



# ITT

Interconnect Solutions  
Cannon, VEAM, BIW

Defining innovative  
aviation, military, and  
industrial circulars since the DC-1,  
over 70 years ago



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# Cannon KPT/KPSE MIL-C-26482 Series I Connectors



## Introduction

The miniature circular connectors series KPT and KPSE from ITT Cannon conform to meet the performance specification of MIL-C-26482 with three point bayonet coupling and five-keyway polarization. They offer general purpose solder connectors and high performance crimp connectors. The broad product range provides the most complete family of connectors that conform to Mil-C-26482 and VG95328 performance specifications.

The versatility of these connectors has been proven by their usage in general as well as in high performance environmental applications.

In addition to the basic series presented in this section, connectors for special applications are available. They include corrosion resistant types, filter connectors for electromagnetic compatibility, and non-outgassing radiation resistant versions.

All connectors conform to the above mentioned performance specifications and are fully interchangeable and accept a wide range of interchangeable accessories. Thereby design modifications can be achieved more easily and at a lower cost with connectors of the KPT/KPSE series.

## KPT General purpose solder contact connectors



### KPT General purpose solder contact connectors

- General purpose
- Solder termination
- Closed entry socket contacts

Series KPT from ITT Cannon offers general purpose connectors used in military applications, but also widely used in industrial applications calling for a circular connector with fixed contacts for solder termination.

The KPT series conforms to meet the performance specifications of MIL-C-26482 and is interchangeable with all connectors according to the above specifications. VG95328H is also interchangeable with the KPT and MIL-C-26482, see page A-62



**A**

Circular

## Technical Data

| Material and Finishes | KPT                                                                                                                         | KPSE                      |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Shell                 | Aluminum alloy, conductive olive drab chromate over cadmium finish per QQ-P-416<br>Contact Factor for other plating options |                           |
| Insulator             | Polychloroprene                                                                                                             | Polychloroprene           |
| Grommet and Seal      | Polychloroprene                                                                                                             | Polychloroprene           |
| Contacts              | Copper alloy, gold plated                                                                                                   | Copper alloy, gold plated |

### MECHANICAL

Shell Sizes 00 - wall mounting receptacle  
 01 - cable connecting plug  
 02 - box mounting receptacle  
 06 - straight plug  
 07 - jam nut receptacle  
 08 - 90° angle plug  
 B - thru-bulkhead receptacle  
 (KPT only)

Shell Sizes KPT 8 thru 24  
 KPSE 10 thru 24

Polarization/Coupling: five keyway/three point bayonet

Service Classes A - general duty  
 B - general duty with strain relief  
 E - grommet seal  
 F - grommet seal with strain relief  
 J - gland nut with strain relief for jacketed cable  
 P - potted

Environmental Sealing Acc. to VG95319 Part 2, Test No. 5.9.2. For styles A to E and J to W, Z1, Z2 and Z3 and gaskets style A and B only  
 Test pressure 0,2 bar overpressure  
 Test temperature 25 ± 3°C  
 Test duration 48 h  
 The connector shall be free of moisture  
 See 26482 specification

Operating temperature -55 / 125°C

### Electrical Data

|                     |            |            |
|---------------------|------------|------------|
| Number of contacts  | 2 thru 61  | 3 thru 61  |
| Wire Size AWG       | 16 thru 24 | 12 thru 24 |
| Contact termination | Solder     | Crimp      |

| Contact rating | Size AWG | Rated current A | Test current A | Millivolt drop mV |
|----------------|----------|-----------------|----------------|-------------------|
|                | 20       | 7.5             | 7.5            | less than 55      |
|                | 16       | 13.0            | 13.0           | less than 50      |
|                | 12       | 23.0            | 23.0           | less than 42      |

Insulation resistance ⊕ 5000 MW

|                                                                                            |              |               |                 |      |                                                                                                        |
|--------------------------------------------------------------------------------------------|--------------|---------------|-----------------|------|--------------------------------------------------------------------------------------------------------|
| Service rating                                                                             | Test voltage | Service class | Vrms            | VDC  | With scoop proof connectors<br>operating voltages acc.<br>to MIL-C-26482 and<br>VG 96912 are permitted |
|                                                                                            | Sea level    | 1             | 1500            | 2100 |                                                                                                        |
| Exception:                                                                                 |              | 2             | 2300            | 3200 |                                                                                                        |
| Service rating between<br>the central contact and<br>the housing of the<br>coaxial contact | 21336 m      | 1             | 375             | 535  |                                                                                                        |
|                                                                                            | (70 000 ft)  | 2             | 550             | 770  |                                                                                                        |
| Operating voltage                                                                          |              |               |                 |      |                                                                                                        |
| Service class                                                                              |              |               | VG 95328        |      | MIL-C-26482                                                                                            |
| 1                                                                                          |              |               | 140 VDC/100 VAC |      | 850 VDC/600 VAC                                                                                        |
| 2                                                                                          |              |               | 165 VDC/115 VAC |      | 1400 VDC/1000 VAC                                                                                      |

Operating voltage and connector usage Connectors are equipment which must not be separated or mated when under load conditions. When the connectors will be operated with line voltage, please consult factory.



A

Circular

## KPT General purpose solder contact connectors

| How to order              | MS<br>KPT | 3112<br>02 | E<br>E | 22<br>22 | -<br>- | 55<br>55 | P<br>P | W<br>W | •<br>• |
|---------------------------|-----------|------------|--------|----------|--------|----------|--------|--------|--------|
| SERIES PREFIX             |           |            |        |          |        |          |        |        |        |
| SHELL STYLE               |           |            |        |          |        |          |        |        |        |
| CLASS                     |           |            |        |          |        |          |        |        |        |
| SHELL SIZE                |           |            |        |          |        |          |        |        |        |
| CONTACT ARRANGEMENT       |           |            |        |          |        |          |        |        |        |
| CONTACT TYPE              |           |            |        |          |        |          |        |        |        |
| ALTERNATE INSERT POSITION |           |            |        |          |        |          |        |        |        |
| MODIFICATION CODE         |           |            |        |          |        |          |        |        |        |

### SERIES PREFIX

KPT -ITT Cannon prefix  
KPTR -ITT Cannon RoHS prefix (U.S. version)  
MS-MIL-DTL 26482 prefix

### SHELL STYLE

ITT Cannon designation  
00 -wall mounting receptacle  
01 -cable connecting receptacle  
02 -box mounting receptacle (class E only)  
06 -straight plug  
07 -jam nut receptacle  
08 -90° angle plug  
B - thru bulkhead receptacle, see page A-49

### MS DESIGNATION

3110 - Wall mounting receptacle  
3111 - Cable connecting receptacle  
3112 - Box mounting receptacle (Class E only)  
3114 - Jam nut receptacle  
3116 - Straight plug

### CLASS

A -general duty (not MS approved)  
B -general duty with strain relief (not MS approved) without grommet and ferrule  
E -with a grommet seal, not for 02 and 3112 (MS specification)  
F -grommet seal with strain relief (MS specification)  
J -watertight gland seal with strain relief (MS specification) for jacketed cable (U.S. version)  
P -for potting (MS specification U.S. version)  
PG - PG adapter (not available for shell #8)  
ME - Metric adapter (not available for shell #8)

### SHELL SIZES

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

### CONTACT ARRANGEMENTS

see page A-41

### CONTACT TYPE

P -Pin S -Socket

### ALTERNATE INSERT POSITION

W, X, and Z (omit for normal), see page A-42

### MODIFICATION CODE

A34 - Electroless nickel hardware, RoHS compliant (European version)  
A71 - Electroless nickel hardware (U.S. version RoHS compliant after 11/1/07))  
A206 - Black zinc cobalt hardware (U.S. version, RoHS compliant)  
A232 - Black zinc cobalt hardware (European version, RoHS compliant)  
A233 - Green zinc cobalt hardware (European version)  
A408 - Extended Life Contact - Gold over Nickel  
DN - Shrink boot adapter for shell styles 00, 01, 06 and 07 (Class E only)  
DZ - Endbell for shielding braids and shrink boots. (Class E only)  
07 - Clear chromate over cadmium hardware (U.S. version)  
16 - Lanyard release (applicable to plug only) (U.S. version)  
23 - Ground springs (applicable to plug only)  
F42 - connectors without endbell and related components

|                            |                             |
|----------------------------|-----------------------------|
| P9 = PG9 for shell #10     | M12 = M12x1,5 for shell #10 |
| P11 = PG11 for shell #12   | M16 = M16x1,5 for shell #12 |
| P13 = PG13,5 for shell #14 | M20 = M20x1,5 for shell #14 |
| P16 = PG16 for shell #16   | M25 = M25x1,5 for shell #16 |
| P21 = PG21 for shell #18   | M25 = M25x1,5 for shell #18 |
| P21 = PG21 for shell #20   | M25 = M25x1,5 for shell #20 |
| P21 = PG21 for shell #22   | M32 = M32x1,5 for shell #22 |
| P29 = PG29 for shell #24   | M32 = M32x1,5 for shell #24 |

Consult factory for other modifications. Omit first digit (0) of shell style indication when using a modification code.



Dimensions shown in inches (mm)  
Specifications and dimensions subject to change

www.ittcannon.com