HIGH-PERFORMANCE MIL-C-83733 QUALIFIED
Temperature Ranges of - 65 C to +200 C
Environment - Resistant

The Cannon DPK series are high performance environment- resistant, rectangular connectors qualified to MIL-C-83733 (USAF). They feature crimp snap-in contacts in the dependable LITTLE CAESAR' rear release contact retention assembly. This field-proven assembly permits contacts to be inserted and extracted at the rear of the connector. Contacts are qualified to military specifcations and are crimped with MIL-C-22520 crimp tools, using standard locators.
The versatile DPK Connector is suitable for many applications, particularly where environment or thermal protection is mandatory and high reliability is a design requirement.

These high performance connectors are available in two shell sizes with a variety of mounting configurations. There are 13 contact arrangements available accommodating from 18 to 185 standard contacts. The standard contacts are available in sizes 12, 16, 20 and 220. Shells are a die-cast aluminum alloy with eiectroless nickel finish. Insulators are a high grade, glass reinforced, resin conforming to MIL-M-14 which meets or exceeds the requirements of MIL-C-83733. Silicone rubber is used for wire sealing grommets, interfacial and peripheral seals.

How To Order

MIL-C-83733 (USAF) Nomenclature

M	83733/4	R	B	101

MILITARY PART NUMBER INDICATOR
BASIC SPECIFICATION
SPECIFICATION SHEET NUMBER
CLASS: R - ENV IRONMENT RESISTANT
SHELL SIZE
CONTACT ARRANGEMENT

ITT Cannon Nomenclature

DPK	A	-	G	131	P	*	G	-	7	F0
DPK	B	-	G	185	S	*	K	-	7	F0

SERIES PREFIX
ITT CANNON DESIGNATION
SHELL SIZE
CONTACT MODIFICATION
CONTACT ARRANGEMENT
CONTACT TYPE
POLARIZATION (applicable to mounting style A)
CONNECTOR MOUNTING STYLE CONNECTOR
MATERIALS PER MIL-C-83733
FURNISHED LESS CONTACTS
(will not be stamoed an connector).

SHELL SIZE
A - Small shell
B - Largge shell
CONTACT MODIFICATION
G-MIL-C-38999 contacts. Size 22D for DPKA-131 and OPKB-185 contact arrangements only.
W-MIL-C-38999 type contacts. Size 22D wrap posts for DPKA-131 and DPKB-185 layouts. .025 (0.63) square posts for .340(8.64); extension from grommet face.

CONTACT ARRANGEMENT
Shell Size A-1 8. 32, 51 and 131 (MIL-STD-1 531).
Shell Size B-48, 64, 78, 101 59W7, 71, 71C15, 161 and 185 (MIL-STO-1532).

CONTACT TYPE
P-Pin (Receptacle Connectors)
S-Socket (Plug Connectors)

POLARIZATION
Six-position shell polarization accomplished with Polarizing pins mounted on each end of shell flange. Available on mounting style A only.

MOUNTING STYLES
A - Two mounting holes .197(5.00) diameter (for either nuts or jackscrews ordered separately) and two polarizing posts. (Replaces Mounting Style B.)
C - Four MS24700-2 bushings, included for the receptacle (M83733/5).

F - Four (4) clinch nuts jNo. 6-32 thread) M83733/6.

G - Four .281(7.14) diameter holes (for MS24700-2 bushings or 231-0019-000 spring mounts) (M83733/1).
H- Two mounting hole flange. Two (231-0019-000) spring mounts on the plug and two MS24700-2 bushing mounts on the receptacle (M83733/10/12).
K - Four captivated, non-rotating spring mounts an the plug (M83733/4).
M- Two mounting hole flange. Two mounting holes .281(7.14) diameter (for MS24700-2 bushings or 231-0019-000 spring mounts) (M83733/9).

X - Two guide pins with two (231-0019-000) spring mounts on the plug and two guide sockets with two .197(5.00) diameter holes on the receptacle (M83733/2; /3)
Y - Two guide sockets with two (231-0019-000) spring mounts on the plug and two guide pins with .197(5.00) diameter holes on the receptacle (M83733/7; /8).
Z - Two staggered clinch nuts an the receptacle (No. 6-32 thread) (MB3733/11).

MATERIAL MOOIRCATION
- 7 standard product line, environment resistant per MIL-C-83733(USAF). QPL M83733

Performance and Material Specifications

MATERIALS

Shell	Diecast aluminum alloy A-380 per QQ-A-591
Insulator	Thermosetting Plastic/Thermoplastic
Contacts	Copper allowy per QQ-C-533
Grommets and Seals	Silicone base elastomer
Mounting hardware	Stainless stell/Alloy steel

FINISHES

Shell	Electroless nickel plate per MIL-C-26074, Class 3
Contacts	Gold over suitable underplate per MIL-C-39029
Hardware	Passivate/Cadmium plate

MECHANICAL FEATURES

Shell Sizes	A (DPKA); B (DPKB)
Coupling	Friction, spring mount or jackscrew-coupling nut
Contact Arrangements	A-18,32,51,g131 B-48,64,78,101,59W1,71C15,161, G185
Contact Termination	Crimp

ELECTRICAL

Number of contacts: 18 thru 185		Sealing Range Wire Diameter	
Contact Sizes	Wire Accommodation (AWG)	Min.	Max.
22D	22,24,26	.030(0.76)	.060(1.52)
20	20,22,24	.040(1.02)	.083(2.11)
16	16,18	.063(1.60	.103(2.62)
12	12,14	.081(2.06)	.158(4.01)
12 Shielded	RG-179/U	.081(2.06)	.158(4.01)

Max. current carrying capacity of contacts

Contact Size:	#12	#16	#20	#22
Amperage:	23	13	7.5	5.0

Test Voltages (AC-RMS)

Altitude (feet)	Equivalent Pressure (Torr)	Service Ratings (M&I)				
		Mated		Unmated		Unmated 161 Arrangement
		M	I	M	I	
Sea level	-	1300	1800	1300	1800	1000
50,000	87.5	800	1000	550	600	350
70,000	35.5	800	1000	350	400	250
110,000	5.74	800	1000	200	200	150

Cross Reference From Military to Cannon Part Numbers

MIL-SPEC P/N	ITTC P/N	MIL-SPEC P/N	ITTC P/N	MIL-SPEC P/N	ITTC P/N	MIL-SPEC P/N	ITTC P/N
M83733/1RA018	DPKA-18PG-7	M83733/4RA018	DPKA-18SK-7	M83733/7RA018	DPKA-18SY-7	M83733/10RA018	DPKA- 18PH-7
M83733/1RA032	DPKA-32PG-7	M83733/4RAO32	DPKA-32SK-7	M83733/7RA032	DPKA-32SY-7	M83733/10RA032	DPKA-32PH-7
M83733/1RA051	DPKA-51PG-7	M83733/4RA051	DPKA-51SK-7	M83733/7RA051	DPKA-51SY-7	M83733110RA051	DPKA-51PH-7
M83733/1RA131	DPKA-G131PG-7	M83733/4RA131	DPKA-G131 SK-7	M83733/7RA131	DPKA-G131SY-7	M83733/10RB048	DPKB-48PH-7
M83733/1RB048	DPKB-48PG-7	M8373314RA048	DPKB-48SK-7	M83733/7RB048	DPKB-48SY-7	M83733/10RB064	DPKB-64PH-7
M83733/1RB064	DPKB-64PG-7	M8373314RB064	DPKB-64SK-7	M83733/7RB064	DPKB-64SY-7	M83733/10RB071	DPKB-71PH-7
M83733/1RB071	DPKB-71PG-7	M83733/4RB071	DPKB-71SK-7	M83733/7RB071	DPKB-72SY-7	M83733/10RB71C	DPKB-71C15PH-7
M83733/1RB71C	DPKB-71C15PG-7	M83733/4RB71C	DPKB-71Cl 5SK-7	M83733/7RB71C	DPKB-71C15SY-7	M83733110RB078	DPKB-78PH-7
M83733/1RB078	DPKB-78PG-7	M83733/4RB078	DPKB-78SK-7	M83733/7RB078	DPKB-78SY-7	M83733110RB101	DPKB-101PH-7
M83733/1RB101	DPKB-101PG-7	M83733/4RB101	DPKB-101 SK-7	M83733/7RB101	DPKB-101 SY-7	M83733/11RA018	DPKA-18PZ-7
M83733/1RB185	DPKB-Gl85PG-7	M83733/4RB185	DPKB-G185SK-7	M83733/BRA018	DPKA-18PY-7	M83733/11RA032	DPKA-32PZ-7
M83733/2RA018	DPKA-18SX-7	M83733/5RA018	DPKA-18PC-7	M83733/BRA032	DPKA-32PY-7	M83733/11RA051	DPKA-51PZ-7
M83733/2RA032	DPKA-32SX-7	M83733/5RA032	DPKA-32PC-7	M83733/BRA051	DPKA-51PY-7	M83733/11RB048	DPKB-48PZ-7
M83733/2RA051	DPKA-51SX-7	M83733/5RA051	DPKA-51PC-7	M83733/8RB048	DPKB-48PY-7	M83733/11RB064	DPKB-64PZ-7
M83733/2RA131	DPKA-Gl 31 SM	M83733/5RA131	DPKA-G131 PC-7	M83733/8RB064	DPKB-64PY-7	M83733/11RB071	DPKB-71PZ-7
M83733/2RB048	DPKB-48SX-7	M83733/5RB048	DPKB-48PC-7	M83733/8RB071	DPKB-71PY-7	M83733/11RB71C	DPKB-71C15PZ-7
M83733/2RB064	DPKB-64SX-7	M83733/5RB064	DPKB-64PC-7	M83733/8RB71C	DPKB-71Cl 5PY-7	M83733/11RB078	DPKB-78PZ-7
M83733/2RB071	DPKB-71SX-7	M83733/5RB71C	DPKB-71C15PC-7	M83733/BRB078	DPKB-78PY-7	M83733/11RB101	DPKB-101 PZ-7
M83733/2RB71C	DPKB-71C15SX-7	M83733/5RB078	DPKB-78PC-7	M83733/8RB101	DPKB-101PY-7	M83733/12RA018	DPKA-18SH-7
M83733/2RB078	DPKB-78SX-7	M83733/5RB101	DPKB-101PC-7	M83733/9RA018	DPKA-IBPM-7	M83733/12RA032	DPKA-32SH-7
M83733/2RB101	DPKB-101SX-7	M83733/5RB185	DPKB-G185PC-7	M83733/9RA032	DPKA-32PM-7	M83733/12RA051	DPKA-51SH-7
M83733/3RA018	DPKA-18PX-7	M83733/5RB071	DPKB-71PC-7	M83733/9RA051	DPKA-51 PM-7	M83733/12RB048	DPKB-48SH-7
M83733/3RA032	DPKA-32PX-7	M83733/6RA018	DPKA-18PF-7	M83733/9RB048	DPKB-48PM-7	M83733/12RB064	DPKB-64SH-7
M83733/3RA051	DPKA-51PX-7	M83733/6RA032	DPKA-32PF-7	M83733/9RB064	DPKB-64PM-7	M83733/12RB071	DPKB-71SH-7
M83733/3RA131	DPKA-G131PX-7	M83733/6RA051	DPKA-51PF-7	M83733/9RB071	DPKB-71PM-7	M83733/12RB71C	DPKB-7lCl5SH-7
M83733/3RB048	DPKB-48PX-7	M83733/6RA131	DPKA-G131 PF-7	M83733/9RB71C	DPKB-11C15PM-7	M83733/12RB078	DPKB-78SH-7
M83733/3RB064	DPKB-64PX-7	M83733/6RB048	DPKB-48PF-7	M83733/9RB078	DPKB-78PM-7	M83733/12RB101	DPKB-101SH-7
M83733/3RB071	DPKB-71PX-7	M83733/6RB064	DPKB-64PF-7	M83733/9RB101	DPKB-101PM-7		
M83733/3RB71C	DPKB-71C15PX-7	M83733/6RB071	DPKB-71PF-7				
M83733/3RB078	DPKB-78PX-7	M83733/6RB71C	DPKB-71C15PF-7				
M83733/3RB101	DPK- 101PX-7	M83733/6RB078	DPKB-78PF-7				
M83733/3RB185	DPKB-G185PX-7	M83733/6RB101	DPKB-101 PF-7				
		M83733/6RB185	DPKB-G185PF-7				

Test Data

The following is a presentation of the certified capabilities of Cannon's DPK, high performance, rectangular, rack and panel series connectors with respect to critical qualification performance and design requirements of MIL-C-83733. The data presented herein is a condensation of authentic qualification test data extracted from the original qualification reports on file at the ITT Cannon Test Laboratory.

The successful completion of the conducted qualification program clearly demonstrates the compliance of ITT Cannon, DPK series connectors and contacts to meet or exceed the performance requirements of MIL-C-83733.

Identification of Qualification Specimens
The DPK connectors listed below represent the description and identification of the test specimens subjected to the qualification test sequence of MIL-C-83733.

DPKA-G-131PC-7 (Receptacle) DPKB-G185PC-7 (Receptacle)
DPKA-G131SK-7 (Plug) DPKA-G185SK-7 (Plug)
DPKA-G-131PC-7 (Receptacle) DPKB-G185PC-7 (Receptacle)

Table I below, lists the conducted tests executed in accordance with the applicable test paragraphs of MIL-C-83733, with the Test Level, Parrameter Limits and Measured Values listed in Table 11.

TABLE 1 TEST PERFORMED

Test Description	Test Description	Test Description	Test Description
Examination Of Product	Contact Separating Forces	Low Leve Contact Resistance	Moisture Resistance
visual Examination	Connector Mating and Unmating Forces	Thermal Shock	Altitude Immersion
Sample Preparation	Contact Retention	Crimp Potential Drop	Insert Retention
Insulation Resistance - 25 C	Endurance	Vibration (Random)	Corrosion
Withstanding Voltage - Sea Level	Gold Plating Porosity	Physical Shock	Analyses
Withstanding Voltage - Altitude	Temperature Life	Ozone Exposure	Service and Storage Life
Contact Resistance	Insulation Resistance - 200 C	Fluid Immersion	Gases and Toxic or Corrosive Fumes

TABLE II

Test or Environment	Test Level or Special Requirments	Parameters Limits	Measured Values or Comments
Examination Of Product visual Examination Sample Preparation Insulation Resistance - 25℃ Withstanding Voltage - Sea Level Withstanding Voltage - Altitude Contact Resistance	Assure compliance with: a) Applicable detail specifications and control drawings b) Materials c) Design and construction d) Dimensional e) Finish f) Product identification g) Workmanship	Compliance to applicable detail specification and control drawings.	Product submitted accompanied by Q.A.certifiates of compliance. complied with the applicable acceptance requirements for qualification testing.
VISUAL EXAMINATION	Visual examination of qualification test specimens for completness, workmanship, identification and /or other detrimental conditions.	Visual examination acceptance.	No visible detection of any condition detrimental to normal function.
SAMPLE PREPARATION	MIL-W-16878/4A, 28 AWG (min. dia.) and 22 AWG (max. dia.) wire. Daniels WA22A crimping tool. M22520/2-06 and M22520/2-09 contact positioner for resp.22D size socket and pin. MS7495A22M insertion and MS27495R22M removal tool.	Assemblies to conform with specified wiring and termination requirements.	Qualification test specimens prepared and terminated in accordance with specified wiring requirements. No difficulties encountered during wiring operation.
INSULATION RESISTANCE [25℃ (77 F)]	Unmated condition. 50% of contact complement measured. Between adjacent contact paris and each contact and connector shell.	5.1 Gigohms minimum at 500 Vdc. Electrification Time 120 secs. maximum.	Insul. res. range (ohms) (25℃) DPKA Adj. Cont. Cont./Shell 300G-1.0T 1.1T-1.8T DPKB 400G-1.6T 1.1T-20T (Ganged parallel test circuits)
DIELECTRIC WITHSTANDING VOLTAGE (SEA LEVEL)	Unmated condition. 50% of contact complement measured. Test voltage 1350 Vac/rms-60hz, applied between adjacent contact pairs and each contact and connector shell.	No electrical breakdown, flashover or excessive current leakage.Electrification 2 secs. minimum.	No evidence of breakdown or flashover Leakage <.5mA. (Ganged Parallel test circuits)
SALT SPARY (CORROSION)	Method 101, test condition B. (48 hours) unmated. Salt soultion 5% by weight. S.G. 1.026 to 1.040 at 22.8℃-23.9℃ (73℉-75℉). Solution pH6.5 to 7.2 and chamber temp 33.9℃ to 36.1℃ (93℉ to 97℉).	Visual examination. No degradation of normal connector functions.	No detrimental corrosive attack on connector's surface finish or contacts.
CONTACT RESISTANCE [AT 25℃ AND 200℃ (77 F AND 392 F)]	Mated condition 20% of contact complement tested. Test circuit per Fig. 2 measured across points YY performed at 25℃ and 200℃ (77℉ and 392℉). Contact/ Wire size: Test Current Adc 22D/28: 1.5 22D/22: 5.0	Max. Voltage Drop (MV) Wire Size: 25℃ (77 F): 200℃ (392 F) 28: 8: 19 22: 14: 25	MV-Drop Range. (25 C) Wire Size: Adc: Range (mV): Avg. (mV) 28: 1.5: 2.3-5.2: 3.8 22: 5.0: 6.3-10: 8.2 (200℃) 28: 1.5: 9-17: 11.8 22: 5.0: 16-21: 17.8
CONTACT SEPARATING FORCES	100% of socket contact complement measured. Separating force measured on steel test pin .0294 +.0001 (0.747 +O.002) dia. insertion depth .205 (5.21) min. from insert face.	Separating Force (ounce-force) Min.: Max. 0.6: 4.9	Separating force range (ounce-force) DPKA Sep. Force: Avg. Force 1.3-4.1: 2.4 DPKB 1.0-2.9: 2.0
CONNECTOR MATIN AND UNMATING FORCES	Mating dept, .390 (9.91) panel spacing. Total of 10 cycles mating and unmatings. Forces measured on 10th cycle.	Axial mating and unmating forces 175 pounds-force maximum.	Mating/Unmating Force (pound-force) Mate: Unmated DPKA: 145: 34 DPKB: 150: 72 Forces obtained on 10th cycle.
CONTACT RETENTION	Unmated. 50% of contacts measured. 10.0 1bf applied to contact engaging end. Zero reference at 2.0 1bf preload. Displacement measured under spec. load.	Max. contact displacement under 10.0 1bf load .011 (0.28) maximum.	Contact Displacement Range (inch) DPKA: Avg. Pins: 0.002-0.003: 0.0027 Sockets: 0.002-0.004: 0.0031 DPKB Pins: 0.002-0.004: 0.0027 Sockets: 0.002-0.003: 0.0026
ENDURANCE (DURABILITY)	Mating dept, .450 (11.43) panel spacing. Total of 500 cycles mating and unmating at a rate of 300 cycles/hour maximum.	Withstand 500 cycles of durability conditioning without detrimental effects to function.	

Test Data (Continued)

(TABLE II Continued)

Test or Environment	Test Level or Special Requirments	Parameters Limits	Measured Values or Comments
THERMAL SHOCK	Mated condition. Five continuous cycles of temperature change. 30 mins. exposure at each temp. extreme constitutes one cycle. Transfer time between chambers 2 mins. max. temp. extremes: - 54 ± 3 C and 200 ± 3 C (-?? +_ 5.4 F and 392 ± 5.4 F).	Compliance to applicable detail specification and control drawings.	Product submitted accompanied by Q.A.certifiates of compliance. complied with the applicable acceptance requirements for qualification testing.
CRIMP POTENTIAL DROP	20% of the contacts in each connector measured. Test circuit per Fig. 2 measured across points X-X and X'-X'. Contact/Wire-size — Test Current (Adc) 22D/28 — 1.5 22D/22 — 5.0	Max. crimp potential drop: Wire Size — M.V. 28 — 2.8 22 — 7.0	Crimp mV drop range. DPKA (sockets) Adc — Range — Avg. 1.5 — 1.7-2.1 — 1.8 (Pins) 1.5 — 1.1-1.6 — 1.3 DPKB (sockets) Adc — Range — Avg. 5.0 — 1.8-2.4 — 2.1 (Pins) 5.0 — 1.4-1.8 — 1.5
DIELECTRIC WITHSTANDING VOLTAGE (ALTITUDE)	Mated condition. 50% of contact complement measured. Performed at simulated altitude of 70,000 ft. (33.7 min Hg pressure) Test voltage 825 Vac/rms-60 Hz, applied between adjacent contact pairs and each contact and connector shell.	Same as at sea level conditions.	No evidence of breakdown or flashover. Leakage <.5mA. (Ganged Parallel test circuits)
INSULATION RESISTANCE ELEVATED TEMP.[200`C (392 F)]	Umnated condition. 50% of contact complement measured. Test points identical to those measured at 25 C (77 F). Oven ambient controlled at 200 C (392 F). Stabilization period 30 minutes minimum.	204 Megohms minimum at 500 Vdc. Electrification time 120 sets. maximum,	Insul. Res. range (ohms) [200 C (392 F)] DPKA Adj. Cont. — Cont./Shell 1.4G-10G — 2.4G-4.0G DPKB 0.75G-10G — 2.26G-5.0G (Ganged parallel test circuits)
VIBRATION (RANDOM)	Method 214, Test condition 11. Letter 'G'. Test level envelope per figure and table 214-2. Contact circuit senes wired far current discontinuity monitoring. Eight hours duration in each of three mutually peipendicuiar axes. Connector mating depth .450 (11.43) panel spacing.	No current discontinuity) 1.0 microsec. No cracking, breaking or loosening of connector parts.	Connectors met random vibration requirements. No electrical discontinuity detected.
PHYSICAL SHOCK	Mated condition, .450 111.43) panel spacing. Shock pulse duration I I ± 1 mS, waveshape terminal peak smooth, peak amplitude 20g. Contact circuit series wired for current discontinuity monitoring. One shock pulse in each of three mutually perp. axes.	No current discontinuity) 1.0 microsec. No cracking, breaking or loosening of connector parts.	Connectors met physical shock requirenments. No electrical discontinuity or damage detected.
MOISTURE RESISTANCE	Method 106, (Step 7b) ommed) Mated condition. 10 days humidity and temperature cycling. At end Step 6 final cycle at 25 C (777) and 90-98% RH insulation resistance in asured 100% between each and ail other contacts and the shell in parallel circuit.	Insulation resistance at final humidity cycle 102 Megohms minimum at 50 Vdc.	Insul. Res. range (ohms) final humidity cycle. DPKA — DPKB 1.66-500G — 1.6-500G Avg: 224G — Avg: 190G
ALTITUDE IMMERSION	Mated condition. Immersed in 5% sail solution by weight. Unsealed wire ends exposed to chamber atmosphere. Simulated test altitude 75,000 ft, (1.0 inch Hg). 30 mins. at altitude followed by 15 arms. at room ambient, Repeat for total of 3 cycles. Insul. res. and OWV measured 100% of contact complement at room ambient and submerged.	Insulation resistance 1.2 Gigohm minimum at 5 Vdc. DWV 1350 Vac/rms - 60 Hz, electrification time 60 secs. minimum. No breakdow, flashover or leadage 2 mA,	Final insul. Res ranges (ohms). DPKA — DPKB 1.5T-4.5T — 0.7-3.5T Avg. 1.9T — Avg: 1.3T DWV - No evidence of insert movement and /or dislocation from normal position
INSERT RETENTION	Unmated. 46 lbf/in.₂ pressure lead applied to each inert face at 5 1bl/in. ₂/sec.. maintained for 5 secs. min. at specified load.	No insert disiocation from normal position in the connector shell.	No evidence of insert movement and/or dislocation from normal position.
OZONE EXPOSURE	Unimated. Ozone concentration 0.010 to 0.015 percent by volume. Exposure period 2 hours minimum at room temperature.	No derterioration.	No evidence of ozone effects.
FLUID IMMERSION	Fluid immersion rest fluids and procedures per Table 4: Sample No. — Test Fluid 4-1P/R — MIL-L-7808 4-2P/R — MIL-L-23699 4-3P/R — M2-V CHEVRON 4-4P/R — MIL-H-5606 4-5P/R — MIL-A-8243 4-6P/R — MIL-C-25769 4-7P/R — MIL-T-5624 (JP-5) 4-8P/R — Coolanol-25 4-9P/R — Regular (Leaded commercial auto-gasoline 4-10P/R — Solvent (a) MIL-STD-202) 4-11P/R — Solvent (b) MIL-STD-202) 4-12P/R — Solvent (c) MIL-STD-202)	No detrimental damage of effects to connector performance. Axial Mate and unimate forces after fluid immersion 175 1bf max.	Other than evidence of normal light swelling of the connector resilent seals, the samples did not exhibit any dertirmental affects. Mateability was not imparied. After Fluid Immersion Mating/Unmating forces (Pound-Force) DPKA — Mate — Unmated — DPKB — Mate — Unmated 4-1P/R — 125 — 27 — 4-7P/R — 138 — 71 4-2P/R — 125 — 31 — 4-8P/R — 141 — 57 4-3P/R — 127 — 35 — 4-9P/R — 137 — 63.5 4-4P/R — 132 — 35 — 4-10P/R — 145 — 76 4-5P/R — 132 — 63 — 4-11P/R — 150 — 81 4-6P/R — 123 — 55 — 4-12P/R — 148 — 86
GOLD PLATING POROSITY	Unwired. wouisembled contact bodies. One part (by volume) concentrated Nitric Acid (S.G.-l.42) to we part distilled water. 30 secs. minimum immersion period.	No visible reaction (bubbles forming) to reagent.	No evidence of reaction to reagent.
TEMPERATURE LIFE W/CONTACT LOADING	Wired mated condition, with contacts under specific load: #220 (5 lbs.); #16 112.5 Ilisil. A current of 100 MA was applied during life of test. Test duration, 1000 hours at temperature of + 200 C (392*9).	Withstand temp life. No damage. No discontinuity higher than 1.0 microsecond. No contact dislodging order load.	No evidence of contact dislodging and/or electrical disconinuity of 1.0 miscrosecond or greater during the speified temperature life exposure under contact loading conditions. All post test requirements were met.

Conclusion

All subject test specimens, connector components, materials, accessories and contacts covered by this report satisfied and/or exceeded the specified requirement.

The successful completion of the qualification program as reported herein, demonstrates the capabilities of the subject ITT Cannon DPK series connectors to comply with stringent verification qualification requirements in accordance with MIL-C-83733. On the basis of testing, the DPK connector series was granted full OPI status to MIL-C-83733.

Weights

The following are weights for DPK connector assemblies, mounting hardware, contacts, and sealing plugs. All connector weights are listed less contacts (FO) and mounting hardware. The total connector weight is obtained by adding mounting hardware, contacts, and sealing plugs weight to the connector assembly weight.

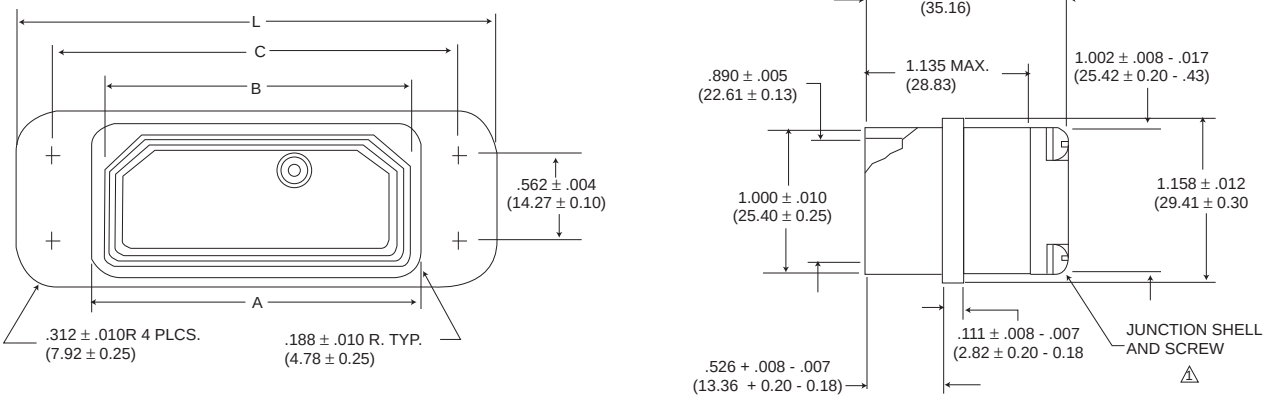
Example:
DPKB-101SK-7 (with 90 contacts and 11 sealing plugs)

	Weight Pounds	Weight Grams
DPKB-101SG-7-FO	.2332	105.78
Type K Spring Mount	.0825	37.42
90 Number 20 Socket Contacts	.0639	28.98
11 Number 20 Sealing Plugs	.0020	.88
Maximum Connector Weight	.3816	173.06

Part Numbet (Description)	Maximum Weight Lbs.	Grams
DPKA-18PG-7-F0	.1474	66.86
DPKA- I 8SG-7-F0	.1496	67.86
DPKA-32PG-7-F0	.1496	57.86
DPKA-18SG-7-F0	.1518	68.86
DPKA-51PG-7-F0	.1529	69.35
DPKA-51SG-7-F0	.1551	70.35
DPKA-G131PG-7-F0	.1045	47.40
DPKA-G131SG-7-F0	.1077	48.85
DPKB-48PG-7-F0	.2398	108.77
DPKB-48SG-7-F0	.2486	112.76
DPKB-59W7PG-7-F0	.2354	106.78
DPKB-59W7SG-7-F0	.2442	110.78
DPKB-64PG-7-F0	.2354	106.78
DPKB-64SG-7-F0	.2442	110.78
DPKB- 71 PG-7-F0	.2288	103.78
DPKB-71SG-7-F0	.2332	105.78
DPKB-71C1 5PG-7-F0	.2288	103.78
DPKB-71C1 5SG-7-F0	.2332	105.78
DPKB-78PG-7-F0	.2266	102.78
DPKB-78SG-7-F0	.2288	103.78
DPKB-1O1PG-7-F0	.2288	103.78
DPKB-101SG-7-F0	.2332	105.78
DPKB-GI 85PG-7-F0	.1628	73.85
DPKB-G1 85SG-7-F0	.1650	74.85
#12 Pin, 030-9185-003	.00298	1.353
#12 Skt, 030-9186-003	.00291	1.318
#16 Pin, 030-9205-007	.00135	.611
#16 Skt, 030-9206-006	.00146	.664
#20 Pin. 030-9173-006	.00062	.280
#20 Skt, 031-9174-004	.00071	.322
#220 Pin, 030-2042-000	.00021	.093
#220 Skt, 031-1147-000	.00025	.111
#12 Shielded Pin, 249-1825-001	.00206	.943
#12 Shielded Skt, 249-1826-000	.00258	1.168
#8 Coaxial Pin, 59W7 Layout	.00420	1.910
#8 Coaxial Skt, 59W7 Layout	.00650	2.948
Type C Bushing, 012-0515-000 (4 reqd)	.00606	2.750
Type K Spring Mtg Captive (non-rotate)	.08250	37.42
Type F Nut (4 reqd)	.00072	.325
Type G Spring Mtg 231-0019-000 (4 reqd)	.01180	5.350
Size 22; 225-1013-000	.00006	.027
Size 20; 225-0070-000	.00018	.080
Size 16; 225-0071-000	.00036	.163
Size 12; 225-0072-000	.00064	.291
SEALING PLUGS		

Receptacle (Pin Contacts)

BASIC RECEPTACLE SHELL DIMENSIONS



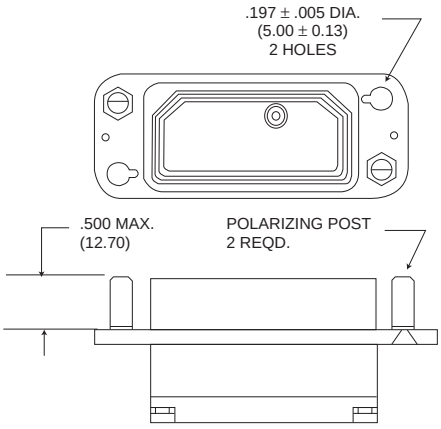
⚠1 Junction shell and screws are not supplied on - G131 and -G185 layouts.

SHELL SIZE	A	B	C	L	N Staggered
	2.085 (52.96)	1.976 (50.19)	2.580 (65.58	3.030 (76.96)	2.150 (54.61)
DPKA*P**	2.072 (52.63)	1.961 (49.81)	2.570 (65.38)	3.000 (76.20)	2.130 (54.10)
	3.385 (85.98)	3.281 (83.34)	3.880 (98.53)	4.330 (109.98)	3.450 (87.63)
DPKB*P**	3.372 (85.65)	3.261 (82.83)	3.870 (98.32)	4.300 (109.22)	3.430 (87.12)

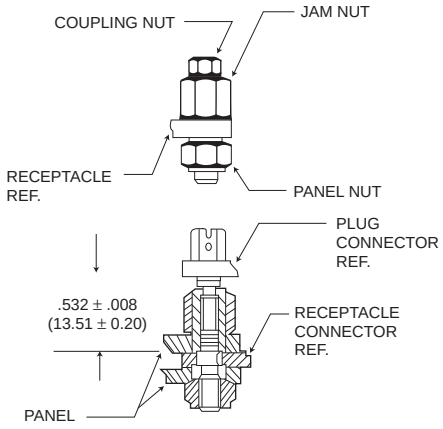
See Page 81 Style M and Z

DPK TYPES

Mounting Style A

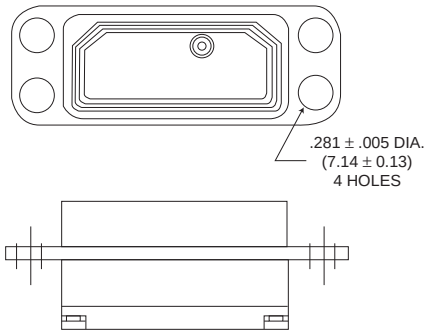


Mounting Dimensions for Coupling Nut Assemblies

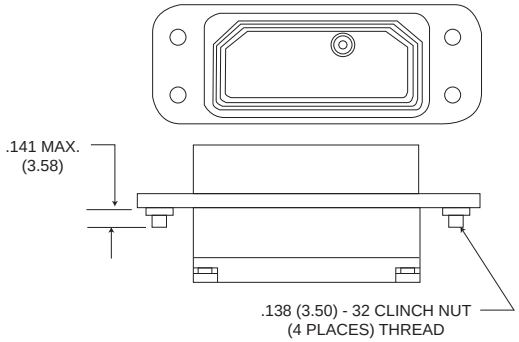


DPK/Mil-C-83733 TYPES

Mounting Style G
Standard Hole Mounting MIL-C-83733/1(USAF)



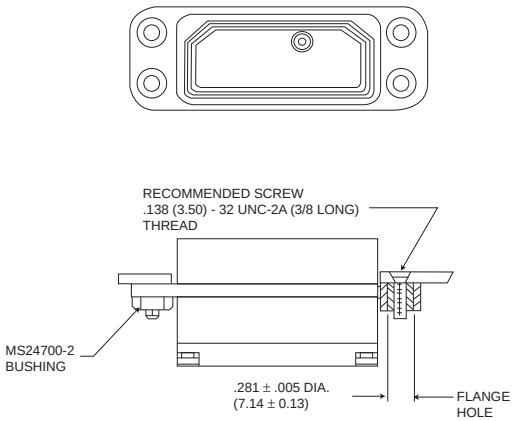
Mounting Style F Clinch Nut Mounting
MIL-C-83733/6(USAF)



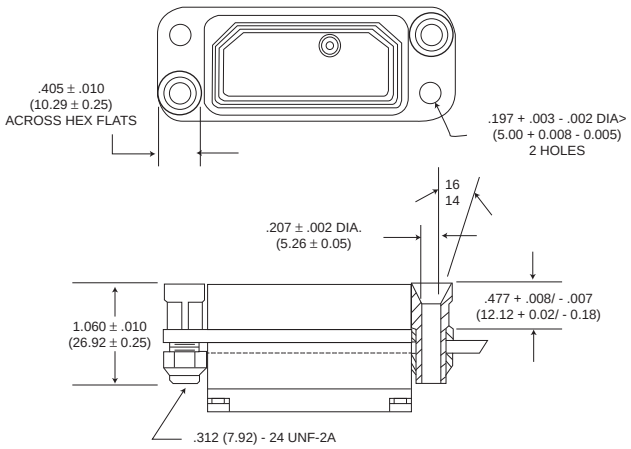
Receptacle/Configurations (Pin Contacts)

DPK/MIL-C-83733 TYPES

Mounting Stye C
Bushing Mounting MIL-C-83733/5(USAF)

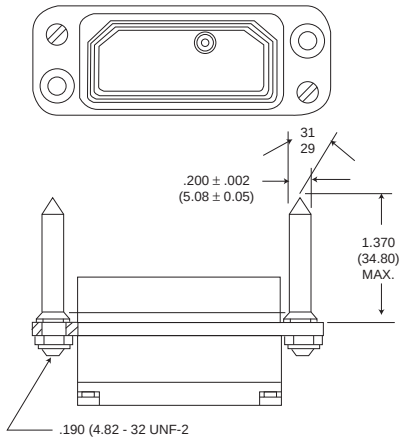


Mounting Stye X
With Guide Sockets MIL-C-83733/3(USAF)

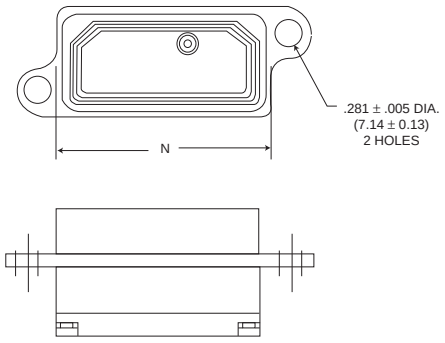


DPK/MIL-C-83733 TYPES

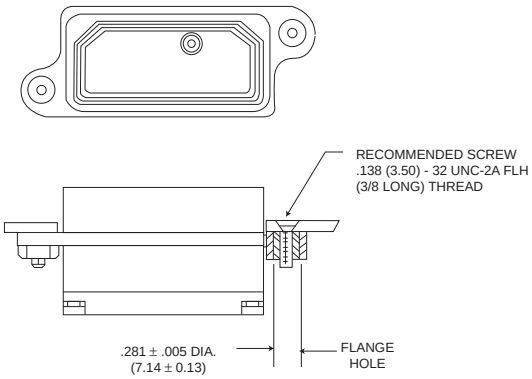
Mounting Stye Y
With Guide Pins MIL-C-83733/8(USAF)



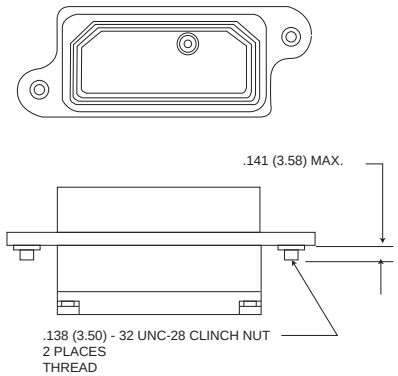
Mounting Stye M
Staggered Standard Hole Mounting MIL-C-83733/9(USAF)



Mounting Stye H
Staggered Bushing Mounting MIL-C-83733/10(USAF)

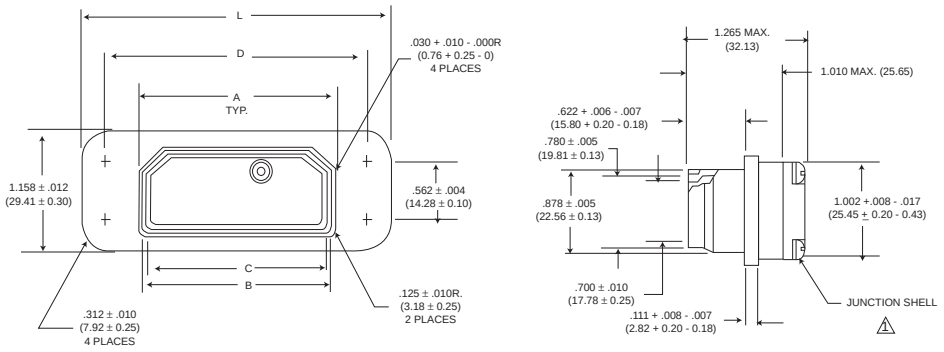


Mounting Stye Z
Staggered Clinch Nut Mounting MIL-C-83733/11(USAF)



Pluge/Configurations (Socket Contacts)

Basic Plug
Shell Dimensions

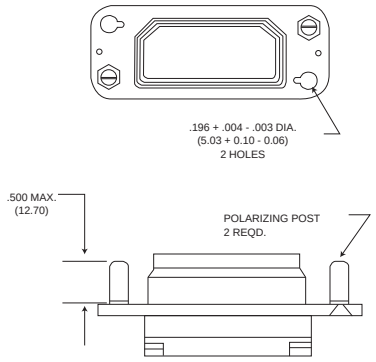


SHELL SIZE	A	B	C	D	L	N Staggered
	1.959 (49.76)	1.864 (47.35)	1.780 (45.21)	2.580 (65.53)	3.030 (76.96)	2.150 (54.61)
DPKA*P**	1.946 (49.43)	1.853 (47.07)	1.763 (44.78)	2.570 (65.28)	3.000 (76.20)	2.130 (54.10)
	3.259 (82.78)	3.164 (80.37)	3.080 (78.23)	3.880 (96.52)	4.330 (109.98)	3.450 (87.63)
DPKB*P**	3.246 (82.45)	3.153 (80.09)	3.063 (77.80)	3.870 (98.30)	4.300 (109.22)	3.430 (87.12)

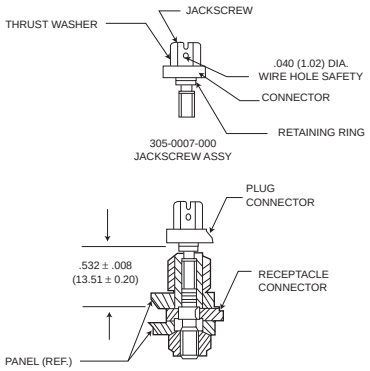
Junction shell and hardware are not supplied on -G131 and -G185 layouts.
See page 83 Style M and H

DPK Styles

Mounting Style A

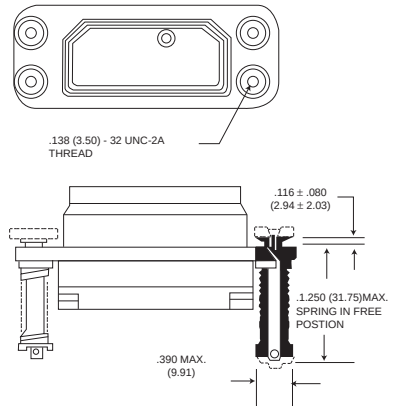


Mounting Spacing Dimensions
For Jackscrew Assemblies



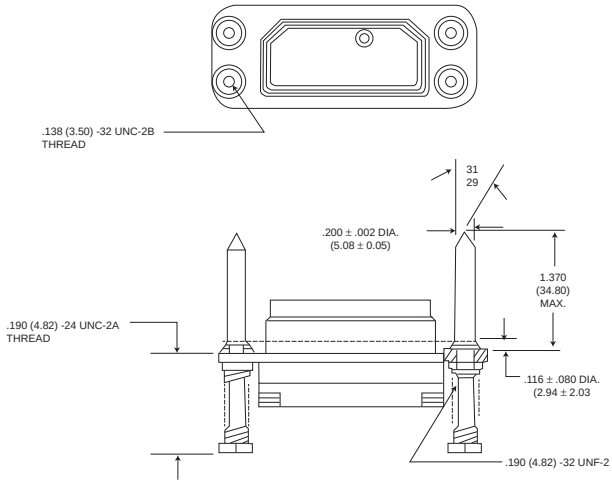
DPK/MIL-C-83733 TYPES

Mounting Style K - MIL-C-83733/4(USAF)
With Captive Springs



NOTES: 1. Springs are pre-loaded to 25 pounds each in free position.
2. Spring forces will be 118 pounds minimum at .500 (12.70) panel spacing and 176 pounds maximum at .390 (9.91) panel spacing

Mounting Style X - MIL-C-83733/2(USAF)
With Guide Pins and Spring Mounting

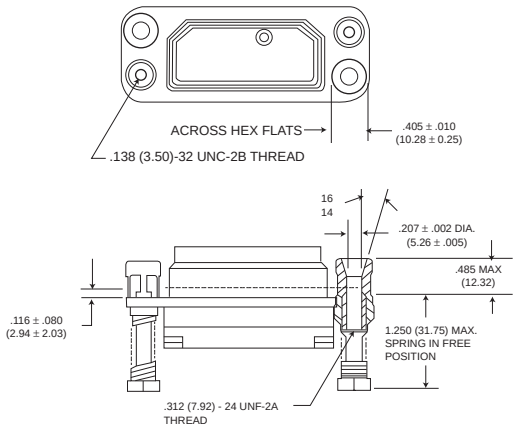


NOTES: 1. Springs are pre-loaded to 25 pounds each in free position.
2. Spring forces will be 118 pounds minimum at .500 (12.70) panel spacing and 176 pounds maximum at .390 (9.91) panel spacing
3. This configuration must not be used on teh 131 or 185 contact layouts.

Pluge/Configurations (Socket Contacts)

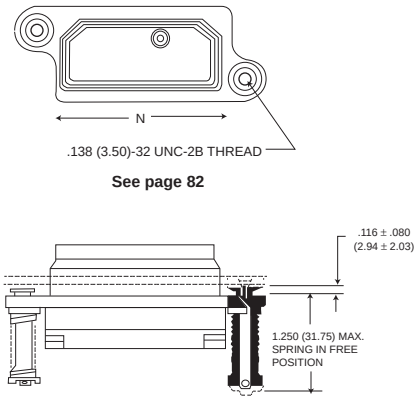
DPK/MIL-C-83733 TYPES

Mounting Style Y - MIL-C-83733/7(USAF)
With Guide Sockets and Spring Mounting



NOTES: 1. Springs are pre-loaded to 25 pounds each in free position.
2. Spring forces will be 118 pounds minimum at .500 (12.70) panel spacing and 88 pounds maximum at .390 (9.91) panel spacing

Mounting Style H - MIL-C-83733/7(USAF)
Staggered Spring Mounting

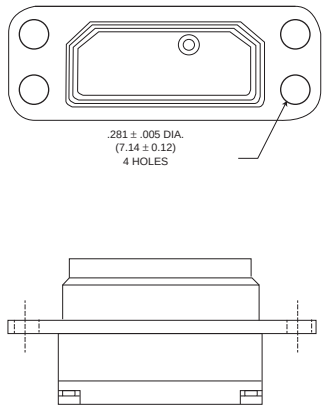


See page 82

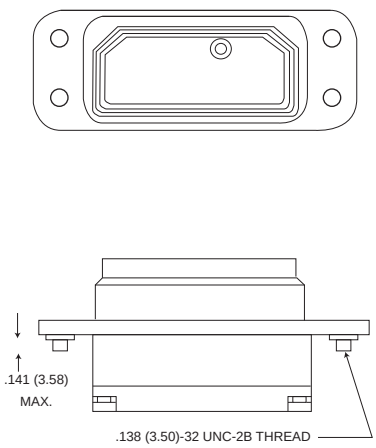
NOTES: 1. Springs are pre-loaded to 25 pounds each in free position.
2. Spring forces will be 118 pounds minimum at .500 (12.70) panel spacing and 88 pounds maximum at .390 (9.91) panel spacing
3. This configuration must not be used on teh 131 or 185 contact layouts.

DPK Commercial Types

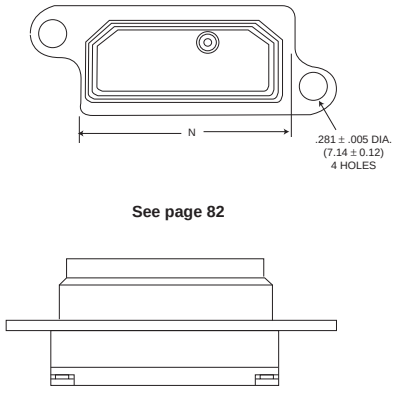
Mounting Style G
Standard Hole Mounting



Mounting Style F
Clinch Nut Mounting



Mounting Syle M
Mounting



See page 82

Mounting Styles/Applications

DPK connectors for rectangular or staggered mounting are available in both two- and four-spring mount assemblies, or the same shelf style may be o rdered to accommodate bushing assemblies. In the spring mount version the spring-loaded mechanism will compensate for a panel space variation of up to .070(1.78) while insuring electrical and environmental integrity.

DPK connectors are also available with polarizing posts, accommodations for jackscrews, and coupling nuts for cord-to-card and cord-to-panel applications. Another shelf style has two or four mounting holes fitted with captive clinch nuts.
For mounting dimensions of the various mounting styles shown here please refer to page 87.

Style A
Mounting style A is designed for cord-to-panel and c ord-to-cord applications. Connectors are supplied with two polarizing posts installed and provisions for installation of two jackscrew assemblies or two coupling nut assemblies. (Replaces Mounting Style B.)

Plug
Socket Contacts

Receptacle
Pin Contacts

Ordered Separately

Jackscrew Assembly
305-0007-000

Coupling Nut Assembly
335-0002-000

Stylle C
Mounting style C is designed for cord-to-panel or rack-to-panel applications. Connectors are supplied with (4) MS24700-2 bushings on the receptacle and 4 spring mount assemblies on the plug.

M83733/5

Receptacle
Pin Contacts

Supplied with Connector

Bushing MS247000-2
(Self-Locking
012-0515-000

Spring Mount Assembly
MIL-C-83733/17
231-00019-000

Style F
Mounting Style F is designed for rack-to-panel pplications. Connectors are supplied with four captive clinch nuts installed.

M83733/6

Receptacle
Pin Contacts

Style G "Z
Mounting style G is designed for rack-to-panel applications. Connectors are supplied with four .281(7.14) diameter holes which will accommodate either four MS24700-2 bushings or four 231-0019-000 spring mounts,

Plug
Socket Contacts

M83733/1

Receptacle
Pin Contacts

Ordered Separately

Bushing MS247000-2
(Self-Locking
012-0515-000

Spring Mount Assembly
MIL-C-83733/17
231-00019-000

Style H
Mounting style H is designed for rack-to-panel applications. Connectors are supplied with two .281(7.14) diameter holes which are staggered. Two spring mounts are on the plug end two MS24700-2 bushings are on the receptacle.

M83733/12

Plug
Socket Contacts

M83733/10

Receptacle
Pin Contacts

Supplied with Connector

Bushing MS247000-2
(Self-Locking
012-0515-000

Spring Mount Assembly
MIL-C-83733/17
231-00019-000

Style K
Mounting style K is designed for rack-to-panel a pplications. Connectors are supplied with four c aptivated, non-rotating spring mounts on the plug.

M83733/4

Plug
Socket Contacts

Style M
Mounting style M is designed for rack-to-panel applications. Connectors are supplied with two .281 (7,14) diameter holes which are staggered and will accommodate eight two MS24700-2 bushings or two 231-0019-000 spring mounts.

Plug
Socket Contacts

M83733/9

Receptacle
Pin Contacts

Ordered Separately

Bushing MS247000-2
(Self-Locking
012-0515-000

Spring Mount Assembly
MIL-C-83733/17
231-00019-000

Style X
Mounting sty~le X is designed for rack-to-panel applications where positive alignment is required before connectors are mated. Plug has two guide pins and two spring mounts (MIL-STO-1533); receptacle has two guide sockets and two .197 (5.00) dia. holes.

M83733/2

Plug
Socket Contacts

M83733/3

Receptacle
Pin Contacts

Jackscrew Assembly
305-0007-000

Coupling Nut Assembly
335-0002-000

Style Y
Mounting style Y is identical to mounting style X, Xcept the guide sockets are on the plug and the guide pin and springs are on the receptacle.

M83733/7

Plug
Socket Contacts

M83733/8

Receptacle
Pin Contacts

Supplied with Connector

Guide Pins
226-0348-000

Guide Sockets
226-0349-000

Style Z
Mounting style Z is designed for use in rack-10 panel applications. Connectors are supplied with two captive clinch nuts which are staggered.

M83733/11

Receptacle
Pin Contacts

MIL-C-83733/DPK Mounting Style

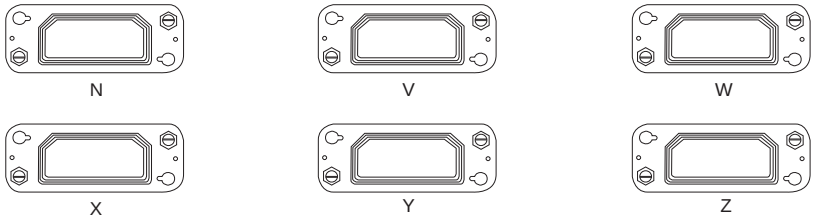
MIL-C-83733 Connector Type	DPK Mtg. Style	Mating MIL-C-83733 Connector	DPK Mtg. Style
M83733/1 RECEPTACLE	G	M83733/4	K
M83733/2 PLUG	X	M83733/3	X
M83733/3 RECEPTACLE	X	M83733/2	X
M83733/4 PLUG	K	M83733/1	G
		M83733/5	C
		M83733/6	F
M83733/5 RECEPTACLE	C	M83733/4	K
M83733/6 RECEPTACLE	F	M83733/4	K
M83733/7 PLUG	Y	M83733/8	Y
M83733-08 RECEPTACLE	Y	M83733/7	Y
M83733/-09 RECEPTACLE*	M	M83733/12	H
M83733/-10 RECEPTACLE*	H	M83733/12	H
M83733/-11 RECEPTACLE*	Z	M83733/12	H
M83733/2 RECEPTACLE	H	M83733/9	M
		M83733/10	H
		M83733/11	Z

*Not recommended for G131 and G185 layouts.

Polarization (Mounting Style A only)

Polarizing Post Alternate Positions

Pin inserts polarizing postitions are 180 opposite socket insert polarizing positions. Shaded areas indicate extended portion of the polarizing post. Cord to panel DPK connectors are available in 35 alternate polarizing positions by changing indexing of the polarizing posts. Keystone corners and hexagonal posts provide this wide range of alternate positions.
Face view of socket insert plug connector engaging end.



Contact Data

Standard Contacts

Contact Size	Type	Cannon Part Number	MIL-C-39029 Military Part Number	Crimp Tool	Insertion/ Extraction Tool	Grommet Sealing Plug Part Number (Color)
12	Pin Skt.	030-9185-003 037-9186-003	M39029/4-113 M39029/5/118	M22520/1-01 with	MIL-I-81969/14-04	225-0072-000 (Yellow)
16	Pin Skt.	030-9205-007 031-9206-006	M39029/4-111 M39029/5-116	M22520/1-02 Turret	MIL-I-81969/14-03	225-0071-000 (Blue)
20	Pin Skt.	030-9173-006 031-9174-004	M39029/4-110 M39029/5-115	M22520/2-01 with M22520/2-02 Turret	MIL-I-81969/14-11	225-0070-000 (Red)
22	Pin Skt.	030 -1975-008 031-1113-008	M39039/11-144 M39029/12-148	M22520/2-01 with M22520/2-23 Turret	MIL-I-81969/14-01	
22D	Pin Skt.	030-2042-000 031-1147-000	M39029/58-360 M39029/57-354	M22520/2-01 with M22520/2-06 (Socket) Turret M22520/2-09 (Pin) Turret	MIL-I-81969/14-01	225-1013-000 (Black)

Coaxial/Shielded Contacts

Coaxial	Type	Prefix	Cannon Part Number	Cable Accom.	DWV Voltage	Min./Max. O.D. Wire Accom.	Crimp Tool	Ins./ Ext. Tool	Grommet Sealing Plug Part Number (Color)
Coaxial Contacts* 59W7 Arrangement Only	Plug Receptacle	G G	249-5500-012 249-5500-013	RG-316	500 VDC	.122 (3.10) .250 (6.35)	CCTC8 Outer M22520/2-01 M22520/2-30	Cet-C8	225-0085-00 (White)
	Plug Receptacle	F F	249-5500-010 249-5500-011	RG-180/U	500 VDC	.122/250	CCTC9 Outer M22520/2-01 M22520/2-30	Cet-C8	

Plug coaxials go into plug connectors (59W7S inserts with socket contacts). Receptacle coaxials go into receptacle connectors ("P" inserts) with pin contacts (59W7P inserts with pin contacts).

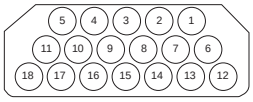
Coaxial	Type	Cannon Part Number	MIL-C-39029 Part Number	Cable Accom.	Min./Max Cable Dia.	Crimp Tool	Locator	Ins./ Ext. Tool	Grommet Sealing Plug Part Number (Color)
Size 12 Contact 71C15 Layout Only	Pin Socket	249-1825-001 249-1826-000	M39029/50-340 M39029/51-341	RG-179U	.081 (2.06) .158 (4.01)	.M22520/5-01 Outer M22520/2-01 Inner	.M22520/5-08 Outer M22520/2-30 Inner	CIET - 12	225-0072-000 (Yellow)

*Pin shielded contacts utilized in receptacle connectors (71C15P inserts).
Socket shielded contacts utilized in plug connectors (71C15S inserts).

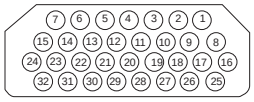
Contact Arrangements

DPKA

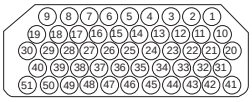
Face View Pin Insert Shown



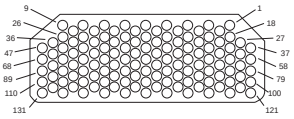
Layout	18
No. of Contacts and Wire Size	18 #12
Service Rating	I



Layout	32
No. of Contacts and Wire Size	32 #16
Service Rating	I

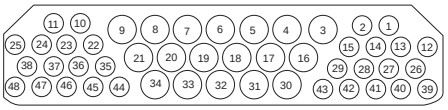


Layout	51
No. of Contacts and Wire Size	51 #20
Service Rating	I

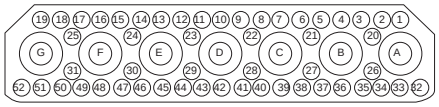


Layout	G131
No. of Contacts and Wire Size	131 #220
Service Rating	M

DPKB

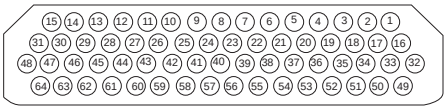


Layout	48
No. of Contacts and Wire Size	30 #16 (1,2,10-15,22-29,35-48), 18#12 (3-9,16-21,30-34)
Service Rating	

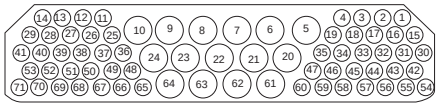


Layout	59W7
No. of Contacts and Wire Size	52 #20 (1-52) 7 Coax. (A-G) #20: 1500 Coax: 1000
Service Rating	I & 500 VDC (Coax)

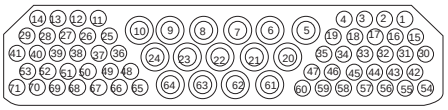
The 59W7 Layout is sold less coaxial contacts, se page 86 for contact part numbers.



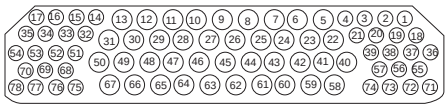
Layout	64
No. of Contacts and Wire Size	64 #16
Service Rating	I



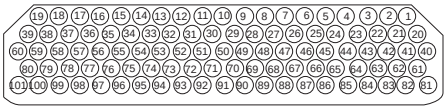
Layout	71
No. of Contacts and Wire Size	56#20 (1-4,11-30,36-60,65-71 15 #12 (5-10,31-56,61-64)
Service Rating	I



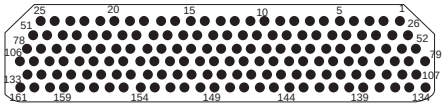
Layout	71C15
No. of Contacts and Wire Size	56 #20 (1-4,11-30,36-60,65-71) 15 Shielded #12 (5-10, 31-35,61-64)
Service Rating	#20: 1500: #12 Shielded: 500 1&500 VDC (Coax)



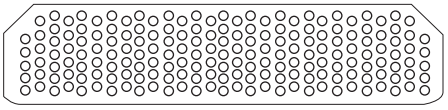
Layout	78
No. of Contacts and Wire Size	38 #20 (1-4,14-21,32-38,51-57, 68-78),40 #16 (5-13, 22-31, 40-50,58-67
Service Rating	I



Layout	101
No. of Contacts and Wire Size	101 #20
Service Rating	I



Layout	161*
No. of Contacts and Wire Size	161 #22
Service Rating	1000 VDC



Layout	G185
No. of Contacts and Wire Size	185 #22D
Service Rating	M

***P0S-ALINE DESIGN**

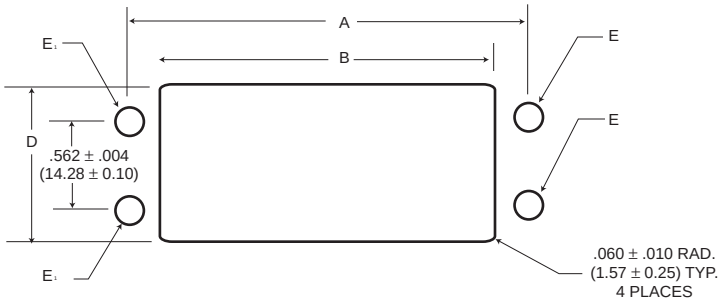
In the 161 contact arrangement, the entire pin contact is recessed in and individual cavity in the plug connector. The socket contact is exposed and extends from the connector receptacle face. (Pin insulator accepts socket contacts.)

Panel Cutout Dimensions

Mounting Styles

PG, SG	SY,PY
PC, PF, SF,	S*A, S*B
SX, PX, SK	P*A, P*B

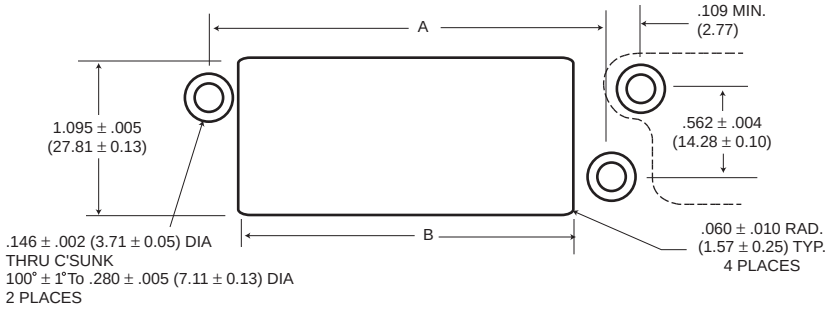
Figure 1.



Mounting Styles

SH, SM

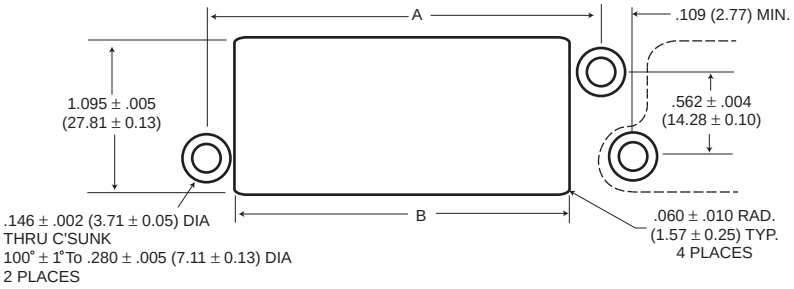
Figure 2.



Mounting Styles

PM, PH, P2

Figure 3.

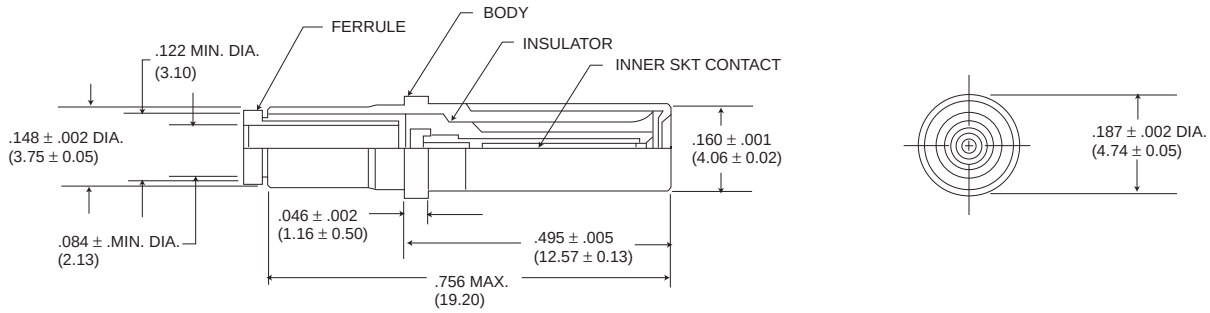


MIL-C-83733 Part No./ Mounting Style	DPK Mounting Styles	Figure Ref.	A ± .004(± 0.10)		B ± .005(± 0.13)		D ± .005(± 0.13)		E_1		E_2	
			Shell Size A	Shell Size B	Shell Size A	Shell Size B	Shell Size A	Shell Size B	Shell Size A	Shell Size B	Shell Size A	Shell Size B
M83733/1/5/6	PG, SG, PC, PF,SF	1	2.578 (65.48)	3.875 (98.43)	2.103 (51.13)	3.400 (86.36)	1.022 (25.96)	1.022 (25.96)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)
M83733/2	SX	1	2.578 (65.48)	3.875 (98.43)	2.103 (51.13)	3.465 (88.01)	1.022 (25.96)	1.095 (27.81)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)	.260 (6.60) .250 (6.35)	.260 (6.60) .250 (6.35)
M83733/3	PX	1	2.578 (65.48)	3.875 (98.43)	2.103 (51.13)	3.465 (88.01)	1.022 (25.96)	1.095 (27.81)	.320 (8.13) .315 (8.00)	.320 (8.13) .315 (8.00)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)
M83733/4	SK	1	2.578 (65.48)	3.875 (98.43)	2.167 (55.04)	3.465 (88.01)	1.095 (27.81)	1.095 (27.81)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)
M8733/7	SY	1	2.578 (65.48)	3.875 (98.43)	2.167 (55.04)	3.465 (88.01)	1.095 (27.81)	1.095 (27.81)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)	.430 (10.92) .420 (10.67)	.430 (10.92) .420 (10.67)
M83733/8	PY	1	2.578 (65.48)	3.875 (98.43)	2.167 (55.04)	3.465 (88.01)	1.095 (27.81)	1.095 (27.81)	.380 (9.65) .370 (9.40)	.380 (9.65) .370 (9.40)	.148 (3.76) .144 (3.66)	.148 (3.76) .144 (3.66)
M83733/9/10/11	PM, PH PZ	2	2.578 (65.48)	3.875 (98.43)	2.167 (55.04)	3.465 (88.01)	1.095 (27.81)	1.022 (25.96)	-	-	-	-
M83733/12	SH, SM	3	2.578 (65.48)	3.875 (98.43)	2.095 (53.21)	3.400 (86.36)	1.095 (27.81)	1.095 (27.81)	-	-	-	-
N/A	S*A, S*B, P*A, P*B	1	2.578 (65.48)	3.875 (98.43)	2.103 (51.13)	3.465 (88.01)	1.022 (25.96)	1.095 (27.81)	.301 (7.65) .294 (7.45)	.301 (7.65) .294 (7.45)	.301 (7.65) .294 (7.45)	.301 (7.65) .294 (7.45)

Assembly/Shielded Contacts

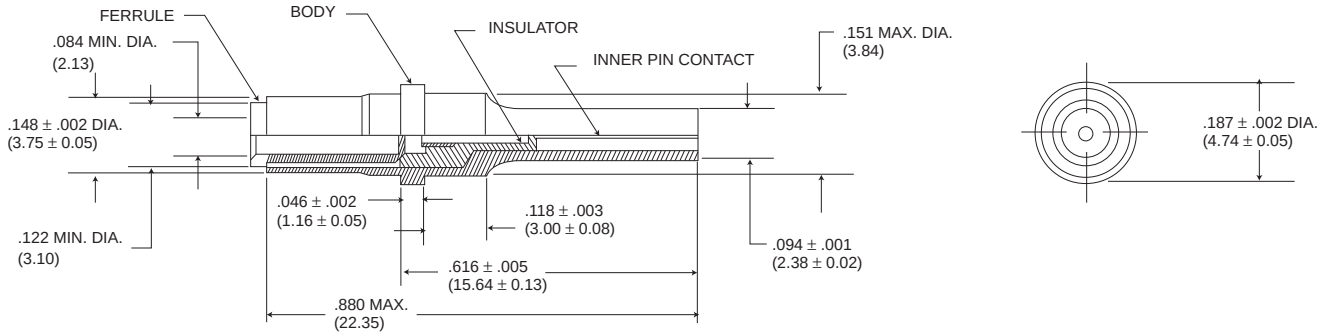
Socket

249-1826-000/MIL-C-39029/51
Size 12/RG-179B/U Cable (used in 71C15 layout

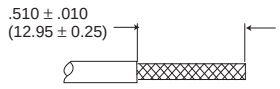


Pin

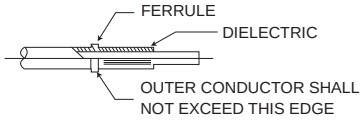
249-1826-000/MIL-C-39029/50
Size 12/RG-179B/U Cable (used in 71C15 layout



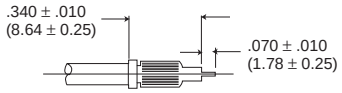
Assembly Instructions



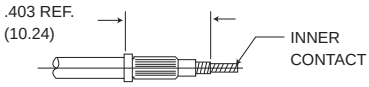
Step 1.
Strip outer jacket to dimensions shown to expose outer conductor.



Step 2.
Slip (or install) ferrule over outer conductor against cable jacket. Exposed portion of the outer conductor must be combed out then folded back over ferrule.



Step 3.
Trim cable to dimensions, as shown. (Ferrule must butt against cable jacket).

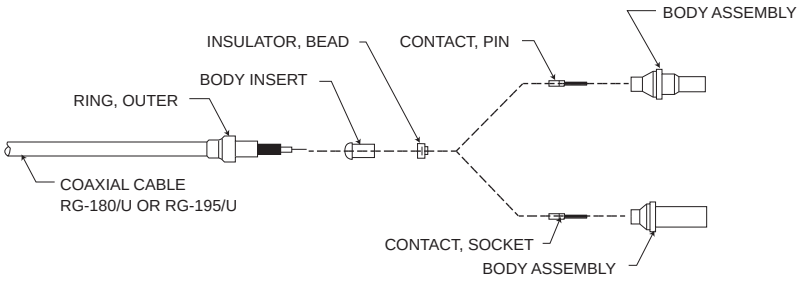


Step 4.
Install inner contact against dielectric then crimp contact and center conductor with a M22520/2-01 cimp tool using a M22520/2-30 locator.

Step 5.
Insert cable,ferrule and inner contact to rear of shell and crimp into place with M22520/5-03 crimp tool.

Coaxial Contact/Assembly

249-5500-010 Socket*
249-5500-011 PIN*



NOTES: 1. These assembly instructions apply to 249-5500-010, and 249-5500-011.
2. The following assembly tools are required:
a) CCT-C9 hex crimp tool
b) MS3198-Q W/L-3198-C1 contact crimp tool and locator
c) 149 C(300 F) hot air gun (recommended): Regal heat Gun No. 9A)
d) Blades, scissors, and picks

STEP 1.
Slide outer ring over cable as shown (Figure 1).

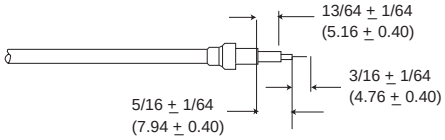
STEP 2.
Strip cable as shown (Figure 1).

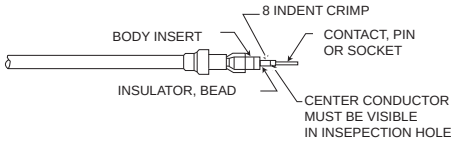
STEP 3.
Install body insert, insulatro bed, and contact on cable as shown (Figure 2.)

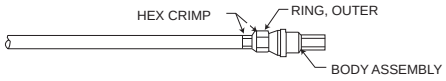
STEP 4.
With body insert, insulator bead, and contact firmly in place, crimp the contact with tool M22520/2-01 (setting number 3) and loacator M22520/2-30 (Figure 2). Caution: The assembled componenets must be tightly in place after crimping.

STEP 5.
Slide body assembly over componenets and under shield until firmly bottomed in place. Locate outer ring over shield and against body as shown (Figure 3).

STEP 6.
With cable and body assembly securely held together, hex crimp the outer ring with tool CCT-C9 (Figure 3). Important: For optimum hex crimp, firmly bottom the outer ring against the shoulder of the hex die before compressing the handles.

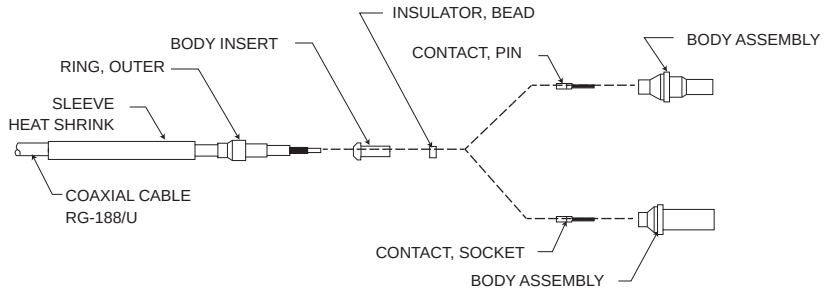






*These contacts are used in the F59C7 layout.

249-5500-012 Socket*
249-5500-013 PIN*



NOTES: 1. These assembly instructions apply to 249-5500-010, and 249-5500-011.
2. The following assembly tools are required:
a) CCT-C9 hex crimp tool
b) M22520/2-01 contact crimp tool and locator
c) 149 C(300 F) hot air gun (recommended): Regal heat Gun No. 9A)
d) Blades, scissors, and picks

STEP 1.
Slide heat-shrink sleeve and outer ring over cable as shown.

STEP 2.
Strip cable as shown (Figure 1). Caution: Do not nick shield wires.

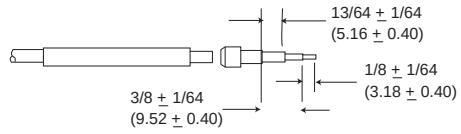
STEP 3.
Install body insert, insulator bead, and contact on cable as shown.

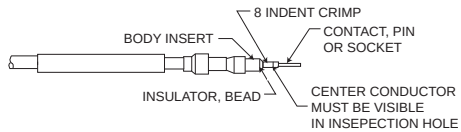
STEP 4.
With body insert, insulator bead, and contact firmly in place, crimp the contact with tool M22520/2-01, using setting number 3 and loacator M22520/2-30 (Figure 2). Caution: The assembled componenets must be tightly in place after crimping.

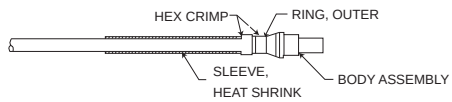
STEP 5.
Slide body assembly over componenets and under shield until firmly bottomed in place. Locate outer ring over shield and against body as shown (Figure 3).

STEP 6.
With cable and body assembly securely held together, hex crimp the outer ring with tool CCT-C9 (Figure 3). Important: For optimum hex crimp, firmly bottom the outer ring against the shoulder of the hex die before compressing the handles.

STEP 7.
The final step is to shrink the heat sleeve in place with a hot air source of 149 C to 327 C (300 F to 621 F) (Figure 3).







*These contacts are used in the G59C7 layout.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for itt ***manufacturer:***

Other Similar products are found below :

BKAF3-68102-25 MDM-37PCBR-F222 CA3108E14S-5PBA176A232 KPSE06F20-41SA206F0 CB2-18-3SCA232 MS3106E22-14P CT6E18-11SCA206 CA3101E10SL-4SF80DN MS3100F14S-7S CA3101E10SL-4PBA176F42 MS3101E181SW 024251-0016-R 024253-0025 024265-0001 024270-0015 024271-0022 024273-0043 024288-0001 M24308/24-21F M24308/24-33Z CT1F22-7SS CT2-20-23SWS CT2-20-23SXS CT2-36-10PCAU CT6-24-11PSA206 CT6F36-10PCA152 CT6F9767-14-4-14S-5PC CT6T9767-14-4-14SA7SS D38999/20FG16PA-LC - MD1-21PS MDM-15PH001B-A174 MDM-15PH003B-A174 MDM-21SCBR-A174 MDM-21SCBRP-A174 MDM-21SH003B MDM25PH003BF222 MDM-31SBRP MDM-37PBRT MDM37SH004PA174 MDM-37SH013P MDM-51PSF MDM-51SCBRPL56 MDM96514-336 MDM-9PCBRM7 MDM-9PH006B-A174 MDM9SSM5 MDMV96638-13 MDVB1-21SL1 MEB97318-219 MIKQ67SH019