate bonding operations to form a single voidless part with no moisture traps or interface voids.

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.

KPSE/KSSE
High Performance, Crimp Contact Connectors

KPSE CONNECTORS
- 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

KSSE CONNECTORS
- hard, black anodize Alumilite non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPSE environment-resistant miniature circular connectors are designed for the exacting requirements of space and missile applications. The KPSE features a unique unitized insulator, integrally molded into a single voidless part. This insulator is mechanically retained in the shell by a positive, hard plastic-to-metal lock retention. 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.

KSSE connectors are identical to KPSE connectors except for a hard, black anodize Alumilite non-conductive finish. Receptacles have a larger flange with #6 mounting holes for rear panel mounting.

KPSE and KSSE connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

```
KSSE 00    E 18-32 P X
KPSE 0     E 18-32 P X 05
MS   3120  E 18-32 P X
```

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPSE, KSSE, — ITT Cannon Prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon Number:
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle
06 — straight plug
07 — jam nut receptacle
08 — 90° angle plug

MS Designation:
3120 — wall mounting receptacle
3121 — cable connecting plug
3122 — box mounting receptacle
3124 — jam nut receptacle
3126 — straight plug

CLASS
A — general duty
B — general duty with strain relief
E — grommet seal (MS specification)
F — grommet seal with strain relief (MS specification)
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable
P — potted (MS specification)

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

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin
S — socket

ALTERNATE INSERT POSITION
W, X, Y, and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.

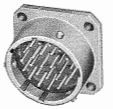
MODIFICATION CODES

Preferred Modification Code	Description	Intended Usage
A106	Clean chromate coating over cadmium per QQ-P-416, type II, Class 3	Commercial, decorative hardware finish
A105	Gold over copper per FS-4456, Class A, and per MIL-G-45204, type 2 Class 2 over .00005 min. copper per MIL-C-14550	High reliability finish for contacts
F0	Connectors less contacts (contacts purchased separately)	Applicable to all crimp removable connectors (KPTM, KPSE, KSPM, KSSE)

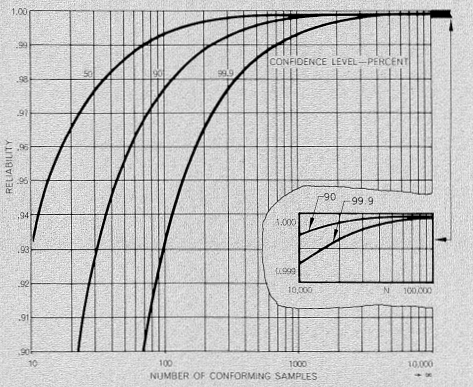
STANDARD DATA

Standard Materials and Finishes	KPT/KSP	KPTM/KSPM
SHELL	KPT/KPTM — aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 KSP/KSPM — aluminum alloy, black non-conductive Alumilite finish	
INSULATOR	KPT/KSP — 80 shore gray polychloroprene	80 shore green polychloroprene
GROMMET AND SEAL	50 shore gray polychloroprene	50 shore green polychloroprene
CONTACTS	Copper alloy, gold over silver plate per MIL-G-45204 type II, Class 1	
Mechanical Features		
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	8 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	G — gland nut for jacketed cable J — gland nut with strain relief for jacketed cable P — potted
Electrical Data		
NUMBER OF CONTACTS	2 thru 61	3 thru 61
WIRE SIZE, AWG	16 thru 24	16 thru 24
CONTACT TERMINATION	solder	crimp snap-in
CONTACT RATING	SIZE: 20 — RATED AMPS: 7.5 — TEST CURRENT: 7.5 SIZE: 16 — RATED AMPS: 22.0 — TEST CURRENT: 13.0	
SERVICE RATING	TEST VOLT. — SERVICE — AC (rms) — DC Sea Level — 1 — 1500 — 2100 Sea Level — 2 — 2300 — 3200 70,000 ft. — 1 — 375 — 535 70,000 ft. — 2 — 550 — 770	
COAXIAL CONTACTS	———	RG-55/U, RG-59/U, RG-62/U, RG-195/U, and RG-223/U

Standard Materials and Finishes	KPSE/KSSE	KPTH
SHELL	KPSE — aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 KSSE — aluminum alloy, black non-ductive alumilite finish	steel, electrodeposited tin over cadmium
INSULATOR	60 shore green polychloroprene	compression glass
GROMMET AND SEAL	60 shore green polychloroprene	———
CONTACTS	copper alloy, gold over silver plate	steel, electrodeposited tin over cadmium
Mechanical Features		
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	1 — solder mounting receptacle 02 — box mounting receptacle 07 — jam nut receptacle
SHELL SIZES	10 thru 24	8 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 G — gland nut for jacketed cable J — gland nut with strain relief for jacketed cable P — potted	N — hermetic
Electrical Data		
NUMBER OF CONTACTS	3 thru 61	2 thru 61
WIRE SIZE, AWG	16 thru 24	———
CONTACT TERMINATION	crimp snap-in	solder
CONTACT RATING	CONTACT SIZE — MILLIVOLT DROP 20 — less than 55 16 — less than 50	SIZE — RATED AMPS — TEST CURRENT — MV DROP 20 — 7.5 — 5.0 — 70 16 — 22.0 — 13.0 — 75
SERVICE RATING	MAXIMUM OPERATING VOLTAGE — SERVICE — AC (rms) — DC Sea Level — 1 — 600 — 850 Sea Level — 2 — 1000 — 1275	TEST VOLT — SERVICE — AC (rms) — DC Sea Level — 1 — 1500 — 2100 Sea Level — 2 — 2300 — 3200



- surpass MIL-C-26482 requirements
- pin contacts in a compression glass web
- solder pot or eyelet termination
- lightweight aluminum versions available
- mates with all 26482 connectors except CK



KPTH

Hermetically Sealed, Solder Contact Connectors

Hermetically sealed KPT receptacles fulfill the high reliability requirements of space age applications and environments. Far surpassing the requirements of MIL-C-26482, these receptacles have proven statistically reliable in leakage tests 100 times as severe as required by MIL-C-26482 with a reliability of .9995 at a confidence level of 95% with these results:

- Leak rate not in excess of .001 micron cu. ft./hr.
- 100 psi differential causes no detectable leakage in excess of .001 cu. ft./hr.
- 100 g shock with no loss of hermeticity
- Thermal shock from −70° to +200°C without affecting leakage rate

These receptacles are available with pin contacts only in three shell styles: a box mounting receptacle, KPT02H; a solder mounting receptacle, KPTIH; and a jam nut receptacle, KPT07H. Contact arrangements are tooled in a full lead-free compression glass web.

ORDERING NUMBER INFORMATION

KPT	I	H	8-32	P	N	*
MS	3113	H	8-32	P	X	

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPT — ITT Cannon Prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon number:
02 — box mounting receptacle
I — solder mounting receptacle
07 — jam nut receptacle
MS Designation:
3113 — solder mounting receptacle
3114 — jam nut receptacle

CLASS
H — hermetic seal (MS specification applies to KPTIH and KPT07H only)

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

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin

ALTERNATE INSERT POSITION
N (normal), W, X, Y, and Z

MODIFICATION CODE
Consult factory. See page 8 for modification codes.

MODIFICATION CODES

Preferred Modification Code	Description	Intended Usage
A106	Clean chromate coating over cadmium per QQ-P-416, type II, Class 3	Commercial, decorative hardware finish
A105	Gold over copper per FS-4456, Class A, and per MIL-G-45204, type 2 Class 2 over .00005 min. copper per MIL-C-14550	High reliability finish for contacts
F0	Connectors less contacts (contacts purchased separately)	Applicable to all crimp removable connectors (KPTM, KPSE, KSPM, KSSE)

STANDARD DATA

Standard Materials and Finishes	KPT/KSP	KPTM/KSPM
SHELL	KPT/KPTM — aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 KSP/KSPM — aluminum alloy, black non-conductive Alumilite finish	
INSULATOR	KPT/KSP — 80 shore gray polychloroprene	80 shore green polychloroprene
GROMMET AND SEAL	50 shore gray polychloroprene	50 shore green polychloroprene
CONTACTS	Copper alloy, gold over silver plate per MIL-G-45204 type II, Class I	
Mechanical Features		
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	8 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 G — gland nut for jacketed cable J — gland nut with strain relief for jacketed cable P — potted	
Electrical Data		
NUMBER OF CONTACTS	2 thru 61	3 thru 61
WIRE SIZE, AWG	16 thru 24	16 thru 24
CONTACT TERMINATION	solder	crimp snap-in
CONTACT RATING	SIZE: 20 — RATED AMPS: 7.5 — TEST CURRENT: 7.5 SIZE: 16 — RATED AMPS: 22.0 — TEST CURRENT: 13.0	
SERVICE RATING	Sea Level, SERVICE 1: AC (rms) 1500, DC 2100 Sea Level, SERVICE 2: AC (rms) 2300, DC 3200 70,000 ft., SERVICE 1: AC (rms) 375, DC 515 70,000 ft., SERVICE 2: AC (rms) 550, DC 770	
COAXIAL CONTACTS	———	RG-55/U, RG-59/U, RG-62/U, RG-195/U, and RG-223/U

Standard Materials and Finishes	KPSE/KSSE	KPTH
SHELL	KPSE — aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 KSSE — aluminum alloy, black non-ductile alumilite finish	steel, electrodeposited tin over cadmium
INSULATOR	60 shore green polychloroprene	compression glass
GROMMET AND SEAL	60 shore green polychloroprene	———
CONTACTS	copper alloy, gold over silver plate	steel, electrodeposited tin over cadmium
Mechanical Features		
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	1 — solder mounting receptacle 02 — box mounting receptacle 07 — jam nut receptacle
SHELL SIZES	10 thru 24	8 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 G — gland nut for jacketed cable J — gland nut with strain relief for jacketed cable P — potted	H — hermetic
Electrical Data		
NUMBER OF CONTACTS	3 thru 61	2 thru 61
WIRE SIZE, AWG	16 thru 24	———
CONTACT TERMINATION	crimp snap-in	solder

CONTACT SIZE	MILLIVOLT DROP
20	less than 55
16	less than 50

SIZE	RATED AMPS	TEST CURRENT	MV DROP
20	7.5	5.0	70
16	22.0	13.0	75

MAXIMUM OPERATING VOLTAGE	SERVICE	AC (rms)	DC
Sea Level	1	600	850
	2	1000	1275

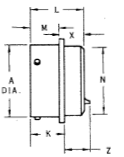
TEST VOLT	SERVICE	AC (rms)	DC
Sea Level	1	1500	2100
	2	2300	3200

KPT/KPTM/KPSE Series

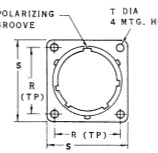
BOX MOUNTING RECEPTACLES

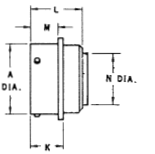
KPT02/KSP02/MS3112
KPT02/KSPM02
KPSE02/KSSE02/MS3122

RECEPTACLE ASSEMBLY



SOLDER
KPT02/KSP02/MS3112





CRIMP
KPTM02/KSPM02
KPSE02/KSSE02

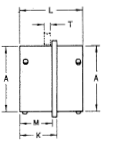
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

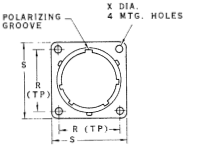
Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE A Dia. ±.003	L Max.	N Dia. Max.	KPT/KPTM/KPSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KPT^ Z Max.	KSP/KSPM/KSSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KSP X Max.
▲8	.471	.832	.436	.530	.457	.594	.828	.120	.483	.524	.467	.734	1.057	.150	.542
10	.588	.832	.562	.530	.457	.719	.954	.120	.483	.524	.467	.812	1.135	.150	.542
12	.748	.832	.687	.530	.457	.812	1.047	.120	.483	.524	.467	.938	1.260	.150	.542
14	.873	.832	.812	.530	.457	.906	1.141	.120	.483	.524	.467	1.031	1.354	.150	.542
16	.998	.832	.936	.530	.457	.969	1.234	.120	.483	.524	.467	1.125	1.448	.150	.542
18	1.123	.832	1.061	.530	.457	1.062	1.328	.120	.483	.524	.467	1.203	1.526	.150	.542
20	1.248	.895	1.186	.650	.561	1.156	1.453	.120	.427	.650	.561	1.297	1.682	.150	.500
22	1.373	.895	1.311	.650	.561	1.250	1.578	.120	.427	.650	.561	1.375	1.760	.150	.500
24	1.498	.895	1.436	.683	.594	1.375	1.703	.147	.393	.683	.594	1.500	1.885	.150	.467

* See pages 4,5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
• (MMC) located within .005 of (TP).

THRU-BULKHEAD RECEPTACLES

KPTB/KSPB/MS3119





SOLDER
KPTB/KSPB/MS3119

RECEPTACLE ASSEMBLY

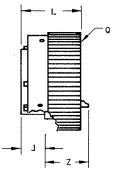
Shell Size*	A Dia. ±.003	KPTB/KSPB K ±.020	KPTB/KSPB L Max.	KPTB/KSPB M ±.010	KPTB/KSPB T Max.	KPTB R (TP)	KPTB S Max.	KPTB X ±.005	KSPB R (TP)	KSPB S Max.	KSPB X ±.005
8	.471	.634	1.125	.572	.188	.594	.828	.120	.734	1.057	.150
10	.588	.634	1.125	.572	.188	.719	.954	.120	.812	1.135	.150
12	.748	.634	1.125	.572	.188	.812	1.047	.120	.938	1.260	.150
14	.873	.634	1.125	.572	.188	.906	1.141	.120	1.031	1.354	.150
16	.998	.634	1.125	.572	.188	.969	1.234	.120	1.125	1.448	.150
18	1.123	.634	1.125	.572	.188	1.062	1.328	.120	1.203	1.526	.150
20	1.248	.792	1.255	.698	.312	1.156	1.453	.120	1.297	1.682	.150
22	1.373	.792	1.255	.698	.312	1.250	1.578	.120	1.375	1.760	.150
24	1.498	.792	1.255	.698	.312	1.375	1.703	.147	1.500	1.885	.150

* See page 4 for ordering number information.
•(MMC) located within .005 of (TP).

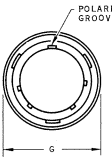
STRAIGHT PLUGS

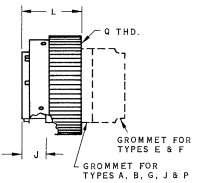
KPT06/KSP06/MS3116
KPTM06/KPSM06
KPSE06/KSSE06/MS3126

RECEPTACLE ASSEMBLY



SOLDER
KPT06/KSP06/MS3116



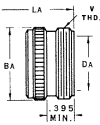


CRIMP
KPTM06/KSPM06
KPSE06/KSSE06/MS3126

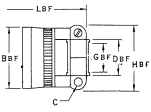
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	G Max.	J ±.005	KPT/KSP/KPTM/KSPM/KPSE/KSSE L Max.	Q Thread Class 2A	KPT/KSP Z Max.
*8	.730	.358	.844	7/16-28UNEF	.641
10	.850	.358	.844	9/16-24UNEF	.641
12	1.010	.358	.844	11/16-24UNEF	.641
14	1.130	.358	.844	13/16-20UNEF	.641
16	1.260	.358	.844	15/16-20UNEF	.641
18	1.380	.358	.844	1- 1/16-18UNEF	.641
20	1.510	.420	.969	1- 3/16-18UNEF	.584
22	1.630	.420	.969	1- 5/16-18UNEF	.584
24	1.760	.420	.969	1- 7/16-18UNEF	.584

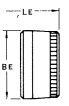
TERMINATION ASSEMBLIES



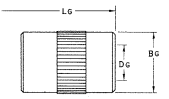
TYPE A



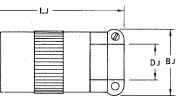
TYPE B AND F



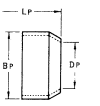
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE A BA Max.	DA Min.	LA Max.	V Thread Class 2A	TYPE B and F BBF Max.	C Thd.	DBF Min.	GBF Min.	HBF Max.	LBF Max.
*8	.590	.335	1.440	1/2-28UNEF	.552	6-32	.234	.115	.760	1.772
10	.717	.466	1.440	5/8-24UNEF	.677	6-32	.297	.178	.820	1.772
12	.834	.591	1.440	3/4-20UNEF	.802	6-32	.422	.302	.960	1.772
14	.970	.705	1.440	7/8-20UNEF	.927	6-32	.547	.365	1.070	1.772
16	1.088	.830	1.440	1 -20UNEF	1.052	6-32	.609	.490	1.135	1.892
18	1.216	.948	1.440	1-1/16-18UNEF	1.161	8-32	.740	.615	1.390	1.892
20	1.332	1.073	1.662	1-3/16-18UNEF	1.286	8-32	.740	.615	1.390	1.904
22	1.460	1.198	1.662	1-7/16-18UNEF	1.411	8-32	.928	.740	1.570	1.904
24	1.585	1.323	1.672	1-7/16-18UNEF	1.536	8-32	.984	.790	1.700	1.904

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE E BE Max.	LE Max.	TYPE G BG ±.005	DG Min.	DG Max.	LG Max.	TYPE J BJ Max.	DJ Min.	DJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
*8	.557	1.281	.592	.168	.230	1.720	.828	.168	.230	2.270	.602	.327	1.450
10	.677	1.281	.712	.205	.312	1.720	.891	.205	.312	2.270	.691	.444	1.450
12	.802	1.281	.851	.338	.442	1.860	1.016	.338	.442	2.410	.852	.558	1.450
14	.920	1.281	.995	.416	.539	2.050	1.141	.416	.539	2.600	.956	.683	1.450
16	1.045	1.281	1.080	.550	.616	2.270	1.203	.550	.616	2.880	1.088	.808	1.450
18	1.165	1.281	1.200	.600	.672	2.500	1.469	.600	.672	3.170	1.220	.909	1.450
20	1.290	1.294	1.325	.635	.747	2.900	1.469	.635	.747	3.510	1.349	1.034	1.600
22	1.415	1.294	1.450	.670	.846	3.055	1.656	.670	.846	3.670	1.481	1.159	1.600
24	1.540	1.294	1.575	.740	.894	3.190	1.750	.740	.894	3.800	1.593	1.284	1.600

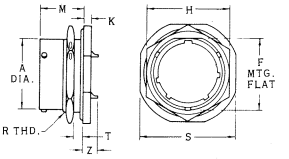
* See pages 4, 5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE

● (MMC) located within .005 of (TP).

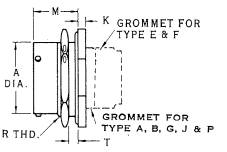
JAM NUT RECEPTACLES

KPT07/KSP07/MS3114
KPTM07/KSPM07
KPSE07/KSSE07/MS3124

RECEPTACLE ASSEMBLY



SOLDER
KPT07/KSP07/MS3114
TYPE A

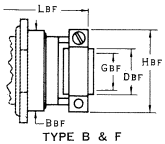


CRIMP
KPTM07/KSPM07
KPSE07/KSSE07/MS3124
TYPE A

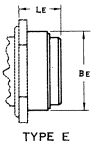
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE A ±.001	F ±.005	H ±.005	K ±.010	M ±.005	R Thread Class 2A	S ±.010	T Panel Thick. Min.	T Panel Thick. Max.	KPT/KSP Z Max.
*8	.671	.525	.750	.125	.696	9/16-24UNEF	.938	.062	.125	.312
10	.589	.650	.875	.125	.696	11/16-24UNEF	1.062	.062	.125	.312
12	.748	.813	1.062	.125	.696	7/8 -20UNEF	1.250	.062	.125	.312
14	.873	.937	1.188	.125	.696	1 -20UNEF	1.375	.062	.125	.312
16	.998	1.061	1.312	.125	.696	1- 1/8 -18UNEF	1.500	.062	.125	.312
18	1.123	1.186	1.438	.125	.696	1- 1/4 -18UNEF	1.625	.062	.125	.312
20	1.248	1.311	1.562	.156	.884	1- 3/8 -18UNEF	1.812	.062	.250	.187
22	1.373	1.436	1.688	.156	.884	1- 1/2 -18UNEF	1.938	.062	.250	.187
24	1.498	1.561	1.812	.156	.917	1- 5/8 -18UNEF	2.062	.062	.250	.150

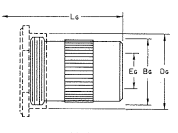
TERMINATION ASSEMBLIES



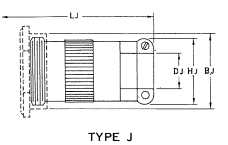
TYPE B & F



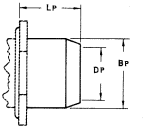
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE B and F BBF Max.	BBF Dia Min.	GBF Dia Min.	HBF Max.	LBF ±Max.	TYPE E BE Max.	LE Min.	TYPE G BG Max.	DG Max.	EG Min.	EG Max.	LG Max.	TYPE J BJ Max.	DJ Max.	HJ Min.	HJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
*8	.717	.234	.115	.760	1.766	.717	.638	.592	.717	.168	.230	1.750	.717	.230	.168	.760	2.250	.602	.327	.625
10	.843	.297	.178	.820	1.766	.843	.638	.712	.843	.205	.312	1.750	.843	.312	.205	.820	2.250	.691	.444	.625
12	.968	.422	.302	.953	1.766	.968	.638	.837	.968	.338	.442	1.890	.968	.442	.338	.960	2.390	.852	.558	.625
14	1.093	.547	.365	1.070	1.766	1.093	.638	.955	1.093	.416	.539	2.180	1.093	.539	.416	1.070	2.680	.956	.683	.625
16	1.218	.609	.490	1.130	1.906	1.218	.638	1.080	1.218	.550	.616	2.300	1.218	.616	.550	1.130	2.920	1.088	.808	.625
18	1.343	.740	.615	1.390	1.906	1.343	.638	1.200	1.343	.600	.672	2.770	1.343	.672	.600	1.390	3.390	1.220	.909	.625
20	1.500	.740	.615	1.390	1.980	1.500	.654	1.325	1.500	.635	.747	2.980	1.500	.747	.635	1.390	3.600	1.349	1.034	.746
22	1.625	.928	.740	1.568	1.980	1.625	.654	1.450	1.625	.670	.846	3.130	1.625	.846	.670	1.570	3.750	1.481	1.159	.746
24	1.750	.984	.790	1.700	1.980	1.750	.671	1.575	1.750	.740	.894	3.350	1.750	.894	.740	1.700	3.970	1.593	1.284	.716

* See pages 4, 5 and 6 for ordering number information.

* Not available in KPSE/KSSE

Dimensions subject to change

TEST DATA

Test Name and MIL-C-26482 Ref. Paragraph	KPT/KSP/KPTM/KSPM	KPSE/KSSE
MAINTENANCE AGING Para. 4.7.5	Engaging and disengaging torque (in./lbs.) limits were satisfactory within those specified for shell sizes involved.	
THERMAL SHOCK Para. 4.7.6	There was no evidence of cracking or other damage detrimental to connector operation after exposure to 5 cycles of temperature change from —55°C to +125°C, 1 hour per cycle, divided equally between temperature extremes.	
INSULATION RESISTANCE (elev. temp) Para. 4.7.3	While applying 500 VDC for 250 hours at 125°C, the insulation resistance was greater than 50 megohms between all adjacent contact pairs, shell, and its closest contacts. Insulation resistance was greater than 25 megohms at 105°C for 1000 hrs.	
DIELECTRIC WITHSTANDING VOLTAGE (sea level) Para. 4.7.4	There was no evidence of breakdown or flashover with 1500VAC applied for 1 min. between 6 pairs of adjacent contacts and between contacts closest to shell and shell for Service Rating 1 and 2300VAC applied in the same manner for Service Rating 2.	
DURABILITY Para 4.7.9	There was no evidence of mechanical or electrical damage to connectors after 500 engagements and disengagements as in service.	
VIBRATION Para. 4.7.11	With contacts wired in series and monitored for continuity, there was no mechanical damage and no electrical discontinuity greater than 10 microseconds. Connectors mounted and mated as in service and vibrated through a range of 10 cps to 2K cps for 20 min. in each of 3 mutually perpendicular axes at a double amplitude of 0.06", or 15g's max.	
SHOCK Para. 4.7.12	With contacts wired in series and monitored for continuity, there was no mechanical damage and no electrical discontinuity greater than 10 microseconds while the connector was subjected to an 11 millisecond, 50g mechanical shock in each of three major axes.	
INSULATION RESISTANCE (after vib. & shock) Para. 4.7.13	With 500VDC applied to mated connectors, insulation resistance was greater than 5,000 megohms between each pair of adjacent contacts and between shell and its closest contacts.	
MOISTURE RESISTANCE Para. 4.7.13.2	With 500VDC applied, insulation resistance between any two contacts or any contact and the shell was no less than 100 megohms while mated connectors were exposed to the following high humidity environment; 10 cycles, 24 hours each, in humidity chamber adjusted to cause condensation at prescribed intervals.	
SOLVENT IMMERSION Para. 4.7.14	Engaging and disengaging torques and dielectric withstanding voltages were within the limits previously indicated after unmated connectors had been immersed in aviation hydraulic fluid for 20 hours followed by 1 hour drying in free air.	
CONTACT RESISTANCE Para. 4.7.2	For size 16 contacts, minimum voltage drop was less than 50MV with a DC current for 13 amps flowing, and for size 20 contacts, the corresponding voltage drop was less than 50MV with a DC current of 7.5 amps flowing, in accordance with MIL-STD-202, Method 307.	
INSERT RETENTION Para. 4.7.15	Inserts within wired connectors (less grommets and endbells) did not dislodge when subjected to pressures of 75 psi on each insulator face for a period of 5 seconds.	
HIGH ALTITUDE IMMERSION (per MIL-C-26500B)	Wires and mated connectors immersed in 50% salt water solution. Pressure reduced to 6,000 ft. altitude (5.41 cm Hg.) and maintained for 30 minutes prior to measurement of insulation resistance while still immersed in salt solution. In no case was insulation resistance found to be less than 100 megohms.	Not applicable to KPSE.
CONTACT RETENTION (5 min. test) Para. 4.7.16	In no case did axial contact displacement exceed .012" after the application of a 5 lb. preload, followed by application of 15 lbs. and 25 lbs. axial load at engaging end of size 20 and 16 contacts respectively. Displacement is measured after a minimum of 5 seconds and while still under load. This test does not apply to KPTM connectors.	
SALT SPRAY MIL-STD-202B, Method 101A, Condition B	No damage or unacceptable increase in contact resistance after mated sample subjected to 48 hours of salt spray.	
AIR LEAKAGE	30 psi differential at —67°F (KPT only) — less than 1 atmosphere cubic inch per hour	
TEMPERATURE RANGE	—55°C to +125°C	
CONTACT INSERTION AND EXTRACTION	Insertion force does not exceed 20 lbs. Extraction force does not exceed 20 lbs.	

Shell Size	8	10	12	14	16	18	20	22	24
Engaging Torque (Max.)	8	12	16	20	24	28	32	36	44
Disengaging Torque (Max.)	1	1	2	4	4	5	6	7	7

Contact insertion forces measured on 20% of contacts, but not less than 3 contacts, of each connector for size 20 and size 16 contacts, do not exceed 20 lbs. at the ninth insertion.

CONTACT ARRANGEMENTS

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

2 Contacts

	8-2	12A3
	▲★□	▲
CONTACTS	2-#20	2-#16
SERVICE	1	

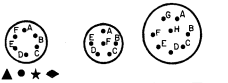
3 Contacts

	8-3	8-33	12-3
	▲★□	●▲★△	▲●★◆△□
CONTACTS	3-#20	3-#20	3-#16
SERVICE	1	1	2

4 Contacts 5 Contacts

	8-4	14-5
	★▲□	▲●★◆△□
CONTACTS	4-#20	5-#16
SERVICE	1	2

6 Contacts



	10-6	10-98	12-8
	▲●★◆ △□	▲●★	▲●★□
CONTACTS	6-#20	6-#20	8-#20
SERVICE	1	1	1

8 Contacts

	16-8	24A2	24A4	24A8	24A9
	▲●★◆△□	●	●	●	●
CONTACTS	8-#16	1-#20	1-#20	1-#20	1-#20
SERVICE	2	7-RG-195/U	7-RG-55/U	7-RG-59/U or -62/U	7-RG-223/U

10 Contacts

	12-10
	▲●★◆△□
CONTACTS	10-#20
SERVICE	1

11 Contacts

	18-11
	▲●★◆△□
CONTACTS	11-#16
SERVICE	2

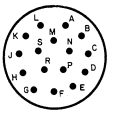
12 Contacts

	14-12
	▲●★◆△□
CONTACTS	8-#20 4-#16
SERVICE	1

15 Contacts

	14-15
	▲●★◆△□
CONTACTS	14-#20 1-#16
SERVICE	1

16 Contacts



	20-16
	▲●★◆△□
CONTACTS	16-#16
SERVICE	2

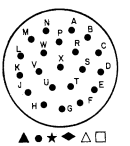
18 Contacts

	14-18
	▲●★□
CONTACTS	18-#20
SERVICE	1

19 Contacts

	14-19
	▲●★◆△□
CONTACTS	19-#20
SERVICE	1

21 Contacts

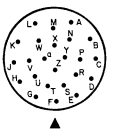


	22-21
	▲●★◆△□
CONTACTS	21-#16
SERVICE	2

23 Contacts

	16-23	16A99
	▲●□	▲●
CONTACTS	22-#20 1-#16	21-#20 2-#16
SERVICE	1	1

24 Contacts



	20-24
	▲
CONTACTS	24-#20
SERVICE	1

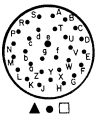
26 Contacts

	16-26
	▲●★◆△□
CONTACTS	26-#20
SERVICE	1

28 Contacts

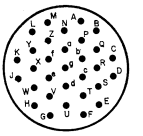
	18A28
	▲
CONTACTS	26-#20 2-#16
SERVICE	1

30 Contacts



	18-30
	▲● □
CONTACTS	29-#20 1-#16
SERVICE	1

31 Contacts



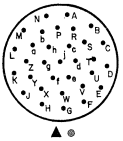
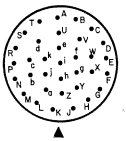
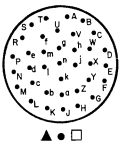
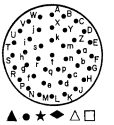
	24A31
	●
CONTACTS	31-#16
SERVICE	1

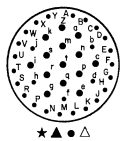
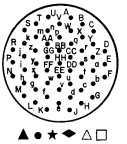
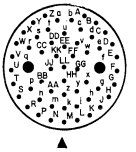
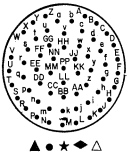
32 Contacts

	18-32
	▲●★◆△□
CONTACTS	32-#20
SERVICE	1

KPT/KPTM/KPSE/KPTH Series

CONTACT ARRANGEMENTS

32 Contacts	34 Contacts	36 Contacts	39 Contacts	41 Contacts	
					
▲ ◉	▲ ●	▲ ● □	▲ ● ◆ △ □	▲ ● ★ ◆ △ □	
22-32	**22-34**	**22-36**	**20-39**	**20-41**	
32-#20	34-#20	36-#20	37-#20 2-#16	41-#20	CONTACTS
1	1	1	1	1	SERVICE

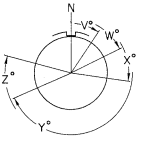
41 Contacts	55 Contacts	57 Contacts	61 Contacts	
				
★ ▲ ● △	▲ ● ★ ◆ △ □	▲	▲ ● ★ ◆ △	
22A41	**22-55**	**24A57**	**24-61**	
27-#20 14-#16	55-#20	55-#20 2-#12	61-#20	CONTACTS
1 (#20's); 2 (#16's)	1	1	1	SERVICE

LEGEND

- ▲ KPT/KSP
- ● KPTM/KSPM
- ★ KPTH (hermetic)
- ◆ KPSE/KSSE
- △ Authorized per MIL-C-26482 (NAVY)
- □ Authorized per SCL-6019 (SIGNAL CORPS)

NOTE: Red symbols indicate partial tooling. Consult factory for availability.

INSERT POSITION
(Face view of pin insert)



SHELL SIZE	NO. OF CONTACTS	ARR. NO.	DEGREES OF ROTATION V	W	X	Y	Z
8	2	8-2	—	58	122	—	—
	3	8-3	—	60	210	—	—
	3	8-33	—	90	—	—	—
	4	8-4	—	45	—	—	—
10	6	10-6	—	90	—	—	—
	6	10-98	—	90	180	240	270
12	2	12A3	—	—	—	—	—
	3	12-3	—	—	—	180	—
	8	12-8	—	90	112	203	292
	10	12-10	—	60	155	270	295
14	5	14-5	—	40	92	184	273
	12	14-12	—	43	90	—	—
	15	14-15	—	17	110	155	234
	18	14-18	—	15	90	180	270
	19	14-19	—	30	165	315	—
16	8	16-8	—	54	152	180	331
	23	16-23	—	158	270	—	—
	23	16A99	—	66	156	223	340
	26	16-26	—	60	—	275	338

ALTERNATE INSERT POSITIONS

The diagram at the left indicates alternate insert positions. The six positions (V, W, X, Y, Z and Normal) differ in degree of rotation for various sizes and arrangements. For the exact degree of rotation, and for the list of contact arrangements and alternate positions available, refer to the tabulation below.

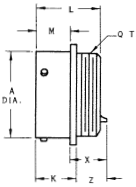
SHELL SIZE	NO. OF CONTACTS	ARR. NO.	DEGREES OF ROTATION V	W	X	Y	Z
18	11	18-11	—	62	119	241	340
	28	18A28	—	—	—	—	—
	30	18-30	—	180	193	285	350
	32	18-32	—	85	138	222	265
20	16	20-16	—	238	318	333	347
	24	20-24	—	70	145	215	290
	39	20-39	—	63	144	252	333
	41	20-41	—	45	126	225	—
22	21	22-21	—	16	135	175	349
	32	22-32	—	72	145	215	288
	34	22-34	—	62	142	218	298
	36	22-36	—	72	144	216	288
	41	22-41	—	39	73	149	196
	55	22-55	—	30	142	226	314
24	8	24A2	—	—	—	—	—
	8	24A4	—	—	—	—	—
	8	24A8	—	—	—	—	—
	8	24A9	—	—	—	—	—
	31	24A31	—	90	225	—	—
	57	24A57	—	90	180	270	324
	61	24-61	—	90	180	270	324

Red numbers indicate positions are not to MIL-C-26482

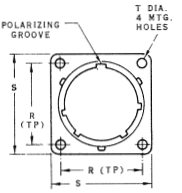
WALL MOUNTING RECEPTACLES

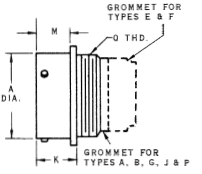
KPT00/KSP00/MS3110
KPTM00/KSPM00
KPSE00/KSSE00/MS3120

RECEPTACLE ASSEMBLY



SOLDER
KPT00/KSP00/MS3110



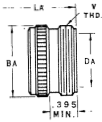


CRIMP
KPTM00/KSPM00
KPSE00/KSSE00/MS3120

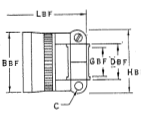
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KPTM/KSP/KSPM/KPSE/KSSE A ±.003	L Max.	Q Thread Class 2A	KPT/KPTM/KPSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KPT Z Max.	KSP/KSPM/KSSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KSP X Max.
*8	.471	.848	7/16-28UNEF	.530	.457	.594	.828	.120	.483	.524	.467	.734	1.057	.150	.542
10	.588	.848	9/16-24UNEF	.530	.457	.719	.954	.120	.483	.524	.467	.812	1.135	.150	.543
12	.748	.848	11/16-24UNEF	.530	.457	.812	1.047	.120	.483	.524	.467	.938	1.260	.150	.543
14	.873	.848	13/16-20UNEF	.530	.457	.906	1.141	.120	.483	.524	.467	1.031	1.354	.150	.543
16	.998	.848	15/16-20UNEF	.530	.457	.969	1.234	.120	.483	.524	.467	1.125	1.448	.150	.543
18	1.123	.848	1- 1/16-18UNEF	.530	.457	1.062	1.328	.120	.483	.524	.467	1.203	1.526	.150	.543
20	1.248	1.055	1- 3/16-18UNEF	.650	.561	1.156	1.453	.120	.427	.650	.561	1.297	1.682	.150	.508
22	1.373	1.055	1- 5/16-18UNEF	.650	.561	1.250	1.578	.120	.427	.650	.561	1.375	1.760	.150	.508
24	1.498	1.055	1- 7/16-18UNEF	.683	.594	1.375	1.703	.147	.393	.683	.594	1.500	1.885	.150	.467

TERMINATION ASSEMBLIES

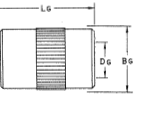


TYPE A

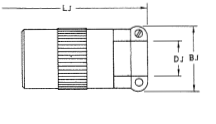


TYPE B AND F

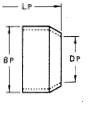
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE A BA Max.	DA Min.	LA Max.	V Thread Class 2A	TYPE B and F BBF Max.	C Thd.	DBF Min.	GBF Min.	HBF Max.	LBF Max.
*8	.590	.335	1.444	1/2-28UNEF	.552	6-32	.234	.115	.760	1.776
10	.717	.466	1.444	5/8-24UNEF	.677	6-32	.297	.178	.820	1.776
12	.834	.591	1.444	3/4-20UNEF	.802	6-32	.422	.302	.960	1.776
14	.970	.705	1.444	7/8-20UNEF	.927	6-32	.547	.365	1.070	1.776
16	1.098	.830	1.444	1 -20UNEF	1.052	6-32	.609	.490	1.130	1.896
18	1.216	.948	1.444	1-3/16-18UNEF	1.161	8-32	.740	.615	1.190	1.896
20	1.332	1.073	1.728	1-3/16-18UNEF	1.286	8-32	.740	.615	1.190	1.970
22	1.460	1.198	1.728	1-7/16-18UNEF	1.411	8-32	.928	.740	1.570	1.970
24	1.585	1.323	1.738	1-7/16-18UNEF	1.536	8-32	.984	.790	1.700	1.970

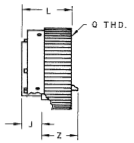
Shell Size*	TYPE E BE Max.	LE Max.	TYPE G BG Max.	DG Min.	DG Max.	LG Max.	TYPE J BJ Max.	DJ Min.	DJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
*8	.557	1.281	.592	.168	.230	1.720	.828	.168	.230	2.270	.602	.327	1.450
10	.677	1.281	.712	.205	.312	1.720	.891	.205	.312	2.270	.691	.444	1.450
12	.802	1.281	.837	.338	.442	1.860	1.016	.338	.442	2.410	.852	.558	1.450
14	.920	1.281	.995	.416	.539	2.050	1.141	.416	.639	2.600	.956	.683	1.450
16	1.045	1.281	1.080	.550	.616	2.270	1.203	.550	.616	2.880	1.088	.808	1.450
18	1.165	1.281	1.200	.600	.672	2.500	1.469	.600	.672	3.170	1.220	.909	1.450
20	1.290	1.360	1.325	.635	.747	2.960	1.469	.635	.747	3.610	1.349	1.034	1.660
22	1.415	1.360	1.450	.670	.846	3.320	1.656	.670	.846	3.760	1.461	1.159	1.660
24	1.540	1.360	1.575	.740	.894	3.750	1.750	.740	.894	3.900	1.593	1.284	1.730

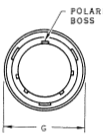
* See pages 4,5 and 6 for ordering number information.
• Not available in KPSE/KSSE.

● (MMC) located within .005 of (TP).

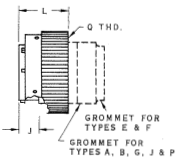
RIGHT ANGLE PLUGS

KPT08/KSP08
KPTM08/KSPM08
KPSE08/KSSE08





SOLDER
KPT08/KSP08



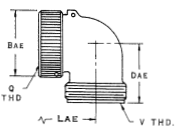
CRIMP
KPTM08/KSPM08
KPSE08/KSSE08

PLUG ASSEMBLY

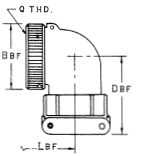
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE G Max.	J ±.005	L Max.	Q Thread Class 2A	KPT/KSP Z Max.
*8	.730	.358	.844	7/16-28UNEF	.641
10	.850	.358	.844	9/16-24UNEF	.641
12	1.010	.358	.844	11/16-24UNEF	.641
14	1.130	.358	.844	13/16-20UNEF	.641
16	1.260	.358	.844	15/16-20UNEF	.641
18	1.380	.358	.844	1- 1/16-18UNEF	.641
20	1.510	.420	.909	1- 3/16-18UNEF	.584
22	1.630	.420	.909	1- 5/16-18UNEF	.584
24	1.760	.420	.909	1- 7/16-18UNEF	.584

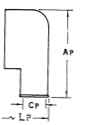
TERMINATION ASSEMBLIES



TYPE A and E



TYPE B AND F



TYPE P

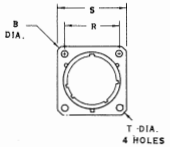
TERMINATION ASSEMBLIES

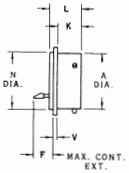
Shell Size*	TYPE A and E BAE Max.	LAE Max.	DAE Max.	V Thread Class 2A	TYPE B and F BBF Max.	DBF Max.	LBF Max.	TYPE P AP Max.	LP Max.	CP Min.
*8	.612	1.421	.872	1/2-28UNEF	.612	1.238	1.421	1.030	1.320	.252
10	.742	1.484	.853	5/8-24UNEF	.742	1.269	1.484	1.030	1.320	.252
12	.835	1.546	.916	3/4-20UNEF	.835	1.395	1.546	1.030	1.507	.252
14	.976	1.577	.978	7/8-20UNEF	.976	1.519	1.577	1.030	1.507	.283
16	1.090	1.609	1.041	1 -20UNEF	1.090	1.582	1.609	1.280	1.507	.355
18	1.235	1.734	1.103	1-3/16-18UNEF	1.235	1.644	1.734	1.280	1.695	.530
20	1.367	1.879	1.166	1-3/16-18UNEF	1.367	1.707	1.879	1.530	1.752	.562
22	1.452	2.035	1.245	1-7/16-18UNEF	1.452	1.884	2.035	1.530	1.752	.562
24	1.616	2.035	1.322	1-7/16-18UNEF	1.616	1.963	2.035	1.780	2.027	.610

* See pages 4, 5 and 6 for ordering number information.
* Not available in KPSE/KSSE

BOX MOUNTING RECEPTACLES

KPT02H





SOLDER
KPT02H

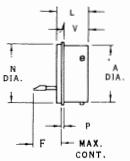
RECEPTACLE ASSEMBLY

Shell Size*	A +.001 −.005	B Dia.	F Max.	K	L	N +.001 −.005	R	S	T Dia.	V
8	.473	1.062	.344	.438	.546	.562	.594	.812	.120	.062
10	.590	1.250	.344	.438	.546	.672	.719	.938	.120	.062
12	.750	1.375	.344	.438	.546	.781	.812	1.031	.120	.062
14	.875	1.500	.344	.438	.546	.906	.906	1.125	.120	.062
16	1.000	1.625	.344	.438	.546	1.031	.969	1.219	.120	.062
18	1.125	1.750	.344	.438	.546	1.156	1.062	1.312	.120	.062
20	1.250	1.875	.344	.468	.608	1.250	1.156	1.438	.120	.094
22	1.375	2.000	.344	.468	.608	1.375	1.250	1.562	.120	.094
24	1.500	2.250	.320	.500	.673	1.500	1.375	1.687	.147	.094

* See page 7 for ordering number information.

SOLDER MOUNTING RECEPTACLES

KPTIH/MS3113H



SOLDER
KPTIH/MS3113H

RECEPTACLE ASSEMBLY

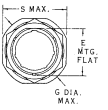
Shell Size*	A +.001 −.005	F Max.	L	N +.001 −.005	P	S Dia.	V
8	.473	.370	.546	.562	.031	.631	.421
10	.590	.370	.546	.672	.031	.756	.421
12	.750	.370	.546	.781	.031	.850	.421
14	.875	.370	.546	.906	.031	.975	.421
16	1.000	.370	.546	1.031	.031	1.100	.421
18	1.125	.370	.546	1.156	.031	1.224	.421
20	1.250	.370	.608	1.250	.031	1.318	.485
22	1.375	.370	.640	1.375	.031	1.444	.485
24	1.500	.340	.673	1.500	.031	1.569	.518

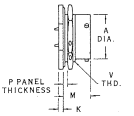
* See page 7 for ordering number information.

Dimensions subject to change

JAM NUT RECEPTACLES

KPT07H /MS3114H





SOLDER
KPT07H/MS3114H

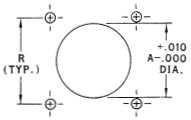
RECEPTACLE ASSEMBLY

Shell Size*	A ±.003	E ±.005	G Max.	K ±.001 −.016	M ±.015	P Min.	P Max.	S Max.	V
8	.471	.525	1.078	.094	.711	.062	.125	.954	9/16-24UNEF-2A
10	.588	.650	1.203	.094	.711	.062	.125	1.078	11/16-24UNEF-2A
12	.748	.813	1.391	.094	.711	.062	.125	1.266	7/8-20UNEF-2A
14	.873	.937	1.516	.094	.711	.062	.125	1.391	1-20UNEF-2A
16	.998	1.061	1.641	.094	.711	.062	.125	1.516	1-1/8-18UNEF-2A
18	1.123	1.186	1.766	.094	.711	.062	.125	1.641	1-1/4-18UNEF-2A
20	1.248	1.311	1.954	.125	.899	.062	.250	1.828	1-3/8-18UNEF-2A
22	1.373	1.436	2.078	.125	.899	.062	.250	1.954	1-1/2-18UNEF-2A
24	1.498	1.561	2.203	.125	.927	.062	.250	2.078	1-5/8-18UNEF-2A

* See page 7 for ordering number information.

Mounting Data

PANEL CUTOUTS



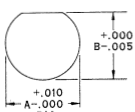
FLANGE MOUNTING RECEPTACLE

Shell Size	KPT/KPTM/KPSE A	KPT/KPTM/KPSE B	KSP/KSPM/KSSE A*	KSP/KSPM/KSSE B	KPT02H/KPT1H A	KPT02H/KPT1H B•
•8	.449	.594	.563	.724	.565	.594
10	.573	.719	.686	.812	.675	.714
12	.699	.812	.859	.938	.784	.812
14	.823	.906	.984	1.031	.909	.906
16	.949	.969	1.108	1.125	1.034	.969
18	1.073	1.062	1.233	1.203	1.159	1.062
20	1.199	1.156	1.358	1.297	1.253	1.156
22	1.323	1.250	1.483	1.375	1.378	1.250
24	1.449	1.375	1.610	1.500	1.503	1.375

▲ Not available in KPSE/KSSE connectors.
* Applicable for back mounting.
• Not used in KPT1H connectors.

MOUNTING HOLE DIAMETER

Shell Size	KPT/KPTM/KPSE ±.005	KPT/KPTM/KPSE SCREW	KSP/KSPM/KSSE ±.005	KSP/KSPM/KSSE SCREW	KPT02H ±.005	KPT02H SCREW
•18	.125	#4	.155	#6	.125	#4
10	.125	#4	.155	#6	.125	#4
12	.125	#4	.155	#6	.125	#4
14	.125	#4	.155	#6	.125	#4
16	.125	#4	.155	#6	.125	#4
18	.125	#4	.155	#6	.125	#4
20	.125	#4	.155	#6	.125	#4
22	.125	#4	.155	#6	.125	#4
24	.155	#6	.155	#6	.155	#6

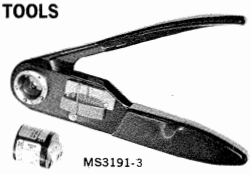


JAM NUT RECEPTACLE

Shell Size	KPT/KSP/KPTM/KSPM KPSE/KSSE A	KPT/KSP/KPTM/KSPM KPSE/KSSE B	KPT07H A	KPT07H B•
•8	.578	.542	.567	.531
10	.703	.669	.692	.656
12	.890	.830	.880	.819
14	1.015	.955	1.005	.943
16	1.140	1.084	1.130	1.067
18	1.265	1.208	1.255	1.192
20	1.390	1.333	1.380	1.317
22	1.515	1.459	1.505	1.442
24	1.640	1.584	1.630	1.567

▲ Not available in KPSE/KSSE connectors.
• B dimension tolerance for KPT07H is +.010/—.000.

CRIMP TOOLS



MS3191-3

Connector Series	TOOL
KPTM/KSPM KPSE/KSSE	MS3191-3* or CCT-2016-20

* With color-coded locators: red for #20, blue for #16 and yellow for #12.

INSERTION/EXTRACTION TOOLS

KPSE/KSSE Insertion

KPSE/KSSE Extraction

KPTM/KSPM Extraction

KPTM/KSPM

Contact Size	Insertion	Extraction
20 without insulation support	CIT-20-18	CET-20-4
20 with insulation support	CIT-20-5A	CET-20-4
16	CIT-16-1	CET-16-3A

KPSE/KSSE

Contact Size	Insertion MS	Extraction MS	Extraction ITT Cannon
20	MS24256A20	MS24256R20	CET-20-9A
16	MS24256A16	MS24256R16	CET-16-11A

CONTACTS

KPTM/KSPM
KPSE/KSSE

Size/Type	KPTM/KPSE MS	KSPM/KSSE ITT CANNON
20 socket	MS3193A20A	031-9074-002
20 pin	MS3192A20A	030-9036-000
16 socket	MS3193-16A	031-9095-003
16 pin	MS3192-16A	031-9032-003
12 socket	—	—
12 pin	—	—

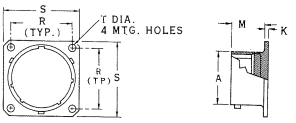
WIRE HOLE FILLERS/ GROMMET SEALING PLUGS

KPTM/KPSE

Contact Size	Color Code	KPTM/KSPM KPSE/KSSE
22	White	—
20	Red	MS3187A20
16	Blue	MS3187-16
12	Yellow	MS3187-12

Components and Accessories

DUMMY RECEPTACLES



ORDERING NUMBER

MS 3115 10 A
KPT 15 8 A

- Flange:
  - A — standard
  - B — large (not MS)
- Shell Size
- Dummy Receptacle
- Prefix

Shell Size TYPE A	Shell Size TYPE B	TYPE A and B: A ±.003	K ±.016	M ±.015 −.016	TYPE A — Std. Flange: R (TP)	S Max.	T Dia.	TYPE B — Large Flange: R (TP)	S Max.	T Dia.
°- 8A	- 8B	.471	.062	.478	.594	.828	.120	.734	1.063	.150
°-10A	-10B	.588	.062	.478	.719	.954	.120	.812	1.141	.150
°-12A	-12B	.748	.062	.478	.812	1.047	.120	.938	1.266	.150
°-14A	-14B	.873	.062	.478	.906	1.141	.120	1.031	1.360	.150
°-16A	-16B	.998	.062	.478	.969	1.234	.120	1.125	1.454	.150
°-18A	-18B	1.123	.062	.478	1.062	1.328	.120	1.203	1.532	.150
°-20A	-20B	1.248	.094	.572	1.156	1.453	.120	1.297	1.688	.150
°-22A	-22B	1.373	.094	.572	1.250	1.578	.120	1.375	1.766	.150
°-24A	-24B	1.498	.094	.605	1.375	1.703	.147	1.500	1.891	.150

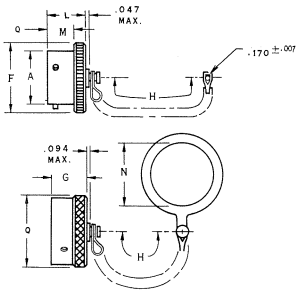
° Add prefix KPT15 or MS3115.

● MMC located within .005 of (TP).

PROTECTIVE CAPS

STANDARD MATERIALS AND FINISHES

	KPT/KPSE/MS	KSP/KSSE
Protective Cap	aluminum alloy, olive drab finish, per QQ-P-416	alumium alloy, hard black anodize Alumilite non-conductive finish
Bead Chain	brass, olive drab finish	brass, black nickel finish
Sash Chain	stainless steel	stainless steel
Ring/Rivet	stainless steel	stainless steel
Gasket	neoprene per MIL-STD-417	neoprene per MIL-STD-417



80—cap for plugs

81—cap for receptacles

ORDERING NUMBER

KPT 81 - 12 C ●
MS 3180 - 10

- Modification. Consult factory.
- Termination Style:
  - no letter — without chain
  - C — sash chain
  - B — bead chain
  - N — sash chain with ring (81 or 3181 only)
  - R — bead chain with ring
- Size: 10 thru 24
- Type:
  - 80 or 3180 — plug cap
  - 81 or 3181 — receptacle cap
- Prefix: KPT, KSP, MS
  - use KPT for KPSE/KPTM
  - use KSP for KSSE/KSPM

Shell Size°	A ±.003	F Max.	G Max.	H ±.250	L Max.	M ±.015 −.016	N Min.	Q Max.
°- 8°°	.471	.719	.562	3.000	.562	.384	.578	.719
°-10°°	.588	.844	.562	3.000	.562	.384	.703	.812
°-12°°	.748	1.000	.562	3.500	.562	.384	.891	1.000
°-14°°	.873	1.125	.562	3.500	.562	.384	1.016	1.125
°-16°°	.998	1.250	.562	3.500	.562	.384	1.141	1.250
°-18°°	1.123	1.375	.562	3.500	.562	.384	1.266	1.375
°-20°°	1.248	1.500	.562	4.000	.625	.446	1.391	1.500
°-22°°	1.373	1.625	.562	4.000	.625	.446	1.516	1.625
°-24°°	1.498	1.750	.602	4.000	.658	.479	1.641	1.750

° Add prefix: KPT, KSP, or MS and add type:
80 for plug cap, 81 for receptacle cap; 3180 for MS plug cap, 3181 for MS receptacle cap.

°° Add termination style; see part number explanation above.

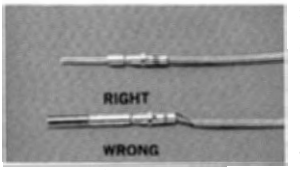
Dimensions subject to change

Assembly Instructions

Contact Size	Wire Size AWG	Strip Insulation
20	#20-#24	3/16"
16	#20-#20	1/4"

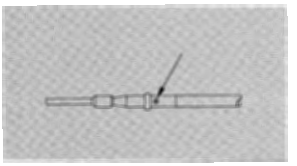
CRIMPING CONTACTS

1. Strip wires according to the table above taking care not to cut or nick strands.

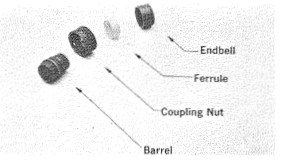


2. Insert stripped wire into contact crimp pot. Wire must be visible thru inspection hole.

3. Using correct crimp tool and locator; cycle the tool once to be sure the indentors are open. Insert contact and wire into locator. Squeeze tool handles firmly and completely to insure a proper crimp. The tool will not release unless the crimp indentors in the tool head have been fully actuated.

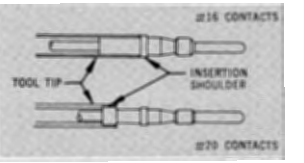


4. Release crimped contact and wire from tool. Be certain the wire is visible thru inspection hole in contact.



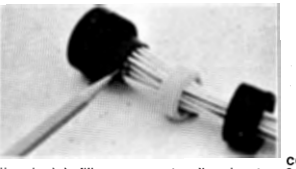
CONTACT INSERTION

5. Remove hardware from plug and receptacle. Slide hardware over wire bundle in proper order for re-assembly.



6. Use the proper contact insertion tool, and slide the tool over the terminal end of the contact. The size 16 contact lies in the tool and the tool tip butts against the contact shoulder. The rear, or insulation support, of the size 20 contact butts against an internal shoulder in the tool tip.

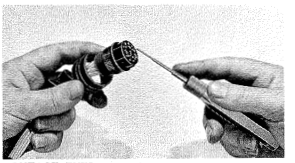
7. Beginning from center cavity and working outwards, insert wired contacts into rear of connector by hand until the front of the contact shoulder is no more than 1/8" from the grommet. Holding the connector securely, position tool behind contact. Push tool straight into contact cavity until contact snaps into position. A light pull on wire will assure that contact is locked securely. Repeat for remaining contacts.



8. Use wire hole fillers or grommet sealing plugs to fill any empty cavities and assemble hardware to rear of plug or receptacle.

COMPLETION

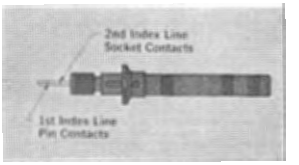
9. Check face of plug or receptacle for proper contact installation.



CONTACT EXTRACTION

10. Slide hardware back over wire bundle. Using proper extraction tool or extraction end of proper insertion/extraction tool, proceed as follows:

KPTM: Make sure reversible tool tip is set for pin or socket contacts. Place tool tip over contact from front of insulator and, with slow and even pressure, push contact out of back of insulator.



KPSE: Use the proper extraction tool. There are two lines on the clip sleeve which are vital to the contact removal process. The first index line is used for removing pin contacts while the second index line is for removing socket contacts.

Carefully place the tool tip over the contact to be extracted until the tool tip touches the insulator face. Carefully rotate the tool until the index line is slightly below the insulator face. Keep an even pressure against tool body; push plunger forward with thumb and index finger, and push the contact out through the clip. Carefully remove extraction tool from connector. Pull the wire by hand to complete the removal of the contact.

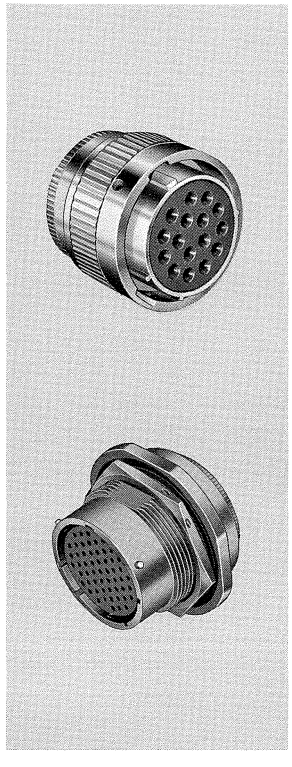
INTRODUCTION

This catalog describes CANNON® connectors using MIL-C-26482 type hardware with three-point bayonet coupling and five-key polarization. These miniature circular connectors are grouped into six series ranging from general purpose solder pot connectors . . . to high performance, crimp connectors . . . to connectors with high contact density. This broad range provides the most complete family of 26482 connectors available today. The versatility of these connectors is proven by their fulfillment of requirements ranging from general purpose to space environmental.

In addition to the six basic series, connectors for special applications are also available. They include RFI filtering versions (with low pass integral filter pin contacts), and twist-on pull-off couplers for MIL-C-26482 plugs.

All MIL-C-26482 type connectors are intermateable and termination hardware is physically interchangeable with many series shown, making design changes in present equipment easier and less costly.

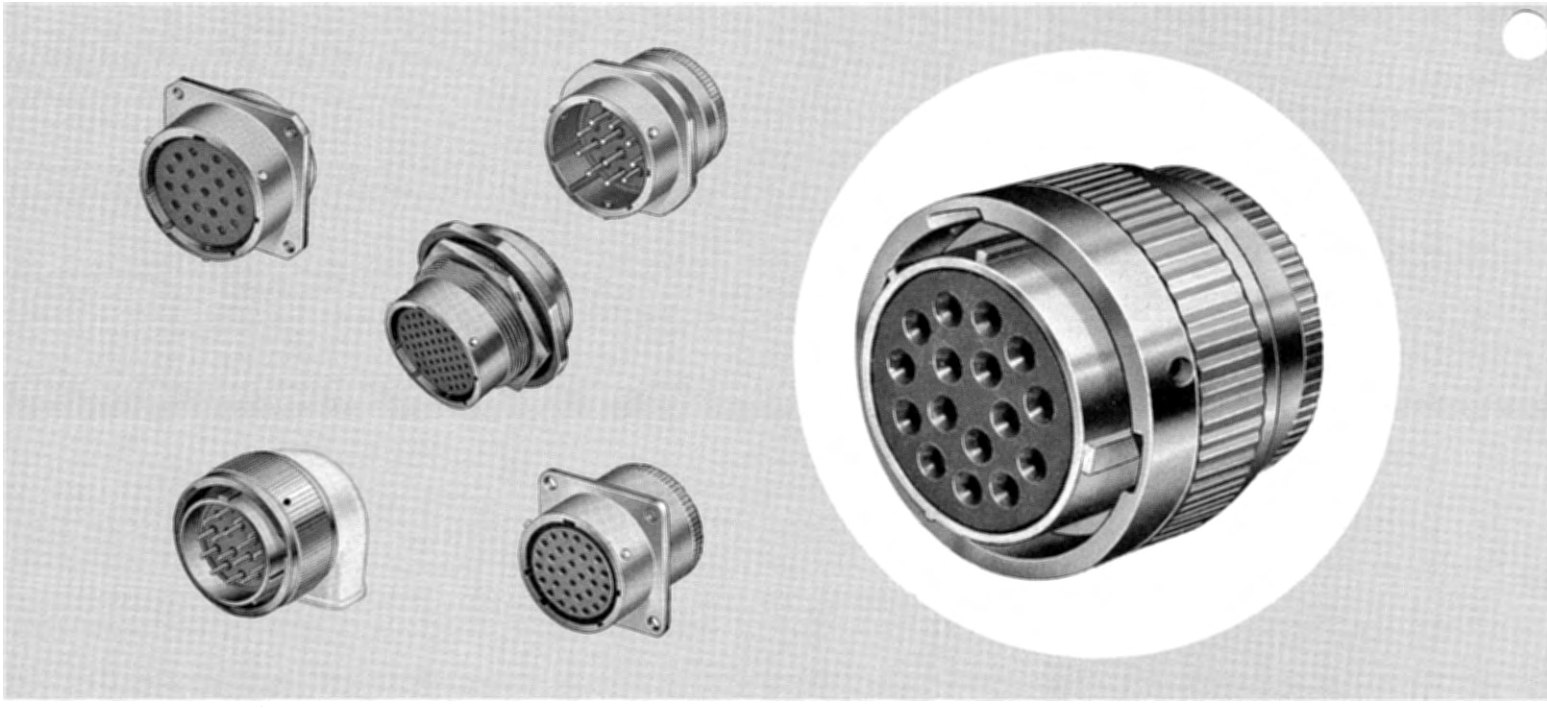
Miniature Circular Connectors



CONTENTS

Quick Selector Chart

SERIES	DESCRIPTION	PAGE
KPT/KSP	**General Purpose, Solder Contact Connector** KPT — General purpose connector with solder pot contacts, resilient insulator, and conductive olive drab over chromate shell finish. KSP — Same as KPT, but with hard anodic, non-conductive finish. Receptacles have a large flange with #6 mtg. holes for rear panel mounting.	4
KPTM/KSPM	**General Purpose, Crimp Contact Connector** KPTM — General purpose connector with crimp snap-in contacts in DUAL-SHORE® insulator. Features closed-entry socket contacts and interfacial sealing. Shell finish is conductive olive drab over chromate. KSPM — Same as KPTM, but with hard anodic, non-conductive finish. Receptacles have a large flange with #6 mtg. holes for rear panel mounting.	5
KPSE/KSSE	**High Performance, Crimp Contact Connector** KPSE — Environment-resistant, high performance connector with front-release, crimp snap-in contacts in an integrally molded insulator. Shell finish is conductive olive drab over chromate. KSSE — Same as KPSE, but with hard anodic, non-conductive finish. Receptacles have a large flange with #6 mtg. holes for rear panel mounting.	6
KPTH	**Hermetically Sealed, Solder Contact Connectors** KPTH — Hermetically sealed KPT receptacles with pin contacts in lead-free compression glass web. Leak rate not in excess of .001 micron cu. ft./hr. Contacts and shells are steel with electrodeposited tin over cadmium finish.	7



KPT/KSP
General Purpose, Solder Contact Connectors

KPT CONNECTORS
- general purpose
- closed-entry socket contacts
- solder termination

KSP CONNECTORS
- hard, black anodize Alumilite, non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPT general purpose miniature circular connectors are widely used in commercial, industrial and deep-space applications. Utilizing solder terminated contacts, KPT connectors feature closed-entry sockets for positive mating.

KSP connectors are identical to KPT connectors except for a hard anodic, non-conductive finish. Receptacles have a larger flange with #6 mounting holes for rear panel mounting.

KPT and KSP connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

KPT 2 E 22-36 P W **
MS 3110 E 22-36 P Y

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPT, KSP — ITT Cannon prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon number:
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle (Class E only)
06 — straight plug
07 — jam nut receptacle (available in hermetic version also)
08 — 90° angle plug
B — thru-bulkhead receptacle (Class E only)

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
B — general duty with strain relief (may be used for potting when strain relief is desired)
E — grommet seal except on 02 and 3112 (MS specification)
F — grommet seal with strain relief (MS specification)
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable (MS specification)
P — potted (MS specification)

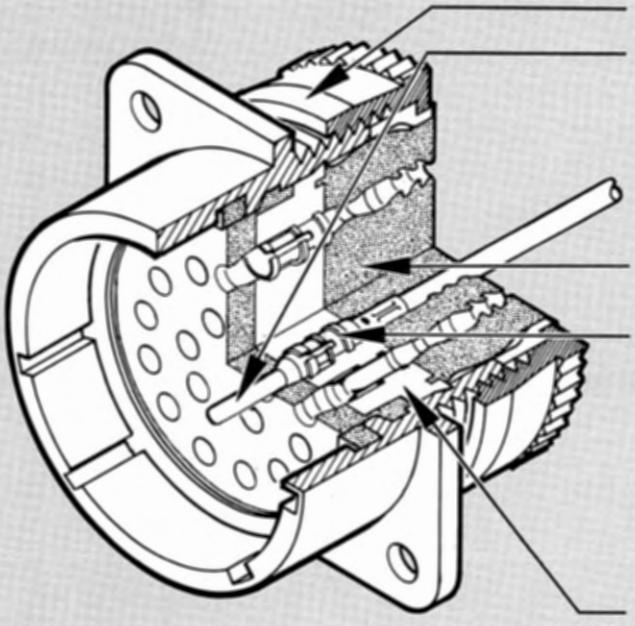
SHELL SIZE
8, 10, 12, 14, 16, 18, 20, 22, and 24

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin; S — socket

ALTERNATE INSERT POSITION
W, X, Y and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.



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

CRIMP, SNAP-IN CONTACTS are designed to MIL-C-23216 and can be crimped with the standard MS3191 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.

UNIQUE INTEGRALLY-MOLDED INSULATOR eliminates separate bonding operations to form a single voidless part with no moisture traps or interface voids.

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.

KPSE/KSSE
High Performance, Crimp Contact Connectors

KPSE CONNECTORS

- 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

KSSE CONNECTORS

- hard, black anodize Alumilite non-conductive finish
- large flange with #6 mounting holes (receptacles)

KPSE environment-resistant miniature circular connectors are designed for the exacting requirements of space and missile applications. The KPSE features a unique unitized insulator, integrally molded into a single voidless part. This insulator is mechanically retained in the shell by a positive, hard plastic-to-metal lock retention. 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.

KSSE connectors are identical to KPSE connectors except for a hard, black anodize Alumilite non-conductive finish. Receptacles have a larger flange with #6 mounting holes for rear panel mounting.

KPSE and KSSE connectors mate with all 26482 connectors.

ORDERING NUMBER INFORMATION

```
KSSE 00    E 18-32 P X
KPSE 0     E 18-32 P X 05
MS   3120  E 18-32 P X
```

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPSE, KSSE, — ITT Cannon Prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon Number:
00 — wall mounting receptacle
01 — cable connecting receptacle
02 — box mounting receptacle
06 — straight plug
07 — jam nut receptacle
08 — 90° angle plug

MS Designation:
3120 — wall mounting receptacle
3121 — cable connecting plug
3122 — box mounting receptacle
3124 — jam nut receptacle
3126 — straight plug

CLASS
A — general duty
B — general duty with strain relief
E — grommet seal (MS specification)
F — grommet seal with strain relief (MS specification)
G — gland seal for jacketed cable
J — gland seal with strain relief for jacketed cable
P — potted (MS specification)

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

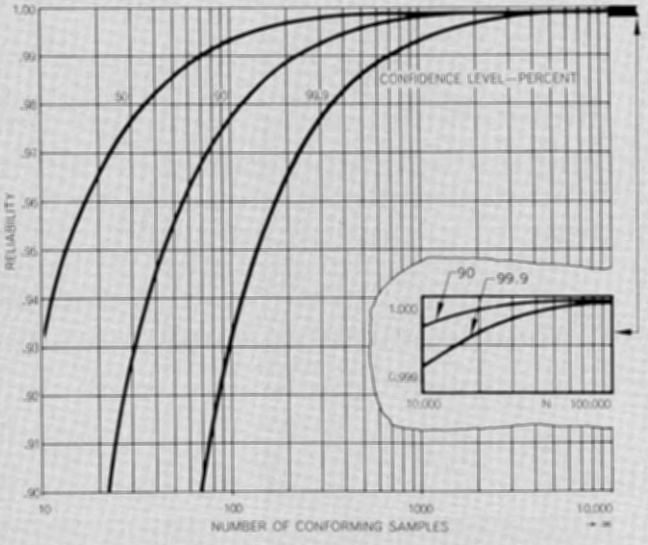
CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin
S — socket

ALTERNATE INSERT POSITION
W, X, Y, and Z. (Omit for normal.) See page 11.

MODIFICATION CODE
Consult factory. Omit first digit (0) of shell style indication when using modification code. See page 8 for modification codes.

- surpass MIL-C-26482 requirements
- pin contacts in a compression glass web
- solder pot or eyelet termination
- lightweight aluminum versions available
- mates with all 26482 connectors except CK



KPTH
Hermetically Sealed, Solder Contact Connectors

Hermetically sealed KPT receptacles fulfill the high reliability requirements of space age applications and environments. Far surpassing the requirements of MIL-C-26482, these receptacles have proven statistically reliable in leakage tests 100 times as severe as required by MIL-C-26482 with a reliability of .9995 at a confidence level of 95% with these results:

- Leak rate not in excess of .001 micron cu. ft./hr.
- 100 psi differential causes no detectable leakage in excess of .001 cu. ft./hr.
- 100 g shock with no loss of hermeticity
- Thermal shock from −70° to +200°C without affecting leakage rate

These receptacles are available with pin contacts only in three shell styles: a box mounting receptacle, KPT02H; a solder mounting receptacle, KPTIH; and a jam nut receptacle, KPT07H. Contact arrangements are tooled in a full lead-free compression glass web.

ORDERING NUMBER INFORMATION

KPT		I	H	8-32	P	N	*
MS	3113	H	8-32	P	X		

- Modification Code
- Alternate Insert Position
- Contact Type
- Contact Arrangement
- Shell Size
- Class
- Shell Style
- Series Prefix

SERIES PREFIX
KPT — ITT Cannon Prefix
MS — complies with MIL-C-26482

SHELL STYLE
ITT Cannon number:
02 — box mounting receptacle
I — solder mounting receptacle
07 — jam nut receptacle
MS Designation:
3113 — solder mounting receptacle
3114 — jam nut receptacle

CLASS
H — hermetic seal (MS specification applies to KPTIH and KPT07H only)

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

CONTACT ARRANGEMENT
See pages 10 and 11.

CONTACT TYPE
P — pin

ALTERNATE INSERT POSITION
N (normal), W, X, Y, and Z

MODIFICATION CODE
Consult factory. See page 8 for modification codes.

MODIFICATION CODES

Preferred Modification Code	Description	Intended Usage
A106	Clean chromate coating over cadmium per QQ-P-416, type II, Class 3	Commercial, decorative hardware finish
A105	Gold over copper per FS-4456, Class A, and per MIL-G-45204, type 2 Class 2 over .00005 min. copper per MIL-C-14550	High reliability finish for contacts
F0	Connectors less contacts (contacts purchased separately)	Applicable to all crimp removable connectors (KPTM, KPSE, KSPM, KSSE)

STANDARD DATA

Standard Materials and Finishes	KPT/KSP	KPTM/KSPM
SHELL	KPT/KPTM — aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 KSP/KSPM — aluminum alloy, black non-conductive Alumilite finish	
INSULATOR	KPT/KSP — 80 shore gray polychloroprene	80 shore green polychloroprene
GROMMET AND SEAL	50 shore gray polychloroprene	50 shore green polychloropreen
CONTACTS	Copper alloy, gold over silver plate per MIL-G-45204 type II, Class I	
Mechanical Features		
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	8 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	G — gland nut for jacketed cable J — gland nut with strain relief for jacketed cable P — potted
Electrical Data		
NUMBER OF CONTACTS	2 thru 61	3 thru 61
WIRE SIZE, AWG	16 thru 24	16 thru 24
CONTACT TERMINATION	solder	crimp snap-in

CONTACT RATING	SIZE	RATED AMPS	TEST CURRENT
	20	7.5	7.5
	16	22.0	13.0

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

COAXIAL CONTACTS	—	RG-55/U, RG-59/U, RG-62/U, RG-195/U, and RG-223/U

Standard Materials and Finishes	KPSE/KSSE	KPTH
SHELL	KPSE — aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416 KSSE — aluminum alloy, black non-ductive alumilite finish	steel, electrodeposited tin over cadmium
INSULATOR	60 shore green polychloroprene	compression glass
GROMMET AND SEAL	60 shore green polychloroprene	—
CONTACTS	copper alloy, gold over silver plate	steel, electrodeposited tin over cadmium
Mechanical Features		
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	1 — solder mounting receptacle 02 — box mounting receptacle 07 — jam nut receptacle
SHELL SIZES	10 thru 24	8 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 G — gland nut for jacketed cable J — gland nut with strain relief for jacketed cable P — potted	H — hermetic
Electrical Data		
NUMBER OF CONTACTS	3 thru 61	2 thru 61
WIRE SIZE, AWG	16 thru 24	—
CONTACT TERMINATION	crimp snap-in	solder

CONTACT RATING	CONTACT SIZE	MILLIVOLT DROP
	20	less than 55
	16	less than 50

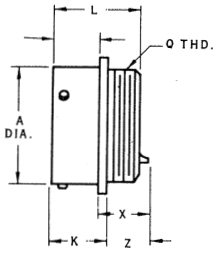
SIZE	RATED AMPS	TEST CURRENT	MV DROP
20	7.5	5.0	70
16	22.0	13.0	75

SERVICE RATING	MAXIMUM OPERATING VOLTAGE	SERVICE	AC (rms)	DC
	Sea Level	1	600	850
		2	1000	1275

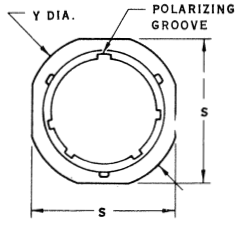
TEST VOLT	SERVICE	AC (rms)	DC
Sea Level	1	1500	2100
	2	2300	3200

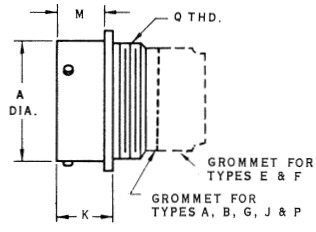
CABLE CONNECTING PLUGS

KPT01/KSP01/MS3111
KPTM01/KSPM01
KPSE01/KSSE01/MS3121



SOLDER
KPT01/KSP01/MS3111





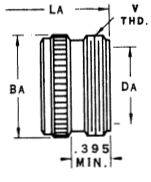
CRIMP
KPTM01/KSPM01
KPSE01/KSSE01/MS3121

PLUG ASSEMBLY

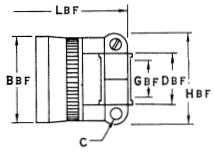
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	A ±.003	K ±.010	L Max.	KPT/KSP/KPTM/KSPM/KPSE/KSSE M ±.005	Q Thread Class 2A	S Max.	Y Max.	KPT Z Max.	KSP X Max.
▲8	.471	.530	.848	.425	7/16-28UNEF	.828	.958	.483	.574
10	.588	.530	.848	.425	9/16-24UNEF	.954	1.082	.483	.574
12	.748	.530	.848	.425	11/16-24UNEF	1.047	1.176	.483	.574
14	.873	.530	.848	.425	13/16-20UNEF	1.141	1.270	.483	.574
16	.998	.530	.848	.425	15/16-20UNEF	1.234	1.364	.483	.574
18	1.123	.530	.848	.425	1- 1/16-18UNEF	1.328	1.458	.483	.574
20	1.248	.650	1.055	.540	1- 3/16-18UNEF	1.453	1.582	.427	.521
22	1.373	.650	1.055	.540	1- 5/16-18UNEF	1.578	1.708	.427	.521
24	1.498	.683	1.055	.573	1- 7/16-18UNEF	1.703	1.832	.393	.488

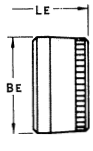
TERMINATION ASSEMBLIES



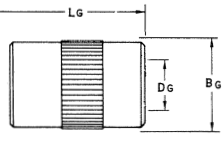
TYPE A



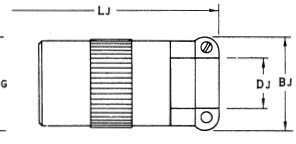
TYPE B AND F



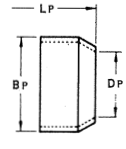
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE A BA Max.	DA Min.	LA Max.	V Thread Class 2A	TYPE B and F BBF Max.	C Thd.	DBF Min.	GBF Min.	HBF Max.	LBF Max.
▲8	.590	.335	1.444	1/2-28UNEF	.552	6-32	.234	.115	.760	1.776
10	.717	.466	1.444	5/8-24UNEF	.677	6-32	.297	.178	.820	1.776
12	.834	.591	1.444	3/4-20UNEF	.802	6-32	.422	.302	.960	1.776
14	.970	.705	1.444	7/8-20UNEF	.927	6-32	.547	.365	1.070	1.776
16	1.088	.830	1.444	1 -20UNEF	1.052	6-32	.609	.490	1.130	1.896
18	1.216	.948	1.444	1-3/16-18UNEF	1.161	8-32	.740	.615	1.390	1.896
20	1.332	1.073	1.728	1-3/16-18UNEF	1.286	8-32	.740	.615	1.390	1.970
22	1.460	1.198	1.728	1-7/16-18UNEF	1.411	8-32	.928	.740	1.570	1.970
24	1.585	1.323	1.738	1-7/16-18UNEF	1.536	8-32	.984	.790	1.700	1.970

Shell Size*	TYPE E BE Max.	LE Max.	TYPE G BG Max.	DG Min.	DG Max.	LG Max.	TYPE J BJ Max.	DJ Min.	DJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
▲8	.557	1.281	.592	.168	.230	1.720	.828	.168	.230	2.270	.602	.327	1.450
10	.677	1.281	.712	.205	.312	1.720	.891	.205	.312	2.270	.691	.444	1.450
12	.802	1.281	.837	.338	.442	1.860	1.016	.338	.442	2.410	.852	.558	1.450
14	.920	1.281	.995	.416	.539	2.050	1.141	.416	.539	2.600	.956	.683	1.450
16	1.045	1.281	1.080	.550	.616	2.270	1.203	.550	.616	2.880	1.088	.808	1.450
18	1.165	1.281	1.200	.600	.672	2.500	1.469	.600	.672	3.170	1.220	.909	1.450
20	1.290	1.360	1.325	.635	.747	2.960	1.469	.635	.747	3.610	1.349	1.034	1.660
22	1.415	1.360	1.450	.670	.846	3.120	1.656	.670	.846	3.760	1.461	1.159	1.660
24	1.540	1.360	1.575	.740	.894	3.250	1.750	.740	.894	3.900	1.593	1.284	1.730

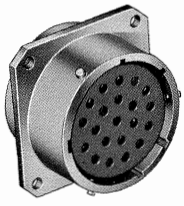
* See pages 4,5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
● (MMC) located within .005 of (TP).

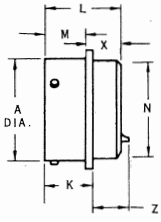
KPT/KPTM/KPSE Series

BOX MOUNTING RECEPTACLES

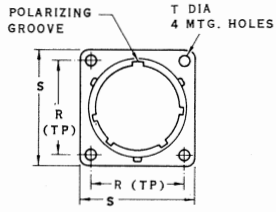
KPT02/KSP02/MS3112
KPT02/KSPM02
KPSE02/KSSE02/MS3122

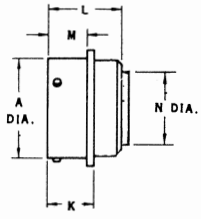
RECEPTACLE ASSEMBLY





SOLDER
KPT02/KSP02/MS3112





CRIMP
KPTM02/KSPM02
KPSE02/KSSE02

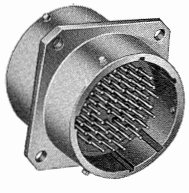
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

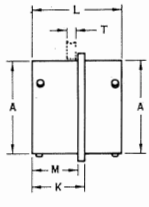
Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE A Dia. ±.003	L Max.	N Dia. Max.	KPT/KPTM/KPSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KPT` Z Max.	KSP/KSPM/KSSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KSP X Max.
▲8	.471	.832	.436	.530	.457	.594	.828	.120	.483	.524	.467	.734	1.057	.150	.542
10	.588	.832	.562	.530	.457	.719	.954	.120	.483	.524	.467	.812	1.135	.150	.542
12	.748	.832	.687	.530	.457	.812	1.047	.120	.483	.524	.467	.938	1.260	.150	.542
14	.873	.832	.812	.530	.457	.906	1.141	.120	.483	.524	.467	1.031	1.354	.150	.542
16	.998	.832	.936	.530	.457	.969	1.234	.120	.483	.524	.467	1.125	1.448	.150	.542
18	1.123	.832	1.061	.530	.457	1.062	1.328	.120	.483	.524	.467	1.203	1.526	.150	.542
20	1.248	.895	1.186	.650	.561	1.156	1.453	.120	.427	.650	.561	1.297	1.682	.150	.500
22	1.373	.895	1.311	.650	.561	1.250	1.578	.120	.427	.650	.561	1.375	1.760	.150	.500
24	1.498	.895	1.436	.683	.594	1.375	1.703	.147	.393	.683	.594	1.500	1.885	.150	.467

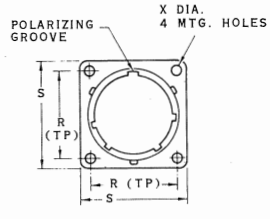
* See pages 4,5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
• (MMC) located within .005 of (TP).

THRU-BULKHEAD RECEPTACLES

KPTB/KSPB/MS3119







SOLDER
KPTB/KSPB/MS3119

RECEPTACLE ASSEMBLY

Shell Size*	KPTB/KSPB A Dia. ±.003	K ±.020	L Max.	M ±.010	T Max.	KPTB R (TP)	KPTB S Max.	KPTB X ±.005	KSPB R (TP)	KSPB S Max.	KSPB X ±.005
8	.471	.634	1.125	.572	.188	.594	.828	.120	.734	1.057	.150
10	.588	.634	1.125	.572	.188	.719	.954	.120	.812	1.135	.150
12	.748	.634	1.125	.572	.188	.812	1.047	.120	.938	1.260	.150
14	.873	.634	1.125	.572	.188	.906	1.141	.120	1.031	1.354	.150
16	.998	.634	1.125	.572	.188	.969	1.234	.120	1.125	1.448	.150
18	1.123	.634	1.125	.572	.188	1.062	1.328	.120	1.203	1.526	.150
20	1.248	.792	1.255	.698	.312	1.156	1.453	.120	1.297	1.682	.150
22	1.373	.792	1.255	.698	.312	1.250	1.578	.120	1.375	1.760	.150
24	1.498	.792	1.255	.698	.312	1.375	1.703	.147	1.500	1.885	.150

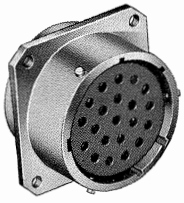
* See page 4 for ordering number information.
● (MMC) located within .005 of (TP).

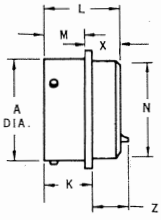
KPT/KPTM/KPSE Series

BOX MOUNTING RECEPTACLES

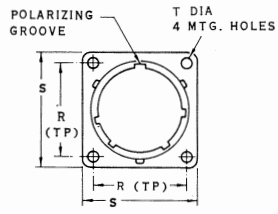
KPT02/KSP02/MS3112
KPT02/KSPM02
KPSE02/KSSE02/MS3122

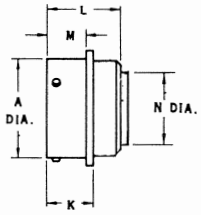
RECEPTACLE ASSEMBLY





SOLDER
KPT02/KSP02/MS3112





CRIMP
KPTM02/KSPM02
KPSE02/KSSE02

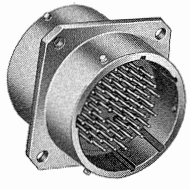
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

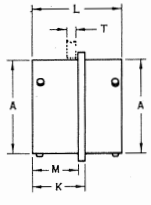
Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE A Dia. ±.003	L Max.	N Dia. Max.	KPT/KPTM/KPSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KPT` Z Max.	KSP/KSPM/KSSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KSP X Max.
▲8	.471	.832	.436	.530	.457	.594	.828	.120	.483	.524	.467	.734	1.057	.150	.542
10	.588	.832	.562	.530	.457	.719	.954	.120	.483	.524	.467	.812	1.135	.150	.542
12	.748	.832	.687	.530	.457	.812	1.047	.120	.483	.524	.467	.938	1.260	.150	.542
14	.873	.832	.812	.530	.457	.906	1.141	.120	.483	.524	.467	1.031	1.354	.150	.542
16	.998	.832	.936	.530	.457	.969	1.234	.120	.483	.524	.467	1.125	1.448	.150	.542
18	1.123	.832	1.061	.530	.457	1.062	1.328	.120	.483	.524	.467	1.203	1.526	.150	.542
20	1.248	.895	1.186	.650	.561	1.156	1.453	.120	.427	.650	.561	1.297	1.682	.150	.500
22	1.373	.895	1.311	.650	.561	1.250	1.578	.120	.427	.650	.561	1.375	1.760	.150	.500
24	1.498	.895	1.436	.683	.594	1.375	1.703	.147	.393	.683	.594	1.500	1.885	.150	.467

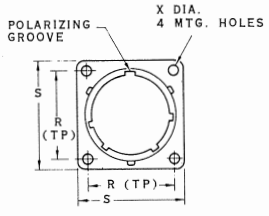
* See pages 4,5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
• (MMC) located within .005 of (TP).

THRU-BULKHEAD RECEPTACLES

KPTB/KSPB/MS3119







SOLDER
KPTB/KSPB/MS3119

RECEPTACLE ASSEMBLY

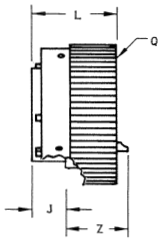
Shell Size*	A Dia. ±.003	KPTB/KSPB K ±.020	L Max.	M ±.010	T Max.	KPTB R (TP)	S Max.	X ±.005	KSPB R (TP)	S Max.	X ±.005
8	.471	.634	1.125	.572	.188	.594	.828	.120	.734	1.057	.150
10	.588	.634	1.125	.572	.188	.719	.954	.120	.812	1.135	.150
12	.748	.634	1.125	.572	.188	.812	1.047	.120	.938	1.260	.150
14	.873	.634	1.125	.572	.188	.906	1.141	.120	1.031	1.354	.150
16	.998	.634	1.125	.572	.188	.969	1.234	.120	1.125	1.448	.150
18	1.123	.634	1.125	.572	.188	1.062	1.328	.120	1.203	1.526	.150
20	1.248	.792	1.255	.698	.312	1.156	1.453	.120	1.297	1.682	.150
22	1.373	.792	1.255	.698	.312	1.250	1.578	.120	1.375	1.760	.150
24	1.498	.792	1.255	.698	.312	1.375	1.703	.147	1.500	1.885	.150

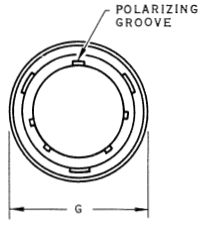
* See page 4 for ordering number information.
● (MMC) located within .005 of (TP).

STRAIGHT PLUGS

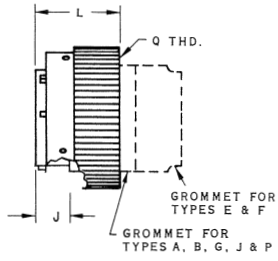
KPT06/KSP06/MS3116
KPTM06/KPSM06
KPSE06/KSSE06/MS3126

RECEPTACLE ASSEMBLY





SOLDER
KPT06/KSP06/MS3116

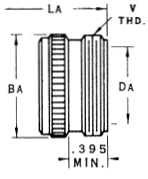


CRIMP
KPTM06/KSPM06
KPSE06/KSSE06/MS3126

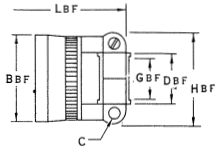
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE G Max.	J ±.005	L Max.	Q Thread Class 2A	KPT/KSP Z Max.
▲8	.730	.358	.844	7/16-28UNEF	.641
10	.850	.358	.844	9/16-24UNEF	.641
12	1.010	.358	.844	11/16-24UNEF	.641
14	1.130	.358	.844	13/16-20UNEF	.641
16	1.260	.358	.844	15/16-20UNEF	.641
18	1.380	.358	.844	1- 1/16-18UNEF	.641
20	1.510	.420	.989	1- 3/16-18UNEF	.584
22	1.630	.420	.989	1- 5/16-18UNEF	.584
24	1.760	.420	.989	1- 7/16-18UNEF	.584

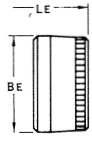
TERMINATION ASSEMBLIES



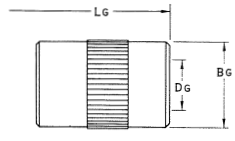
TYPE A



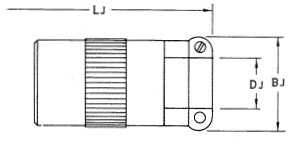
TYPE B AND F



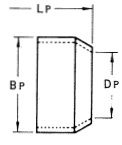
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE A BA Max.	DA Min.	LA Max.	V Thread Class 2A	TYPE B and F BBF Max.	C Thd.	DBF Min.	GBF Min.	HBF Max.	LBF Max.
▲8	.590	.335	1.440	1/2-28UNEF	.552	6-32	.234	.115	.760	1.772
10	.717	.466	1.440	5/8-24UNEF	.677	6-32	.297	.178	.820	1.772
12	.834	.591	1.440	3/4-20UNEF	.802	6-32	.422	.302	.960	1.772
14	.970	.705	1.440	7/8-20UNEF	.927	6-32	.547	.365	1.070	1.772
16	1.088	.830	1.440	1 -20UNEF	1.052	6-32	.609	.490	1.130	1.892
18	1.216	.948	1.440	1-3/16-18UNEF	1.161	8-32	.740	.615	1.390	1.892
20	1.332	1.073	1.662	1-3/16-18UNEF	1.286	8-32	.740	.615	1.390	1.904
22	1.460	1.198	1.662	1-7/16-18UNEF	1.411	8-32	.928	.740	1.570	1.904
24	1.585	1.323	1.672	1-7/16-18UNEF	1.536	8-32	.984	.790	1.700	1.904

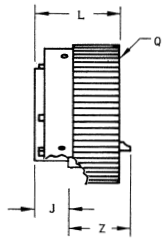
WITH TERMINATION ASSEMBLIES

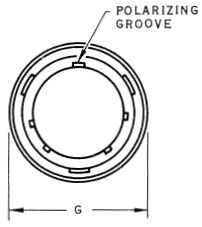
Shell Size*	TYPE E BE Max.	LE Max.	TYPE G BG ±.005	DG Min.	DG Max.	LG Max.	TYPE J BJ Max.	DJ Min.	DJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
▲8	.557	1.281	.592	.168	.230	1.720	.828	.168	.230	2.270	.602	.327	1.450
10	.677	1.281	.712	.205	.312	1.720	.891	.205	.312	2.270	.691	.444	1.450
12	.802	1.281	.851	.338	.442	1.860	1.016	.338	.442	2.410	.852	.558	1.450
14	.920	1.281	.995	.416	.539	2.050	1.141	.416	.539	2.600	.956	.683	1.450
16	1.045	1.281	1.080	.550	.616	2.270	1.203	.550	.616	2.880	1.088	.808	1.450
18	1.165	1.281	1.200	.600	.672	2.500	1.469	.600	.672	3.170	1.220	.909	1.450
20	1.290	1.294	1.325	.635	.747	2.900	1.469	.635	.747	3.510	1.349	1.034	1.600
22	1.415	1.294	1.450	.670	.846	3.055	1.656	.670	.846	3.670	1.461	1.159	1.600
24	1.540	1.294	1.575	.740	.894	3.190	1.750	.740	.894	3.800	1.593	1.284	1.690

* See pages 4, 5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
● (MMC) located within .005 of (TP).

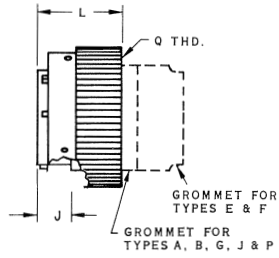
STRAIGHT PLUGS

KPT06/KSP06/MS3116
KPTM06/KPSM06
KPSE06/KSSE06/MS3126





SOLDER
KPT06/KSP06/MS3116



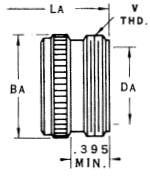
CRIMP
KPTM06/KSPM06
KPSE06/KSSE06/MS3126

RECEPTACLE ASSEMBLY

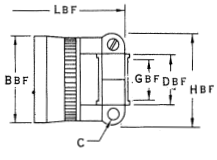
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE G Max.	J ±.005	L Max.	Q Thread Class 2A	KPT/KSP Z Max.
▲8	.730	.358	.844	7/16-28UNEF	.641
10	.850	.358	.844	9/16-24UNEF	.641
12	1.010	.358	.844	11/16-24UNEF	.641
14	1.130	.358	.844	13/16-20UNEF	.641
16	1.260	.358	.844	15/16-20UNEF	.641
18	1.380	.358	.844	1- 1/16-18UNEF	.641
20	1.510	.420	.989	1- 3/16-18UNEF	.584
22	1.630	.420	.989	1- 5/16-18UNEF	.584
24	1.760	.420	.989	1- 7/16-18UNEF	.584

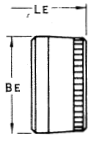
TERMINATION ASSEMBLIES



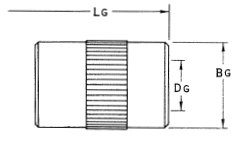
TYPE A



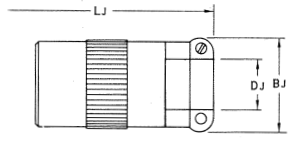
TYPE B AND F



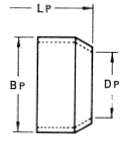
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE A BA Max.	DA Min.	LA Max.	V Thread Class 2A	TYPE B and F BBF Max.	C Thd.	DBF Min.	GBF Min.	HBF Max.	LBF Max.
▲8	.590	.335	1.440	1/2-28UNEF	.552	6-32	.234	.115	.760	1.772
10	.717	.466	1.440	5/8-24UNEF	.677	6-32	.297	.178	.820	1.772
12	.834	.591	1.440	3/4-20UNEF	.802	6-32	.422	.302	.960	1.772
14	.970	.705	1.440	7/8-20UNEF	.927	6-32	.547	.365	1.070	1.772
16	1.088	.830	1.440	1 -20UNEF	1.052	6-32	.609	.490	1.130	1.892
18	1.216	.948	1.440	1-3/16-18UNEF	1.161	8-32	.740	.615	1.390	1.892
20	1.332	1.073	1.662	1-3/16-18UNEF	1.286	8-32	.740	.615	1.390	1.904
22	1.460	1.198	1.662	1-7/16-18UNEF	1.411	8-32	.928	.740	1.570	1.904
24	1.585	1.323	1.672	1-7/16-18UNEF	1.536	8-32	.984	.790	1.700	1.904

WITH TERMINATION ASSEMBLIES

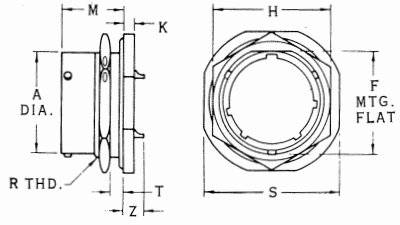
Shell Size*	TYPE E BE Max.	LE Max.	TYPE G BG ±.005	DG Min.	DG Max.	LG Max.	TYPE J BJ Max.	DJ Min.	DJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
▲8	.557	1.281	.592	.168	.230	1.720	.828	.168	.230	2.270	.602	.327	1.450
10	.677	1.281	.712	.205	.312	1.720	.891	.205	.312	2.270	.691	.444	1.450
12	.802	1.281	.851	.338	.442	1.860	1.016	.338	.442	2.410	.852	.558	1.450
14	.920	1.281	.995	.416	.539	2.050	1.141	.416	.539	2.600	.956	.683	1.450
16	1.045	1.281	1.080	.550	.616	2.270	1.203	.550	.616	2.880	1.088	.808	1.450
18	1.165	1.281	1.200	.600	.672	2.500	1.469	.600	.672	3.170	1.220	.909	1.450
20	1.290	1.294	1.325	.635	.747	2.900	1.469	.635	.747	3.510	1.349	1.034	1.600
22	1.415	1.294	1.450	.670	.846	3.055	1.656	.670	.846	3.670	1.461	1.159	1.600
24	1.540	1.294	1.575	.740	.894	3.190	1.750	.740	.894	3.800	1.593	1.284	1.690

* See pages 4, 5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
● (MMC) located within .005 of (TP).

JAM NUT RECEPTACLES

KPT07/KSP07/MS3114
KPTM07/KSPM07
KPSE07/KSSE07/MS3124

RECEPTACLE ASSEMBLY



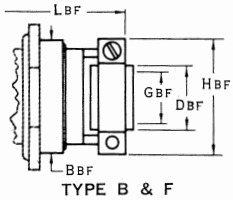
SOLDER
KPT07/KSP07/MS3114
TYPE A

CRIMP
KPTM07/KSPM07
KPSE07/KSSE07/MS3124
TYPE A

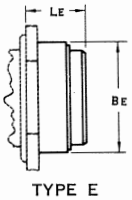
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE A ±.003	F ±.005	H ±.005	K ±.010	M ±.005	R Thread Class 2A	S ±.010	T Panel Thick. Min.	T Panel Thick. Max.	KPT/KSP Z Max.
▲8	.471	.525	.750	.125	.696	9/16-24UNEF	.938	.062	.125	.312
10	.588	.650	.875	.125	.696	11/16-24UNEF	1.062	.062	.125	.312
12	.748	.813	1.062	.125	.696	7/8 -20UNEF	1.250	.062	.125	.312
14	.873	.937	1.188	.125	.696	1 -20UNEF	1.375	.062	.125	.312
16	.998	1.061	1.312	.125	.696	1- 1/8 -18UNEF	1.500	.062	.125	.312
18	1.123	1.186	1.438	.125	.696	1- 1/4 -18UNEF	1.625	.062	.125	.312
20	1.248	1.311	1.562	.156	.884	1- 3/8 -18UNEF	1.812	.062	.250	.187
22	1.373	1.436	1.688	.156	.884	1- 1/2 -18UNEF	1.938	.062	.250	.187
24	1.498	1.561	1.812	.156	.917	1- 5/8 -18UNEF	2.062	.062	.250	.150

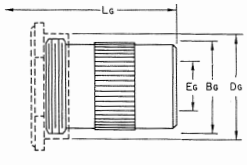
TERMINATION ASSEMBLIES



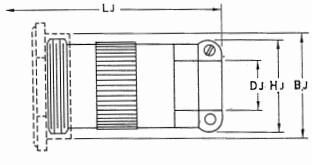
TYPE B & F



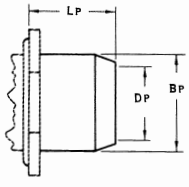
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE B and F B_{BF} Max.	D_{BF} Min.	G_{BF} Min.	H_{BF} Max.	L_{BF} Max.	TYPE E B_E Max.	L_E Max.	TYPE G B_G Max.	D_G Max.	E_G Min.	E_G Max.	L_G Max.	TYPE J B_J Max.	D_J Max.	D_J Min.	H_J Max.	L_J Max.	TYPE P B_P Max.	D_P Min.	L_P Max.
▲8	.717	.234	.115	.760	1.766	.717	.638	.592	.717	.168	.230	1.750	.717	.230	.168	.760	2.250	.602	.327	.625
10	.843	.297	.178	.820	1.766	.843	.638	.712	.843	.205	.312	1.750	.843	.312	.205	.820	2.250	.691	.444	.625
12	.968	.422	.302	.953	1.766	.968	.638	.837	.968	.338	.442	1.890	.968	.442	.338	.960	2.390	.852	.558	.625
14	1.093	.547	.365	1.070	1.766	1.093	.638	.955	1.093	.416	.539	2.180	1.093	.539	.416	1.070	2.680	.956	.683	.625
16	1.218	.609	.490	1.130	1.906	1.218	.638	1.080	1.218	.550	.616	2.300	1.218	.616	.550	1.130	2.920	1.088	.808	.625
18	1.343	.740	.615	1.390	1.906	1.343	.638	1.200	1.343	.600	.672	2.770	1.343	.672	.600	1.390	3.390	1.220	.909	.625
20	1.500	.740	.615	1.390	1.980	1.500	.654	1.325	1.500	.635	.747	2.980	1.500	.747	.635	1.390	3.600	1.349	1.034	.746
22	1.625	.928	.740	1.568	1.980	1.625	.654	1.450	1.625	.670	.846	3.130	1.625	.846	.670	1.570	3.750	1.461	1.159	.746
24	1.750	.984	.790	1.700	1.980	1.750	.621	1.575	1.750	.740	.894	3.350	1.750	.894	.740	1.700	3.970	1.593	1.284	.716

* See pages 4, 5 and 6 for ordering number information.

▲ Not available in KPSE/KSSE

Dimensions subject to change

TEST DATA

Test Name and MIL-C-26482 Ref. Paragraph	KPT/KSP/KPTM/KSPM	KPSE/KSSE
MAINTENANCE AGING Para. 4.7.5	Engaging and disengaging torque (in./lbs.) limits were satisfactory within those specified for shell sizes involved.	
THERMAL SHOCK Para. 4.7.6	There was no evidence of cracking or other damage detrimental to connector operation after exposure to 5 cycles of temperature change from —55°C to +125°C, 1 hour per cycle, divided equally between temperature extremes.	
INSULATION RESISTANCE (elev. temp) Para. 4.7.3	While applying 500 VDC for 250 hours at 125°C, the insulation resistance was greater than 50 megohms between all adjacent contact pairs, shell, and its closest contacts. Insulation resistance was greater than 25 megohms at 105°C for 1000 hrs.	
DIELECTRIC WITHSTANDING VOLTAGE (sea level) Para. 4.7.4	There was no evidence of breakdown or flashover with 1500VAC applied for 1 min. between 6 pairs of adjacent contacts and between contacts closest to shell and shell for Service Rating 1 and 2300VAC applied in the same manner for Service Rating 2.	
DURABILITY Para 4.7.9	There was no evidence of mechanical or electrical damage to connectors after 500 engagements and disengagements as in service.	
VIBRATION Para. 4.7.11	With contacts wired in series and monitored for continuity, there was no mechanical damage and no electrical discontinuity greater than 10 microseconds. Connectors mounted and mated as in service and vibrated through a range of 10 cps to 2K cps for 20 min. in each of 3 mutually perpendicular axes at a double amplitude of 0.06", or 15g's max.	
SHOCK Para. 4.7.12	With contacts wired in series and monitored for continuity, there was no mechanical damage and no electrical discontinuity greater than 10 microseconds while the connector was subjected to an 11 millisecond, 50g mechanical shock in each of three major axes.	
INSULATION RESISTANCE (after vib. & shock) Para. 4.7.13	With 500VDC applied to mated connectors, insulation resistance was greater than 5,000 megohms between each pair of adjacent contacts and between shell and its closest contacts.	
MOISTURE RESISTANCE Para. 4.7.13.2	With 500VDC applied, insulation resistance between any two contacts or any contact and the shell was no less than 100 megohms while mated connectors were exposed to the following high humidity environment; 10 cycles, 24 hours each, in humidity chamber adjusted to cause condensation at prescribed intervals.	
SOLVENT IMMERSION Para. 4.7.14	Engaging and disengaging torques and dielectric withstanding voltages were within the limits previously indicated after unmated connectors had been immersed in aviation hydraulic fluid for 20 hours followed by 1 hour drying in free air.	
CONTACT RESISTANCE Para. 4.7.2	For size 16 contacts, minimum voltage drop was less than 50MV with a DC current for 13 amps flowing, and for size 20 contacts, the corresponding voltage drop was less than 50MV with a DC current of 7.5 amps flowing, in accordance with MIL-STD-202, Method 307.	
INSERT RETENTION Para. 4.7.15	Inserts within wired connectors (less grommets and endbells) did not dislodge when subjected to pressures of 75 psi on each insulator face for a period of 5 seconds.	
HIGH ALTITUDE IMMERSION (per MIL-C-26500B)	Wires and mated connectors immersed in 50% salt water solution. Pressure reduced to 6,000 ft. altitude (5.41 cm Hg.) and maintained for 30 minutes prior to measurement of insulation resistance while still immersed in salt solution. In no case was insulation resistance found to be less than 100 megohms.	Not applicable to KPSE.
CONTACT RETENTION (5 min. test) Para. 4.7.16	In no case did axial contact displacement exceed .012" after the application of a 5 lb. preload, followed by application of 15 lbs. and 25 lbs. axial load at engaging end of size 20 and 16 contacts respectively. Displacement is measured after a minimum of 5 seconds and while still under load. This test does not apply to KPTM connectors.	
SALT SPRAY MIL-STD-202B, Method 101A, Condition B	No damage or unacceptable increase in contact resistance after mated sample subjected to 48 hours of salt spray.	
AIR LEAKAGE	30 psi differential at —67°F (KPT only) — less than 1 atmosphere cubic inch per hour	
TEMPERATURE RANGE	—55°C to +125°C	
CONTACT INSERTION AND EXTRACTION	Insertion force does not exceed 20 lbs. Extraction force does not exceed 20 lbs.	

Engaging and disengaging torque (in./lbs.) limits were satisfactory within those specified for shell sizes involved.

Shell Size	8	10	12	14	16	18	20	22	24
Engaging Torque (Max.)	8	12	16	20	24	28	32	36	44
Disengaging Torque (Max.)	1	1	2	4	4	5	6	7	7

Contact insertion forces measured on 20% of contacts, but not less than 3 contacts, of each connector for size 20 and size 16 contacts, do not exceed 20 lbs. at the ninth insertion.

CONTACT ARRANGEMENTS

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

2 Contacts

	8-2
CONTACTS	2-#20
SERVICE	1

	12A3
CONTACTS	2-#16
SERVICE	

3 Contacts

	8-3
CONTACTS	3-#20
SERVICE	1

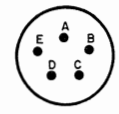
	8-33
CONTACTS	3-#20
SERVICE	1

	12-3
CONTACTS	3-#16
SERVICE	2

4 Contacts

	8-4
CONTACTS	4-#20
SERVICE	1

5 Contacts

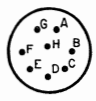


	14-5
CONTACTS	5-#16
SERVICE	2

6 Contacts

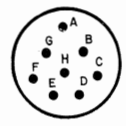
	10-6
CONTACTS	6-#20
SERVICE	1

	10-98
CONTACTS	6-#20
SERVICE	1

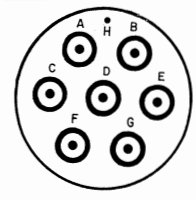


	12-8
CONTACTS	8-#20
SERVICE	1

8 Contacts

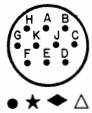


	16-8
CONTACTS	8-#16
SERVICE	2



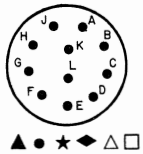
	24A2	24A4	24A8	24A9
CONTACTS	1-#20	1-#20	1-#20	1-#20
SERVICE	7-RG-195/U	7-RG-55/U	7-RG-59/U or -62/U	7-RG-223/U

10 Contacts



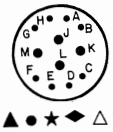
	12-10
CONTACTS	10-#20
SERVICE	1

11 Contacts



	18-11
CONTACTS	11-#16
SERVICE	2

12 Contacts

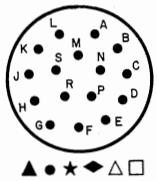


	14-12
CONTACTS	8-#20 4-#16
SERVICE	1

15 Contacts

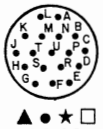
	14-15
CONTACTS	14-#20 1-#16
SERVICE	1

16 Contacts



	20-16
CONTACTS	16-#16
SERVICE	2

18 Contacts

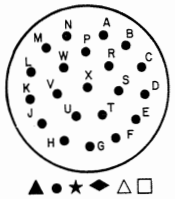


	14-18
CONTACTS	18-#20
SERVICE	1

19 Contacts

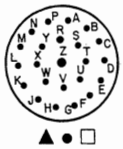
	14-19
CONTACTS	19-#20
SERVICE	1

21 Contacts

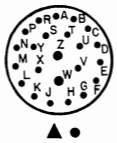


	22-21
CONTACTS	21-#16
SERVICE	2

23 Contacts

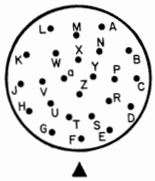


	16-23
CONTACTS	22-#20 1-#16
SERVICE	1



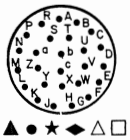
	16A99
CONTACTS	21-#20 2-#16
SERVICE	1

24 Contacts



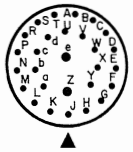
	20-24
CONTACTS	24-#20
SERVICE	1

26 Contacts



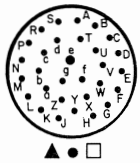
	16-26
CONTACTS	26-#20
SERVICE	1

28 Contacts



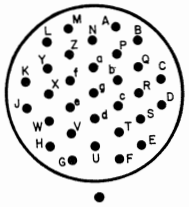
	18A28
CONTACTS	26-#20 2-#16
SERVICE	1

30 Contacts



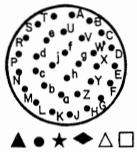
	18-30
CONTACTS	29-#20 1-#16
SERVICE	1

31 Contacts



	24A31
CONTACTS	31-#16
SERVICE	1

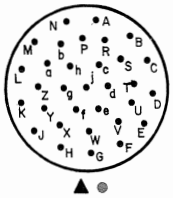
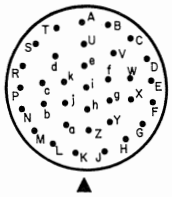
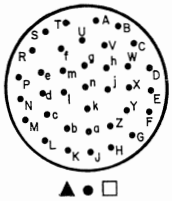
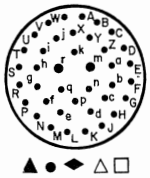
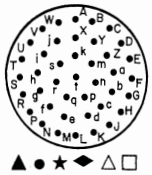
32 Contacts

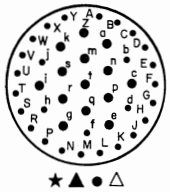
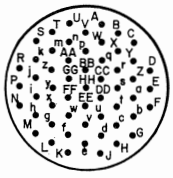
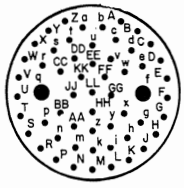
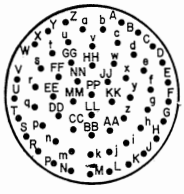


	18-32
CONTACTS	32-#20
SERVICE	1

KPT/KPTM/KPSE/KPTH Series

CONTACT ARRANGEMENTS

32 Contacts	34 Contacts	36 Contacts	39 Contacts	41 Contacts	
					
▲ ●	▲	▲ ● □	▲ ● ◆ △ □	▲ ● ★ ◆ △ □	
22-32	**22-34**	**22-36**	**20-39**	**20-41**	
32-#20	34-#20	36-#20	37-#20 2-#16	41-#20	CONTACTS
1	1	1	1	1	SERVICE

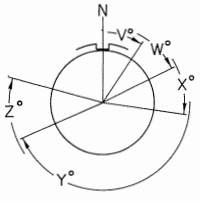
41 Contacts	55 Contacts	57 Contacts	61 Contacts	
				
★ ▲ ● △	▲ ● ★ ◆ △ □	▲	▲ ● ★ ◆ △	
22A41	**22-55**	**24A57**	**24-61**	
27-#20 14-#16	55-#20	55-#20 2-#12	61-#20	CONTACTS
1 (#20's); 2 (#16's)	1	1	1	SERVICE

LEGEND

▲ KPT/KSP	◆ KPSE/KSSE
● KPTM/KSPM	△ Authorized per MIL-C-26482 (NAVY)
★ KPTH (hermetic)	□ Authorized per SCL-6019 (SIGNAL CORPS)

NOTE: Red symbols indicate partial tooling.
Consult factory for availability.

INSERT POSITION
(Face view of pin insert)



ALTERNATE INSERT POSITIONS

The diagram at the left indicates alternate insert positions. The six positions (V, W, X, Y, Z and Normal) differ in degree of rotation for various sizes and arrangements. For the exact degree of rotation, and for the list of contact arrangements and alternate positions available, refer to the tabulation below.

SHELL SIZE	NO. OF CONTACTS	ARR. NO.	V	DEGREES OF ROTATION W	X	Y	Z
8	2	8-2	—	58	122	—	—
	3	8-3	—	60	210	—	—
	3	8-33	—	90	—	—	—
	4	8-4	—	45	—	—	—
10	6	10-6	—	90	—	—	—
	6	10-98	—	90	180	240	270
12	2	12A3	—	—	—	—	—
	3	12-3	—	—	—	180	—
	8	12-8	—	90	112	203	292
	10	12-10	—	60	155	270	295
14	5	14-5	—	40	92	184	273
	12	14-12	—	43	90	—	—
	15	14-15	—	17	110	155	234
	18	14-18	—	15	90	180	270
	19	14-19	—	30	165	315	—
16	8	16-8	—	54	152	180	331
	23	16-23	—	158	270	—	—
	23	16A99	—	66	156	223	340
	26	16-26	—	60	—	275	338

SHELL SIZE	NO. OF CONTACTS	ARR. NO.	V	DEGREES OF ROTATION W	X	Y	Z
18	11	18-11	—	62	119	241	340
	28	18A28	—	—	—	—	—
	30	18-30	—	180	193	285	350
	32	18-32	—	85	138	222	265
20	16	20-16	—	238	318	333	347
	24	20-24	—	70	145	215	290
	39	20-39	—	63	144	252	333
	41	20-41	—	45	126	225	—
22	21	22-21	—	16	135	175	349
	32	22-32	—	72	145	215	288
	34	22-34	—	62	142	218	298
	36	22-36	—	72	144	216	288
	41	22-41	—	39	73	149	196
	55	22-55	—	30	142	226	314
24	8	24A2	—	—	—	—	—
	8	24A4	—	—	—	—	—
	8	24A8	—	—	—	—	—
	8	24A9	—	—	—	—	—
	31	24A31	—	90	225	—	—
	57	24A57	—	90	180	270	324
	61	24-61	—	90	180	270	324

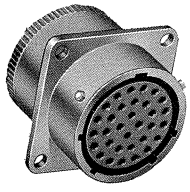
Red numbers indicate positions are not to MIL-C-26482

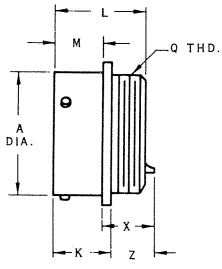
KPT/KPTM/KPSE Series

WALL MOUNTING RECEPTACLES

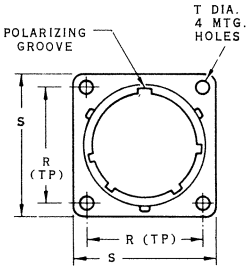
KPT00/KSP00/MS3110
KPTM00/KSPM00
KPSE00/KSSE00/MS3120

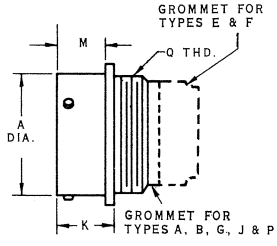
RECEPTACLE ASSEMBLY





SOLDER
KPT00/KSP00/MS3110



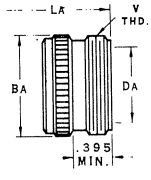


CRIMP
KPTM00/KSPM00
KPSE00/KSSE00/MS3120

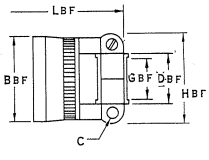
RECEPTACLE ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KPTM/KSP/KSPM/KPSE/KSSE A ±.003	L Max.	Q Thread Class 2A	KPT/KPTM/KPSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KPT Z Max.	KSP/KSPM/KSSE K ±.010	M ±.005	R (TP)	S Max.	T ±.005	KSP X Max.
▲8	.471	.848	7/16-28UNEF	.530	.457	.594	.828	.120	.483	.524	.467	.734	1.057	.150	.542
10	.588	.848	9/16-24UNEF	.530	.457	.719	.954	.120	.483	.524	.467	.812	1.135	.150	.543
12	.748	.848	11/16-24UNEF	.530	.457	.812	1.047	.120	.483	.524	.467	.938	1.260	.150	.543
14	.873	.848	13/16-20UNEF	.530	.457	.906	1.141	.120	.483	.524	.467	1.031	1.354	.150	.543
16	.998	.848	15/16-20UNEF	.530	.457	.969	1.234	.120	.483	.524	.467	1.125	1.448	.150	.543
18	1.123	.848	1- 1/16-18UNEF	.530	.457	1.062	1.328	.120	.483	.524	.467	1.203	1.526	.150	.543
20	1.248	1.055	1- 3/16-18UNEF	.650	.561	1.156	1.453	.120	.427	.650	.561	1.297	1.682	.150	.500
22	1.373	1.055	1- 5/16-18UNEF	.650	.561	1.250	1.578	.120	.427	.650	.561	1.375	1.760	.150	.500
24	1.498	1.055	1- 7/16-18UNEF	.683	.594	1.375	1.703	.147	.393	.683	.594	1.500	1.885	.150	.467

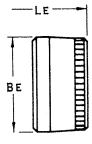
TERMINATION ASSEMBLIES



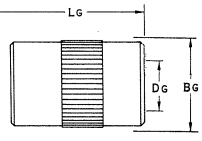
TYPE A



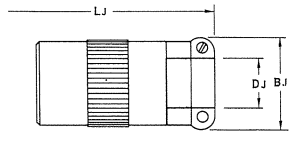
TYPE B AND F



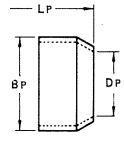
TYPE E



TYPE G



TYPE J



TYPE P

WITH TERMINATION ASSEMBLIES

Shell Size*	TYPE A BA Max.	DA Min.	LA Max.	V Thread Class 2A	TYPE B and F BBF Max.	C Thd.	DBF Min.	GBF Min.	HBF Max.	LBF Max.
▲8	.590	.335	1.444	1/2-28UNEF	.552	6-32	.234	.115	.760	1.776
10	.717	.466	1.444	5/8-24UNEF	.677	6-32	.297	.178	.820	1.776
12	.834	.591	1.444	3/4-20UNEF	.802	6-32	.422	.302	.960	1.776
14	.970	.705	1.444	7/8-20UNEF	.927	6-32	.547	.365	1.070	1.776
16	1.088	.830	1.444	1 -20UNEF	1.052	6-32	.609	.490	1.130	1.896
18	1.216	.948	1.444	1-3/16-18UNEF	1.161	8-32	.740	.615	1.390	1.896
20	1.332	1.073	1.728	1-3/16-18UNEF	1.286	8-32	.740	.615	1.390	1.970
22	1.460	1.198	1.728	1-7/16-18UNEF	1.411	8-32	.928	.740	1.570	1.970
24	1.585	1.323	1.738	1-7/16-18UNEF	1.536	8-32	.984	.790	1.700	1.970

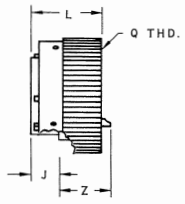
Shell Size*	TYPE E BE Max.	LE Max.	TYPE G BG Max.	DG Min.	DG Max.	LG Max.	TYPE J BJ Max.	DJ Min.	DJ Max.	LJ Max.	TYPE P BP Max.	DP Min.	LP Max.
▲8	.557	1.281	.592	.168	.230	1.720	.828	.168	.230	2.270	.602	.327	1.450
10	.677	1.281	.712	.205	.312	1.720	.891	.205	.312	2.270	.691	.444	1.450
12	.802	1.281	.837	.338	.442	1.860	1.016	.338	.442	2.410	.852	.558	1.450
14	.920	1.281	.995	.416	.539	2.050	1.141	.416	.539	2.600	.956	.683	1.450
16	1.045	1.281	1.080	.550	.616	2.270	1.203	.550	.616	2.880	1.088	.808	1.450
18	1.165	1.281	1.200	.600	.672	2.500	1.469	.600	.672	3.170	1.220	.909	1.450
20	1.290	1.360	1.325	.635	.747	2.960	1.469	.635	.747	3.610	1.349	1.034	1.660
22	1.415	1.360	1.450	.670	.846	3.120	1.656	.670	.846	3.760	1.461	1.159	1.660
24	1.540	1.360	1.575	.740	.894	3.250	1.750	.740	.894	3.900	1.593	1.284	1.730

* See pages 4,5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE
● (MMC) located within .005 of (TP).

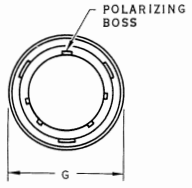
RIGHT ANGLE PLUGS

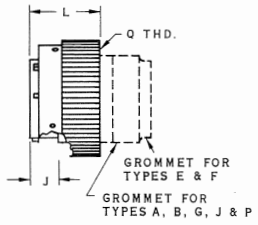
KPT08/KSP08
KPTM08/KSPM08
KPSE08/KSSE08

PLUG ASSEMBLY

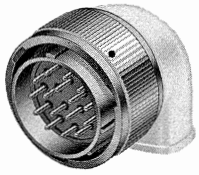


SOLDER
KPT08/KSP08





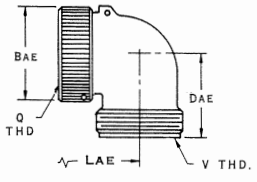
CRIMP
KPTM08/KSPM08
KPSE08/KSSE08



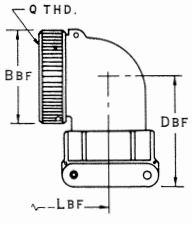
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	G Max.	KPT/KSP/KPTM/KSPM/KPSE/KSSE J ±.005	L Max.	Q Thread Class 2A	KPT/KSP Z Max.
▲8	.730	.358	.844	7/16-28UNEF	.641
10	.850	.358	.844	9/16-24UNEF	.641
12	1.010	.358	.844	11/16-24UNEF	.641
14	1.130	.358	.844	13/16-20UNEF	.641
16	1.260	.358	.844	15/16-20UNEF	.641
18	1.380	.358	.844	1- 1/16-18UNEF	.641
20	1.510	.420	.989	1- 3/16-18UNEF	.584
22	1.630	.420	.989	1- 5/16-18UNEF	.584
24	1.760	.420	.989	1- 7/16-18UNEF	.584

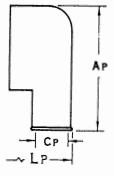
TERMINATION ASSEMBLIES



TYPE A and E



TYPE B AND F



TYPE P

TERMINATION ASSEMBLIES

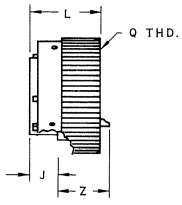
Shell Size*	TYPE A and E BAE Max.	LAE Max.	DAE Max.	V Thread Class 2A	TYPE B and F BBF Max.	DBF Max.	LBF Max.	TYPE P AP Max.	LP Max.	CIP Min.
▲8	.612	1.421	.822	1/2-28UNEF	.612	1.238	1.421	1.030	1.320	.252
10	.742	1.484	.853	5/8-24UNEF	.742	1.269	1.484	1.030	1.320	.252
12	.835	1.546	.916	3/4-20UNEF	.835	1.395	1.546	1.030	1.507	.252
14	.976	1.577	.978	7/8-20UNEF	.976	1.519	1.577	1.030	1.507	.283
16	1.090	1.609	1.041	1 -20UNEF	1.090	1.582	1.609	1.280	1.507	.355
18	1.235	1.734	1.103	1-3/16-18UNEF	1.235	1.644	1.734	1.280	1.695	.530
20	1.367	1.879	1.166	1-3/16-18UNEF	1.367	1.707	1.879	1.530	1.752	.562
22	1.452	2.035	1.245	1-7/16-18UNEF	1.452	1.884	2.035	1.530	1.752	.562
24	1.616	2.035	1.322	1-7/16-18UNEF	1.616	1.963	2.035	1.780	2.027	.610

* See pages 4, 5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE

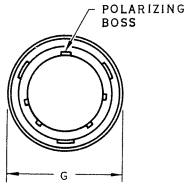
RIGHT ANGLE PLUGS

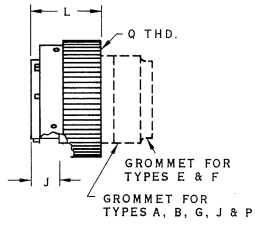
KPT08/KSP08
KPTM08/KSPM08
KPSE08/KSSE08

PLUG ASSEMBLY

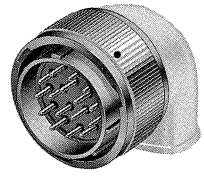


SOLDER
KPT08/KSP08





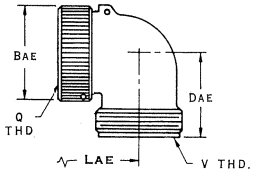
CRIMP
KPTM08/KSPM08
KPSE08/KSSE08



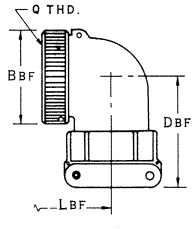
PLUG ASSEMBLY WITHOUT TERMINATION

Shell Size*	KPT/KSP/KPTM/KSPM/KPSE/KSSE G Max.	J ±.005	L Max.	Q Thread Class 2A	KPT/KSP Z Max.
▲8	.730	.358	.844	7/16-28UNEF	.641
10	.850	.358	.844	9/16-24UNEF	.641
12	1.010	.358	.844	11/16-24UNEF	.641
14	1.130	.358	.844	13/16-20UNEF	.641
16	1.260	.358	.844	15/16-20UNEF	.641
18	1.380	.358	.844	1- 1/16-18UNEF	.641
20	1.510	.420	.989	1- 3/16-18UNEF	.584
22	1.630	.420	.989	1- 5/16-18UNEF	.584
24	1.760	.420	.989	1- 7/16-18UNEF	.584

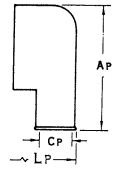
TERMINATION ASSEMBLIES



TYPE A and E



TYPE B AND F



TYPE P

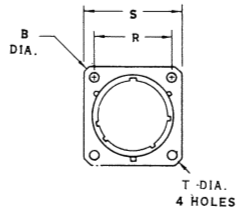
TERMINATION ASSEMBLIES

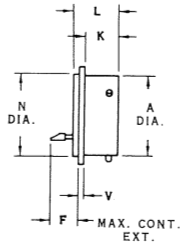
Shell Size*	TYPE A and E BAE Max.	LAE Max.	DAE Max.	V Thread Class 2A	TYPE B and F BBF Max.	DBF Max.	LBF Max.	TYPE P AP Max.	LP Max.	CIP Min.
▲8	.612	1.421	.822	1/2-28UNEF	.612	1.238	1.421	1.030	1.320	.252
10	.742	1.484	.853	5/8-24UNEF	.742	1.269	1.484	1.030	1.320	.252
12	.835	1.546	.916	3/4-20UNEF	.835	1.395	1.546	1.030	1.507	.252
14	.976	1.577	.978	7/8-20UNEF	.976	1.519	1.577	1.030	1.507	.283
16	1.090	1.609	1.041	1 -20UNEF	1.090	1.582	1.609	1.280	1.507	.355
18	1.235	1.734	1.103	1-3/16-18UNEF	1.235	1.644	1.734	1.280	1.695	.530
20	1.367	1.879	1.166	1-3/16-18UNEF	1.367	1.707	1.879	1.530	1.752	.562
22	1.452	2.035	1.245	1-7/16-18UNEF	1.452	1.884	2.035	1.530	1.752	.562
24	1.616	2.035	1.322	1-7/16-18UNEF	1.616	1.963	2.035	1.780	2.027	.610

* See pages 4, 5 and 6 for ordering number information.
▲ Not available in KPSE/KSSE

BOX MOUNTING RECEPTACLES

KPT02H





SOLDER
KPT02H

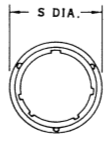
RECEPTACLE ASSEMBLY

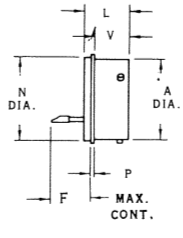
Shell Size*	A +.001 −.005	B Dia.	F Max.	K	L	N +.001 −.005	R	S	T Dia.	V
8	.473	1.062	.344	.438	.546	.562	.594	.812	.120	.062
10	.590	1.250	.344	.438	.546	.672	.719	.938	.120	.062
12	.750	1.375	.344	.438	.546	.781	.812	1.031	.120	.062
14	.875	1.500	.344	.438	.546	.906	.906	1.125	.120	.062
16	1.000	1.625	.344	.438	.546	1.031	.969	1.219	.120	.062
18	1.125	1.750	.344	.438	.546	1.156	1.062	1.312	.120	.062
20	1.250	1.875	.344	.468	.608	1.250	1.156	1.438	.120	.094
22	1.375	2.000	.344	.468	.608	1.375	1.250	1.562	.120	.094
24	1.500	2.250	.320	.500	.673	1.500	1.375	1.687	.147	.094

* See page 7 for ordering number information.

SOLDER MOUNTING RECEPTACLES

KPTIH/MS3113H





SOLDER
KPTIH/MS3113H

RECEPTACLE ASSEMBLY

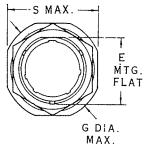
Shell Size*	A +.001 −.005	F Max.	L	N +.001 −.005	P	S Dia.	V
8	.473	.370	.546	.562	.031	.631	.421
10	.590	.370	.546	.672	.031	.756	.421
12	.750	.370	.546	.781	.031	.850	.421
14	.875	.370	.546	.906	.031	.975	.421
16	1.000	.370	.546	1.031	.031	1.100	.421
18	1.125	.370	.546	1.156	.031	1.224	.421
20	1.250	.370	.608	1.250	.031	1.318	.485
22	1.375	.370	.640	1.375	.031	1.444	.485
24	1.500	.340	.673	1.500	.031	1.569	.518

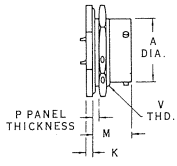
* See page 7 for ordering number information.

Dimensions subject to change

JAM NUT RECEPTACLES

KPT07H /MS3114H





SOLDER
KPT07H/MS3114H

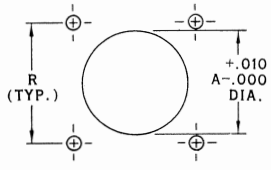
RECEPTACLE ASSEMBLY

Shell Size*	A ±.003	E ±.005	G Max.	K +.001 −.016	M ±.015	P Min.	P Max.	S Max.	V
8	.471	.525	1.078	.094	.711	.062	.125	.954	9/16-24UNEF-2A
10	.588	.650	1.203	.094	.711	.062	.125	1.078	11/16-24UNEF-2A
12	.748	.813	1.391	.094	.711	.062	.125	1.266	7/8-20UNEF-2A
14	.873	.937	1.516	.094	.711	.062	.125	1.391	1-20UNEF-2A
16	.998	1.061	1.641	.094	.711	.062	.125	1.516	1-1/8-18UNEF-2A
18	1.123	1.186	1.766	.094	.711	.062	.125	1.641	1-1/4-18UNEF-2A
20	1.248	1.311	1.954	.125	.899	.062	.250	1.828	1-3/8-18UNEF-2A
22	1.373	1.436	2.078	.125	.899	.062	.250	1.954	1-1/2-18UNEF-2A
24	1.498	1.561	2.203	.125	.927	.062	.250	2.078	1-5/8-18UNEF-2A

* See page 7 for ordering number information.

Mounting Data

PANEL CUTOUTS



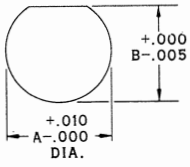
FLANGE MOUNTING RECEPTACLE

Shell Size	KPT/KPTM/KPSE A	KPT/KPTM/KPSE R	KSP/KSPM/KSSE A*	KSP/KSPM/KSSE R	KPT02H/KPT1H A	KPT02H/KPT1H R•
▲8	.449	.594	.563	.724	.565	.594
10	.573	.719	.680	.812	.675	.714
12	.699	.812	.859	.938	.784	.812
14	.823	.906	.984	1.031	.909	.906
16	.949	.969	1.108	1.125	1.034	.969
18	1.073	1.062	1.233	1.203	1.159	1.062
20	1.199	1.156	1.358	1.297	1.253	1.156
22	1.323	1.250	1.483	1.375	1.378	1.250
24	1.449	1.375	1.610	1.500	1.503	1.375

▲ Not available in KPSE/KSSE connectors.
* Applicable for back mounting.
• Not used in KPT1H connectors.

MOUNTING HOLE DIAMETER

Shell Size	KPT/KPTM/KPSE ±.005	KPT/KPTM/KPSE SCREW	KSP/KSPM/KSSE ±.005	KSP/KSPM/KSSE SCREW	KPT02H ±.005	KPT02H SCREW
▲†8	.125	#4	.155	#6	.125	#4
10	.125	#4	.155	#6	.125	#4
12	.125	#4	.155	#6	.125	#4
14	.125	#4	.155	#6	.125	#4
16	.125	#4	.155	#6	.125	#4
18	.125	#4	.155	#6	.125	#4
20	.125	#4	.155	#6	.125	#4
22	.125	#4	.155	#6	.125	#4
24	.155	#6	.155	#6	.155	#6



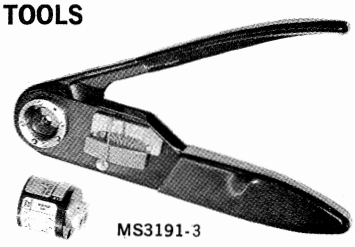
JAM NUT RECEPTACLE

Shell Size	KPT/KSP/KPTM/KSPM KPSE/KSSE A	KPT/KSP/KPTM/KSPM KPSE/KSSE B	KPT07H A	KPT07H B•
▲8	.578	.542	.567	.531
10	.703	.669	.692	.656
12	.890	.830	.880	.819
14	1.015	.955	1.005	.943
16	1.140	1.084	1.130	1.067
18	1.265	1.208	1.255	1.192
20	1.390	1.333	1.380	1.317
22	1.515	1.459	1.505	1.442
24	1.640	1.584	1.630	1.567

▲ Not available in KPSE/KSSE connectors.
• B dimension tolerance for KPT07H is +.010/—.000.

Components and Accessories

CRIMP TOOLS

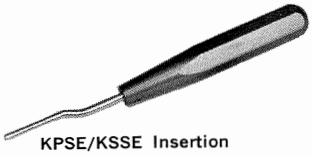


MS3191-3

Connector Series	TOOL
KPTM/KSPM KPSE/KSSE	MS3191-3* or CCT-2016-20

* With color-coded locators: red for #20, blue for #16 and yellow for #12.

INSERTION/EXTRACTION TOOLS



KPSE/KSSE Insertion

KPSE/KSSE Extraction

KPTM/KSPM Extraction

KPTM/KSPM

Contact Size	Insertion	Extraction
20 without insulation support	CIT-20-18	CET-20-4
20 with insulation support	CIT-20-5A	CET-20-4
16	CIT-16-1	CET-16-3A

KPSE/KSSE

Contact Size	Insertion MS	Extraction MS	Extraction ITT Cannon
20	MS24256A20	MS24256R20	CET-20-9A
16	MS24256A16	MS24256R16	CET-16-11A

CONTACTS

KPTM/KSPM
KPSE/KSSE

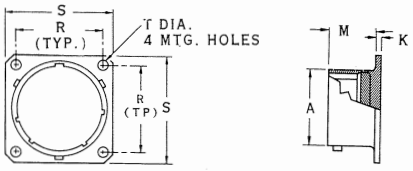
Size/Type	KPTM/KPSE MS	KSPM/KSSE ITT CANNON
20 socket	MS3193A20A	031-9074-002
20 pin	MS3192A20A	030-9036-000
16 socket	MS3193-16A	031-9095-003
16 pin	MS3192-16A	031-9032-003
12 socket	—	—
12 pin	—	—

WIRE HOLE FILLERS/ GROMMET SEALING PLUGS

KPTM/KPSE

Contact Size	Color Code	KPTM/KSPM KPSE/KSSE
22	White	—
20	Red	MS3187A20
16	Blue	MS3187-16
12	Yellow	MS3187-12

DUMMY RECEPTACLES



ORDERING NUMBER

MS 3115 10 A
KPT 15 8 A

- A — standard; B — large (not MS) — **Flange:**
- **Shell Size**
- **Dummy Receptacle**
- **Prefix**

Shell Size TYPE A	Shell Size TYPE B	TYPE A and B: A ±.003	K ±.016	M +.015 −.016	TYPE A — Std. Flange: R (TP)	S Max.	T Dia.	TYPE B — Large Flange: R (TP)	S Max.	T Dia.
*- 8A	- 8B	.471	.062	.478	.594	.828	.120	.734	1.063	.150
*-10A	-10B	.588	.062	.478	.719	.954	.120	.812	1.141	.150
*-12A	-12B	.748	.062	.478	.812	1.047	.120	.938	1.266	.150
*-14A	-14B	.873	.062	.478	.906	1.141	.120	1.031	1.360	.150
*-16A	-16B	.998	.062	.478	.969	1.234	.120	1.125	1.454	.150
*-18A	-18B	1.123	.062	.478	1.062	1.328	.120	1.203	1.532	.150
*-20A	-20B	1.248	.094	.572	1.156	1.453	.120	1.297	1.688	.150
*-22A	-22B	1.373	.094	.572	1.250	1.578	.120	1.375	1.766	.150
*-24A	-24B	1.498	.094	.605	1.375	1.703	.147	1.500	1.891	.150

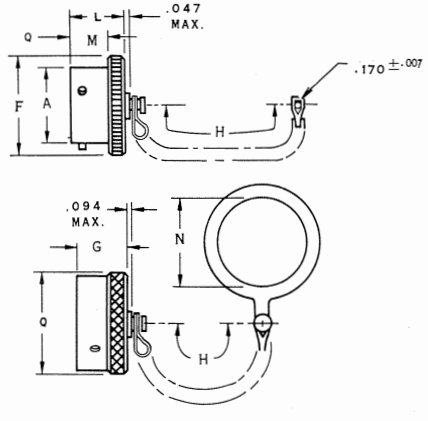
* Add prefix KPT15 or MS3115.

● MMC located within .005 of (TP).

PROTECTIVE CAPS

STANDARD MATERIALS AND FINISHES

	KPT/KPSE/MS	KSP/KSSE
Protective Cap	aluminum alloy, olive drab finish, per QQ-P-416	alumium alloy, hard black anodize Alumilite non-conductive finish
Bead Chain	brass, olive drab finish	brass, black nickel finish
Sash Chain	stainless steel	stainless steel
Ring/Rivet	stainless steel	stainless steel
Gasket	neoprene per MIL-STD-417	neoprene per MIL-STD-417



80—cap for plugs

81—cap for receptacles

ORDERING NUMBER

KPT 81 - 12 C ●
MS 3180 - 10

- **Modification.** Consult factory.
- **Termination Style:** no letter — without chain; C — sash chain; B — bead chain; N — sash chain with ring (81 or 3181 only); R — bead chain with ring
- **Size:** 10 thru 24
- **Type:** 80 or 3180 — plug cap; 81 or 3181 — receptacle cap
- **Prefix:** KPT, KSP, MS — use KPT for KPSE/KPTM; use KSP for KSSE/KSPM

Shell Size*	A ±.003	F Max.	G Max.	H ±.250	L Max.	M +.015 −.016	N Min.	Q Max.
*- 8**	.471	.719	.562	3.000	.562	.384	.578	.719
*-10**	.588	.844	.562	3.000	.562	.384	.703	.812
*-12**	.748	1.000	.562	3.500	.562	.384	.891	1.000
*-14**	.873	1.125	.562	3.500	.562	.384	1.016	1.125
*-16**	.998	1.250	.562	3.500	.562	.384	1.141	1.250
*-18**	1.123	1.375	.562	3.500	.562	.384	1.266	1.375
*-20**	1.248	1.500	.562	4.000	.625	.446	1.391	1.500
*-22**	1.373	1.625	.562	4.000	.625	.446	1.516	1.625
*-24**	1.498	1.750	.602	4.000	.658	.479	1.641	1.750

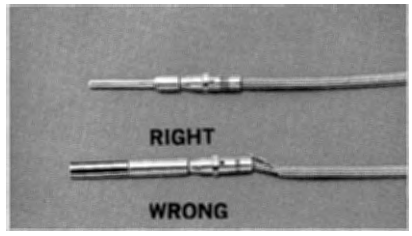
* Add prefix: KPT, KSP, or MS and add type:
80 for plug cap, 81 for receptacle cap; 3180 for MS plug cap, 3181 for MS receptacle cap.

** Add termination style; see part number explanation above.

Dimensions subject to change

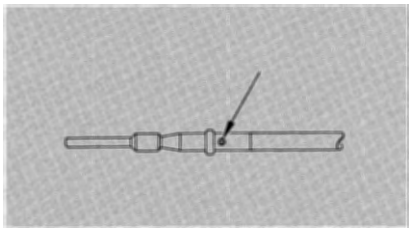
Contact Size	Wire Size AWG	Strip Insulation
20	#20-#24	3/16"
16	#20-#20	1/4"

CRIMPING CONTACTS
1. Strip wires according to the table above taking care not to cut or nick strands.

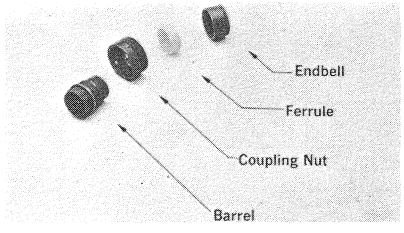


2. Insert stripped wire into contact crimp pot. Wire must be visible thru inspection hole.

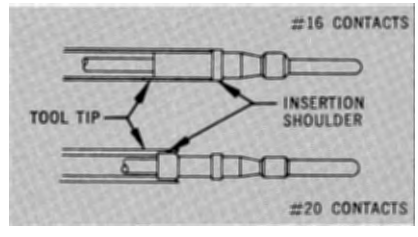
3. Using correct crimp tool and locator; cycle the tool once to be sure the indentors are open. Insert contact and wire into locator. Squeeze tool handles firmly and completely to insure a proper crimp. The tool will not release unless the crimp indentors in the tool head have been fully actuated.



4. Release crimped contact and wire from tool. Be certain the wire is visible thru inspection hole in contact.

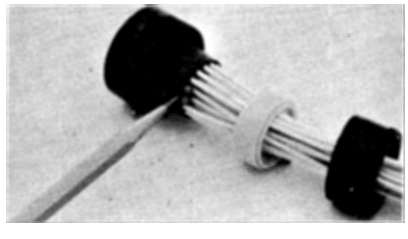


CONTACT INSERTION
5. Remove hardware from plug and receptacle. Slide hardware over wire bundle in proper order for re-assembly.



6. Use the proper contact insertion tool, and slide the tool over the terminal end of the contact. The size 16 contact lies in the tool and the tool tip butts against the contact shoulder. The rear, or insulation support, of the size 20 contact butts against an internal shoulder in the tool tip.

7. Beginning from center cavity and working outwards, insert wired contacts into rear of connector by hand until the front of the contact shoulder is no more than $\frac{1}{8}$" from the grommet. Holding the connector securely, position tool behind contact. Push tool straight into contact cavity until contact snaps into position. A light pull on wire will assure that contact is locked securely. Repeat for remaining contacts.

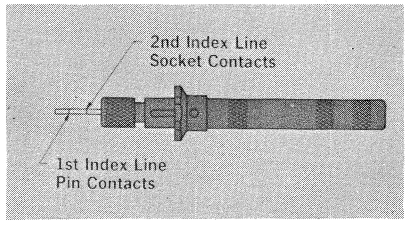


8. Use wire hole fillers or grommet sealing plugs to fill any empty cavities and assemble hardware to rear of plug or receptacle.

COMPLETION
9. Check face of plug or receptacle for proper contact installation.

CONTACT EXTRACTION
10. Slide hardware back over wire bundle. Using proper extraction tool or extraction end of proper insertion/extraction tool, proceed as follows:

KPTM: Make sure reversible tool tip is set for pin or socket contacts. Place tool tip over contact from front of insulator and, with slow and even pressure, push contact out of back of insulator.



KPSE: Use the proper extraction tool. There are two lines on the clip sleeve which are vital to the contact removal process. The first index line is used for removing pin contacts while the second index line is for removing socket contacts.

Carefully place the tool tip over the contact to be extracted until the tool tip touches the insulator face. Carefully rotate the tool until the index line is slightly below the insulator face. Keep an even pressure against tool body; push plunger forward with thumb and index finger, and push the contact out through the clip. Carefully remove extraction tool from connector. Pull the wire by hand to complete the removal of the contact.

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