

CA/MS A&B



A

Circular

ITT Cannon is the foremost manufacturer of MS and MS type connectors with the widest range of connector styles, sizes and variations in the industry. These connectors utilize the finest materials, which, along with precision manufacturing and rigid quality control, assure ITT Cannon customers of the finest quality connectors. The MS A & B product line has environmentally safe green and black zinc alloy plating. The Black

zinc plating is RoHS compliant. The plating is a high quality, uniform finish. The contact, which are preloaded in the insulator, have been redesigned such that the solder cups remain in the proper orientation and will not rotate during wiring termination. The contacts are machined for strength and durability and plated with silver. The Cannon MS A&B design meets the performance requirements of the MIL-C-5015. The

product is available in all the popular sizes and configurations available in Class A (solid end bell) and Class B (split end bell) versions.

Applications:

- Industrial Controls
- Test Equipment
- Traffic Signals
- Bus Systems

Product Features and Benefits

- High strength aluminum alloy connector
- High strength plastic insulators
- Environmentally safe shell finishes
- Protected against corrosion
- High quality plating finish
- Threaded coupling
- Product is tooled and available in 50 insert patterns
- Machined contacts
- Low cost
- UL recognized

Performance Specifications

Temperature Range:	-55°C to 125°C (-67°F to 257°F)
Current Rating:	13 A to 150 A*
Durability:	500 mating cycles min.
Wire Accommodation:	0 to 20 AWG*
No. of Contacts:	2 to 48
Termination:	Solder

*Depending on contact size.

ELECTRICAL SERVICE DATA

Test current ratings of contacts and allowable voltage drop under test conditions when assembled as in service are shown below. Maximum total current to be carried per connector is the same as the allowable in wire bundles as specified in MIL-W-5088.

Contact Size	Test Current (amps)	Potential Drop (millivolts)
16	13	49
12	23	42
8	46	28
4	80	23
0	150	21

HIGH POTENTIAL TEST VOLTAGE

MS connectors show no evidence of breakdown with the test voltage given below is applied between the two closest contacts and between the shell and the contacts closest to the shell for a period of one minute.

MS Service Rating	Test Voltage (RMS) 60 cps	Suggested* Operating Voltages		Air Spacing Nom. (inches)	Creepage Distance Nom. (inches)
		DC	AC (rms)		
Inst.	1000	250	200		1/16
A	2000	700	500	1/16	1/8
D	2800	1250	900	1/8	3/16
E	3500	1750	1250	3/16	1/4
B	4500	2450	1750	1/4	5/16
C	7000	4200	3000	5/16	1

*As indicated in previous MS Specification and to be used by designer only as a guide.

Materials and Finishes

Description	Material	Finish
Shell	Aluminum Alloy	Green Zinc Standard, Black Zinc (RoHS), OD CAD
Insulator	Hard Plastic	—
Contact	Brass or Copper Alloy	Silver



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

www.ittcannon.com



A

Circular

CA/MS 3100A wall mounting receptacles are used to carry wires through walls or bulkheads, or to provide the means of disconnection at a bulkhead. CA/MS 3100A receptacles mate with CA/MS 3106 and 3108 plugs.



CA/MS 3101A cable connecting receptacles are used for cable extension requirements where mounting provisions are unnecessary. CA/MS 3101A plugs mate with 3106A/B and 3108B connectors.



Note: The D revision of MIL-C-5015 has changed the nomenclature of the 3101 from receptacle to plugs.

CA/MS 3102A box mounted receptacles are used in junction boxes or as an integral part of equipment. CA/MS 3102A receptacles will mate with 3106 and 3108 plugs.



CA/MS 3106A straight plug utilizes a solid endbell. The CA/MS 3106A mates with 3100, 3101, and 3102 connectors.



CA/MS 3106B is identical to the 3106A straight plug except it utilizes a split endbell. CA/MS 3106B mates with 3100, 3101, and 3102 connectors.



CA/MS 3108B 90° angle plugs are used where there is limited space and where wires must be brought at abrupt angles. This plug will mate with 3100, 3101, and 3102 connectors.



Contact Arrangements (Face View Pin Insert)



A

Circular

LEGEND

● Not MS Approved. ITT Cannon Proprietary (see ITT Cannon designed alternative insert positions, page A-90)

⊕ High Volume Layouts - readily available from Cannon Distributors

Shell Size	8S-1	10S-2	10SL-4	10SL-3	10SLA4	12S-4	12-5	12S-3	12SA10	14-3	14S-9
No. of Contacts	1 #16	1 #16	2 #16	3 #16	5 #20	1 #16	1 #12	2 #16	4 #16	1 #8	2 #16
Service Rating	A	A	A	A	A	D	D	A	Inst.	A	A
Shell Size	14S-1	14S-7	14S-2	14S-5	14S-6	16-7	16-12	16-11	16S-4	16-13	16S-12
No. of Contacts	3 #16	3 #16	4 #16	5 #16	6 #16	2 #16 (A, B) 1 #8 (C)	1 #4	2 #12	2 #16	2 #12	(A-Iron B-Constantan)
Service Rating	A	A	Inst.	Inst.	Inst.	A	A	A	D	A	
Shell Size	16S-5	16S-6	16-10	16-9	16S-8	16S-1	18-7	18-3	16S-5	16S-6	16-10
No. of Contacts	3 #16	3 #16	3 #12	2 #16 (B,D) 2 #12 (A,C)	5 #16	7 #16	1 #8	2 #12	3 #16	3 #16	3 #12
Service Rating	A	A	A	A	A	A	B	D	A	A	D
Shell Size	18-5	18-22	18-4	18-10	18-13	18-15	18-11	18-12	18-9	18-8	18-1
No. of Contacts	1 #16(A) 2 #12(B,C)	3 #16	4 #16	4 #12	3 #12 (B,C,C) 1 #8(A)	4 #12	5 #12	6 #16	5 #16(B,C,E-G) 2 #12(A,D)	7 #16(A-G) 1 #12(H)	10 #16
Service Rating	D	D	D	A	A	A	A	A	D	A	Inst.
Shell Size	20-4	20-24	20A-9	20A37	20A-48	20-14	20-8	20-17	20-22	20-15	20-4
No. of Contacts	4 #12	2 #16 (A,C) 2 #8 (B,D)	9 #12 D (J)	ITT Cannon pos. #8 of 20-4	19 #16	3 #12(C,D,E) 2 #8(A,B)	4 #16(B,C,E,F) 2 #8(A,D)	1 #16(F) 5 #12(A-E)	3 #16(B,D,F) 3 #8(A,C,E)	7 #12	4 #12
Service Rating	D	A	A (all others)	D	Inst.	A	Inst.	A	A	A	D

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

www.ittcannon.com



MS-E/F/R/ER MIL-C-5015 Connectors

Contact Arrangements (continued)



A

LEGEND

● Not MS Approved. ITT Cannon Proprietary (see ITT Cannon designed alternative insert positions, page A-90)

⊕ High Volume Layouts - readily available from Cannon Distributors

Circular

Shell Size	20-7	20-16	20-18	20-33	20-11	20-27	20-29	22-7
No. of Contacts	8 #16	7 #16(A-G) 2 #12(H,I)	6 #16(A,C-E,G,H) 3 #12(B,F,I)	11 #16	13 #16	14 #16	17 #16	1 #0
Service Rating	A(C-F) D(A,B,G,H)	A	A	A	Inst.	A	A	E
Shell Size	22-11	22-2	22-6	22-9	22-4	22-10	22-22	22-12
No. of Contacts	2 #16	3 #8	1 #16(B) 2 #8(A,C)	3 #12	2 #12(A,C) 2 #8(B,D)	4 #16	4 #8	3 #16(A,C,D) 2 #8(B,E)
Service Rating	B	D	D	E	A	E	A	D
Shell Size	22-13	22-5	22-15	22-28	22-18	22-23	22-17	22-20
No. of Contacts	1 #16(E) 4 #12(A-D)	4 #16(A,C,D,F) 2 #12(B,E)	1 #16(D) 5 #12(A-C,E,F)	7 #12	8 #16	8 #12	8 #16(A-D,F-J) 1 #12(E)	9 #16
Service Rating	A(A-D), D(E)	D	A(A-C,E,F),E(D)	A	A(C-E) D(all others)	D(H) A(all others)	D(A), A(all others)	A
Shell Size	22-27	22-19	22-14	24-9	24-22	24-12	24-2	24-10
No. of Contacts	8 #16(A-H) 1 #8(J)	14 #16	19 #16	2 #4	4 #8	3 #12(B,D,E) 2 #4(A,C)	7 #12	7 #8
Service Rating	D(J), A (all others)	A	A	A	D	A	D	A
Shell Size	24-27	24-6	24-11	24-20	24-19	24A24	24-5	24-7
No. of Contacts	7 #16	8 #12	6 #12(A-C,G-I) 3 #8(D-F)	9 #16(A-D,G-L) 2 #12(E,F)	12 #16 6 #12(B-G)	12 #12	16 #16	14 #16(A-M,O) 2 #12(P,N)
Service Rating	E	D(A,G,H) A(all others)	A	D	A	A	A	A



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

www.ittcannon.com

Contact Arrangements (continued)



A

Circular

LEGEND

● Not MS Approved. ITT Cannon Proprietary (see ITT Cannon designed alternative insert positions, page A-90)

⌀ High Volume Layouts - readily available from Cannon Distributors

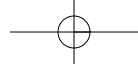
Shell Size 24-28	28-7	28-22	28-10	28-1	28A-16	28A-63	28-19
No. of Contacts 24 #16	2 #4	3 #16(D-F) 3 #4(A-C)	3 #12(A,F,G) 2 #8(B,E) 2 #4(C,D)	6 #12(A,B,D-F,H) 3 #8(C,J,G)	5 #16 (A, D-F, J) 4 #4 (B, C, G, H)	9 #12 19 #16	6 #16(A-C,H,L,M) 4 #12(E,G,J,K)
Service Rating Inst.	D	D	D(G), A(all others)	D(A,E,J) A(all others)	A (e) Inst. (all others)	A (e) Inst. (all others)	A(C,E,G,J,K,L) B(H,M),D(A,B)

Shell Size 28-9	28-2	28-20	28-17	28-16	28-11	28-12
No. of Contacts 6 #16(A,H-M) 6 #12(B-G)	12 #16(A,L,N) 2 #12(M,P)	4 #16(K-N) 10 #12(A-J,P)	15 #16	20 #16	18 #16(A-I, N-X) 4 #12(J-M)	26 #16
Service Rating D	D	A	A(A-L), B(R) D(M-P)	A	A	A

Shell Size 28-15	28-21	28A51	32-17	32-1	32A-69	32-15	32-9
No. of Contacts 35 #16	37 #16	43 #16	4 #4	3 #12(A,C,D) 2 #0(B,E)	41 #20 20 #16	2 #0(A,G) 6 #12(B,C,D,E,F,H)	12 #16(C-N) 2 #4(A,B)
Service Rating A For MIL equip design, use 28-21	A	A	D	E(A),D(all others)	Inst.	D	D

Shell Size 32-5	32-6	32-8	32-7	32A47	32A10	36-4
No. of Contacts 2#0	16 #16(A-O,S) 2 #12(U,V) 3 #8(P,R,T) 2 #4(W,X)	24 #16(A-L,T-Z,a-e) 6 #12(M-S) 2 #8(O,R)	28 #16(A-N,W-Z,a-k) 7 #12(O-V)	47 #16	54 #16	3 #0
Service Rating D	A	A For new MIL equip. design, use 32-7	Inst. (A,B,h,j) A(all others)	A	A	A(B,C),C(A)

*NOTE: Additional layouts are the same as shown but in unique alternate positions. Please consult the factory.



MS-E/F/R/ER MIL-C-5015 Connectors



A

Circular

Contact Arrangements (continued)

● Not MS Approved. ITT Cannon Proprietary (see ITT Cannon designed alternative insert positions, page A-90)

⌀ High Volume Layouts - readily available from Cannon Distributors

Shell Size	36-5	36-6	36-14	36A16	36A46	36-9
No. of Contacts	4 #0	4 #4(B,C,E,F) 2 #0(A,D)	6 #16(K-N,P,Q) 5 #12(B,D,F,H,J) 5 #8(A,C,E,G,I)	18 #12 (B,C,V,J,K,M,N, R, T-Iron; A,D-F,H,L P,S,U-Constantan)	27 #12	14 #16(A-G,Z-f) 14 #12(H-N,S-Y) 2 #8(O,R) 1 #4(P)
Service Rating	A	A	D	A	A	A
Shell Size	36-15	36-7	36-8	36-10	36A34	36A66
No. of Contacts	35 #16	40 #16(A-Z,a-s) 7 #12(t-z)	46 #16(A-X,Z-z) 1 #12(Y)	48 #16	52 #16	52 #16(A-c,h-AK) 4 #12(d,e,f,g)
Service Rating	D(m), A (all others)	A	A	A	A	A
Shell Size	40A33	40-10	40A27	40-56		
No. of Contacts	7 #8(G-N) 6 #4(A-F)	16 #16(A,B,E-H,M,N,P Q,V-Y,b,c) 9 #8(C,D,I,L,O,R,U,Z,a) 4 #4(K,J,S,T)	60 #16	85 #16		
Service Rating	A	A	A	A		
Shell Size	44-1	48-5				
No. of Contacts	36 #16(A-S,Z-t) 6 #12(T-Y)	90 #16(A-BL,BN-BT,BW,BX) 1 #8(CD) 9 #12(BM,BU,BV,CC,CE)				
Service Rating	D	A				



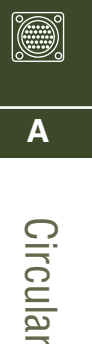
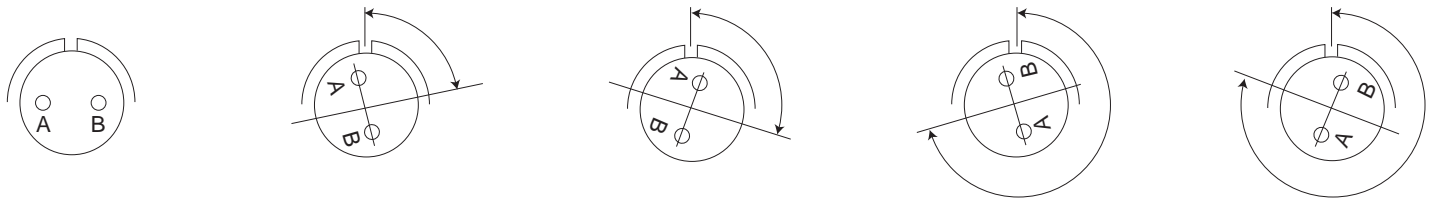
Dimensions shown in inches (mm)
Specifications and dimensions subject to change

www.ittcannon.com



MS Alternate Insert Positions

All views are looking into front of pin insert of rear of socket insert.



Normal Position				Position W				Position X				Position Y				Position Z										
Shell Size	Contact Arrangement	Wire Size	Service Rating	W	X	Y	Z	Shell Size	Contact Arrangement	Wire Size	Service Rating	W	X	Y	Z	Shell Size	Contact Arrangement	Wire Size	Service Rating	W	X	Y	Z			
8S	8S-1	1 #16	A	-	-	-	-	20	20-22	3 #16	A	80	110	250	280	28	28-10	3 #12	D(G)	80	110	250	280			
10S	10S-2	1 #16	A	-	-	-	-			3 #8								A(all others)								
	10SL-4	2 #16	A	-	-	-	-			2 #8	A	35	110	250	325			2 #4								
	10SL-3	3 #16	A	-	-	-	-			2 #16	A	35	110	250	325			28-11	18 #16	A	80	110	250	280		
12	12-5	1 #12	D	-	-	-	-			2 #8								4 #12								
12S	12S-4	1 #16	D	-	-	-	-			20-27	14 #16	A	35	110	250	325			28-12	26 #16	A	90	180	270	-	
	12S-3	2 #16	A	70	145	215	290			20-29	17 #16	A	80	-	-	280			28-15	35 #16	A	80	110	250	280	
14	14-3	1 #8	A	-	-	-	-			20-33	11 #16	A	-	-	-	-			28-16	20 #16	A	80	110	250	280	
14S	14S-1	3 #16	A	-	-	-	-	22	22-2	3 #8	D	70	145	215	290			28-17	15 #16	A(A-L),B(R)	80	110	250	280		
	14S-2	4 #16	Inst.	-	120	240	-			22-4	2 #12	A	35	110	250	325			D(M-P)							
	14S-5	5 #16	Inst.	-	110	-	-			2 #8								28-19	6 #16	A(C,E,G,J,K,L)	80	110	250	280		
	14S-6	6 #16	Inst.	-	-	-	-			22-5	4 #16	D	35	110	250	325			4 #12	B(H,M), D(A,B)						
	14S-7	3 #16	A	90	180	270	-			2 #12								28-20	4 #16	A	80	110	250	280		
	14S-9	2 #16	A	70	145	215	290			22-6	1 #16	D	80	110	250	280			10 #16							
16	16-7	2 #16	A	80	110	250	280			2 #8								28-21	37 #16	A	80	110	250	280		
	1 #8									22-7	1 #0	E	-	-	-	-			28-22	3 #16	D	70	145	215	290	
	16-9	2 #16	A	35	110	250	325			22-9	3 #12	E	70	145	215	290			3 #4							
	2 #12									22-10	4 #16	E	35	110	250	325			32-1	3 #12	E(A)	80	110	250	280	
	16-10	3 #12	A	90	180	270	-			22-11	2 #16	B	35	110	250	325			2 #0	D(all others)						
	16-12	1 #4	A	-	-	-	-			22-12	3 #16	D	80	110	250	280			32-5	2 #0	D	80	110	250	325	
	16-11	2 #12	A	35	110	250	325			2 #8								32-6	16 #16	A	80	110	250	280		
	16-13	2 #12	A	35	110	250	325			22-13	1 #16	A(A-D)	35	110	250	325			2 #12							
16S	16S-1	7 #16	A	80	-	-	280			4 #12	D(E)							3 #8								
	16S-4	2 #16	D	35	110	250	325			22-14	19 #16	A	80	-	-	280			2 #4							
	16S-5	3 #16	A	70	145	215	290			22-15	1 #16	A(A-C,E,F)	80	110	250	280			32-7	28 #16	Inst.(A,B,h,j)	80	125	235	280	
	16S-6	3 #16	A	90	180	270	-			5 #12	E(D)							7 #12	A(all others)							
	16S-8	5 #16	A	-	170	265	-			22-17	8 #16	D(A)	80	110	250	280			32-8	24 #16	A	80	125	235	280	
18	18-1	10 #16	A(B,C,F,G)	70	145	215	290			1 #12	A(all others)							6 #12								
	18-3	2 #12	D	35	110	250	325			22-18	8 #16	A(C-E)	80	110	250	280			32-9	12 #16	D	80	110	250	280	
	18-4	4 #16	D	35	110	250	325			D(all others)								2 #4								
	18-5	1 #16	D	80	110	250	280			22-19	14 #16	A	80	110	250	280			32-15	2 #0	D	35	110	250	280	
	2 #12									22-20	9 #16	A	35	110	250	325			6 #12							
	18-7	1 #8	B	-	-	-	-			22-22	4 #8	A	-	110	250	-			32-17	4 #4	D	45	110	250	-	
	18-8	7 #16	A	70	-	-	290			22-23	8 #12	D(H)	35	-	250	-			36-4	3 #0	A(B,C)	70	145	215	290	
	1 #12									A(all others)								D(A)								
	18-9	5 #16	Inst.	80	110	250	280			22-27	8 #16	D(J)	80	-	250	280			36-5	4 #0	A	-	120	240	-	
	2 #12									1 #8	A(all others)							36-6	4 #4	A	35	110	250	325		
	18-10	4 #12	A	-	120	240	-			22-28	7 #12	A	80	-	-	280			2 #0							
	18-11	5 #12	A	-	170	265	-	24	24-2	7 #12	D	80	-	-	280			36-7	40 #16	A	80	110	250	280		
	18-12	6 #16	A	80	-	-	280			24-5	16 #16	A	80	110	250	280			7-12							
	18-13	3 #12	A	80	110	250	280			24-6	8 #12	D(A,G,H)	80	110	250	280			36-8	46 #16	A	80	110	250	280	
	1 #8									A(all others)								1 #12								
	18-15	4 #12	A	-	120	240	-			24-7	14 #16	A	80	110	250	280			36-9	14 #16	A	80	125	235	280	
	18-19	10 #16	A	-	120	240	-			2 #12								14 #12								
	18-22	3 #16	D	70	145	215	290			24-9	2 #4	A	35	110	250	325			2 #8							
20	20-2	1 #0	D	-	-	-	-			24-10	7 #8	A	80	-	-	280			1 #4							
	20-3	3 #12	D	70	145	215	290			24-11	6 #12	A	35	110	250	325			36-10	48 #16	A	80	125	235	280	
	20-4	4 #12	D	45	110	250	-			3 #8								36-14	6 #16	D	90	180	270	-		
	20-7	8 #16	A(C-F)	80	110	250	280			24-12	3 #12	A	80	110	250	280			5 #12							
	2 #12									2 #4								5 #8								
	20-8	4 #16	D(A,B,G,H)	80	110	250	280			24-20	9 #16	D	80	110	250	280			36-15	35 #16	D(m)	60	125	245	305	
	2 #8		Inst.							2 #12								A(all others)								
	20-14	3 #12	A	80	110	250	280			24-22	4 #8	D	45	110	250	-			40-10	16 #16	A	65	125	225	310	
	2 #8									24-27	7 #16	E	80	-	-	280			9 #8							
	20-15	7 #12	A	80	-	-	280			24-28	24 #16	Inst.	80	110	250	280			4 #4							
	20-16	7 #16	A	80	110	250	280			28	28-1	6 #12	D(A,E,I)	80	110	250	280			40-56	85 #16	A	72	144	216	288
	2 #12									3 #8	A(all others)							6 #12								
	20-17	1 #16	A	90	180	270	-			28-2	12 #16	D	35	110	250	325			44-1	36 #16	D	65	125	225	310	
	5 #12									2 #12								6 #12								
	20-18	6 #16	A	35	110	250	325			28-7	2 #4	D	35	110	250	325			48	48-5	90 #16	A	65	125	225	310
	3 #12									28-9	6 #16	D	80	110	250	280			1 #8							
	20-19	3 #8	A	90	180	270	-			6 #12								9 #12								

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

MS-E/F/R/ER MIL-C-5015 Connectors

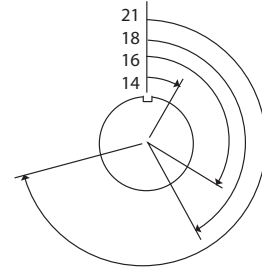
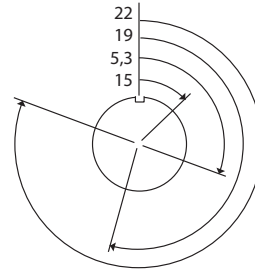
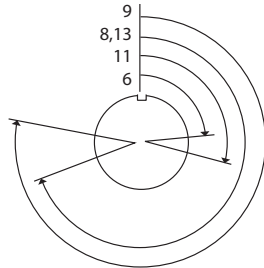
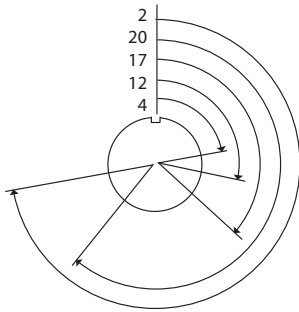


ITT Cannon Designated Alternate Insert Positions

Not MS approved.

A

Circular



NOTE: Front view of pin insulator rotates as shown.

Shell Size	Contact Arrangement	Wire Size	Service Rating	Available Position	
20	20A-9	9#12	D (I) A (all others)		
20	20A-48	19#16	Inst.	4	9
28	28A-16	5#16 4#4	A (e) Inst (all others)	2	12
28	28A-63	9#12 19#16	A (e) Inst (all others)		
32	32A-69	41#20 20#16	Inst	3	8
		20	220		
		21	255		
		22	290		
		23	165		
		24	330		
		25	235		
		26	125		



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

www.ittcannon.com

MIL-DTL-5015 Connectors MS-E/F/R



A

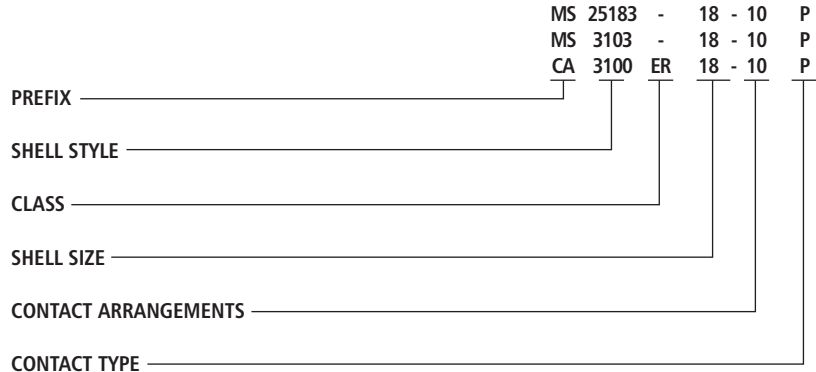
Circular

MS type potting connectors are available with nylon cups. 00 and 06 shell styles with plastic cups and resilient insulators meet the requirements of MS3103 and MS25183. Also available is the 08 plug with resilient insulator and 90° angle nylon potting cup.

ITT Cannon provides for a 1/4" clearance for potting on all contact sizes.



How To Order



PREFIX
CA - ITT Cannon prefix indicating special application or variation of MS

SHELL STYLE
3100 - Wall mounting receptacle (MS3103)
3106 - Straight Plug (MS325183)
3108 - 90° angle plug

CLASS
ER - Resilient insulator, nylon potting cup and thread attachment ring
No class designator for MS types.

SHELL STYLE
Coupling thread diameter figured in sixteenths of an inch

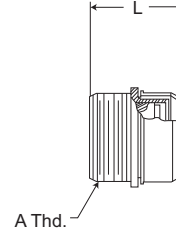
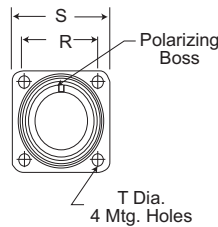
CONTACT ARRANGEMENTS
See pages A-85 – A-89

CONTACT TYPE
P - Pin
S - Socket

Wall Mounting Receptacle

MS3103
Nylon Potting Cup
Threaded Attachment Ring

CA3100ER



The CA3100ER receptacle (MS3103) is supplied with a resilient insulator and nylon potting cup with a threaded attachment ring. This receptacle mates with 3106 and 3108 plugs.

Shell Size	L Max.	R ± .005 (±0.13)	S Max.	R		A Thread
				+ .010 (+0.25)	- .005 (-.031)	
8S	1.531 (38.89)	.594 (15.09)	.906 (23.01)	.120 (3.05)		1/2-28UNEF-2A
10S	1.531 (38.89)	.719 (18.26)	1.031 (26.19)	.120 (3.05)		5/8-24NEF-2A
10SL	1.531 (38.89)	.719 (18.26)	1.031 (26.19)	.120 (3.05)		5/8-24NEF-2A
12S	1.531 (38.89)	.812 (20.62)	1.125 (28.58)	.120 (3.05)		3/4-20UNEF-2A
14S	1.531 (38.89)	.906 (23.01)	1.219 (30.96)	.120 (3.05)		7/8-20UNEF-2A
16S	1.531 (38.89)	.969 (24.61)	1.312 (33.32)	.120 (3.05)		1-20UNEF-2A
12	1.968 (49.99)	.812 (20.62)	1.125 (28.58)	.120 (3.05)		3/4-20UNEF-2A
14	1.968 (49.99)	.906 (23.01)	1.219 (30.96)	.120 (3.05)		3/4-20UNEF-2A
16	1.968 (49.99)	.969 (24.61)	1.312 (33.32)	.120 (3.05)		1-20UNEF-2A
18	1.968 (49.99)	1.062 (26.97)	1.406 (35.71)	.120 (3.05)		1-1/8-18NEF-2A
20	2.188 (55.58)	1.156 (29.36)	1.531 (38.89)	.120 (3.05)		1-1/4-18NEF-2A
22	2.188 (55.58)	1.250 (31.75)	1.656 (42.06)	.120 (3.05)		1-3/8-18NEF-2A
24	2.188 (55.58)	1.375 (34.93)	1.781 (45.24)	.147 (3.73)		1-1/2-18NEF-2A
28	2.188 (55.58)	1.562 (39.67)	2.031 (51.59)	.147 (3.73)		1-3/4-18NS-2A
32	2.188 (55.58)	1.750 (44.45)	2.281 (57.94)	.173 (4.39)		2-18NS-2A
36	2.188 (55.58)	1.938 (49.23)	2.531 (64.29)	.173 (4.39)		2-1/4-16UN-2A

Performance Specifications - Page A-84

Contact, Ceiling Plugs, Assembly Tools - Page A-105

Contact Arrangements - Page A-85 – A-89



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

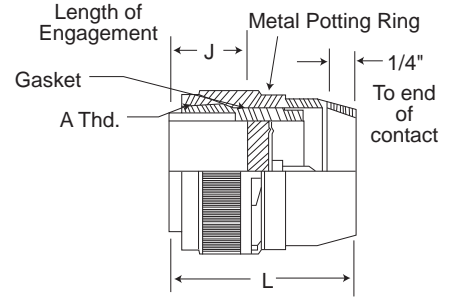
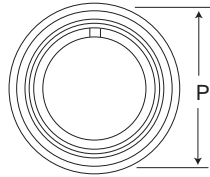
www.ittcannon.com

MIL-DTL-5015 Connectors MS-E/F/R

Straight Plug

MS25183
Nylon Potting Cup
Rubber Gasket

CA3106ER



A

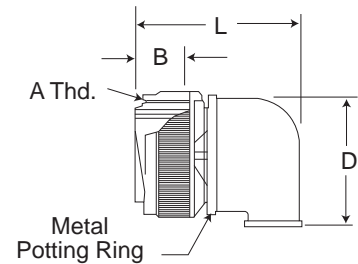
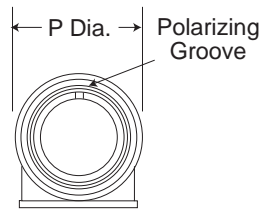
Circular

The CA3106ER plug is supplied with resilient insulators, nylon potting cups with threaded attachment rings, and a rubber gasket under the coupling nut. This plug mates with 3100, 3101 and 3102 receptacles.

90° Angle Plug

Nylon Potting Cup
Rubber Gasket

CA3108ER



The CA3108ER is supplied with resilient insulator, 90° nylon potting cup and threaded attachment ring with a rubber gasket under the coupling nut. This plug mates with 3100, 3101 and 3102 receptacles.

CA3106ER					CA3108ER					
Shell Size	J Max.	L Max.	P Max.	A Thread	B Max.	D Max.	L Max. For Arr. w/#16  Contacts	For Arr. w/#8 Contacts	P Max.	A Thread
85	.536 (13.61)	1.562 (39.67)	.844 (21.44)	1/2-28UNEF-2B	-	-	-	-	-	-
10S	.536 (13.61)	1.562 (39.67)	.969 (21.44)	5/8-24UNEF-2B	-	-	-	-	-	-
10SL	.536 (13.61)	1.562 (39.67)	.969 (21.44)	5/8-24UNEF-2B	.563(13.61)	1.040(26.42)	1.463(37.16)	-	969(24.61)	5/8-24UNEF-2B
12S	.536 (13.61)	1.562 (39.67)	1.062 (21.44)	3/4-20UNEF-2B	.563(13.61)	1.040(26.42)	1.600(40.64)	-	1.062(26.97)	3/4-24UNEF-2B
14S	.536 (13.61)	1.562 (39.67)	1.156 (21.44)	7/8-20UNEF-2B	.563(13.61)	1.040(26.42)	1.600(40.64)	2.300(58.42)	1.156(29.36)	7/8-20UNEF-2B
16S	.536 (13.61)	1.562 (39.67)	1.250 (21.44)	1-20UNEF-2B	.563(13.61)	1.290(32.77)	1.600(40.64)	2.550(64.77)	1.250(31.75)	1-20UNEF-2B
12	.724 (18.39)	2.000 (50.80)	1.062 (26.97)	3/4-20UNEF-2B	.724(18.39)	1.040(26.42)	1.910(48.51)	-	1.062(26.97)	3/4-20UNEF-2B
14	.724 (18.39)	2.000 (50.80)	1.156 (29.36)	7/8-20UNEF-2B	.724(18.39)	1.040(26.42)	1.910(48.51)	2.610(66.29)	1.156(29.36)	7/8-20UNEF-2B
16	.724 (18.39)	2.000 (50.80)	1.250 (31.75)	1-20UNEF-2B	.724(18.39)	1.290(32.77)	1.910(48.51)	2.850(72.39)	1.250(31.75)	1-20UNEF-2B
18	.724 (18.39)	2.000 (50.80)	1.344 (34.14)	1-1/8-18UNEF-2B	.724(18.39)	1.290(32.77)	2.100(53.34)	2.850(72.39)	1.344(34.14)	1-1/8-18UNEF-2B
20	.724 (18.39)	2.125 (53.98)	1.469 (37.31)	1-1/4-18UNEF-2B	.724(18.39)	1.540(39.12)	2.100(53.34)	2.850(72.39)	1.469(37.31)	1-1/4-18UNEF-2B
22	.724 (18.39)	2.125 (53.98)	1.594 (40.49)	1-3/8-18UNEF-2B	.724(18.39)	1.540(39.12)	2.100(53.34)	2.850(72.39)	1.594(40.49)	1-3/8-18UNEF-2B
24	.724 (18.39)	2.125 (53.98)	1.719 (43.66)	1-1/2-18UNEF-2B	.724(18.39)	1.790(45.47)	2.281(57.94)	2.985(75.82)	1.719(43.66)	1-1/2-18UNEF-2B
28	.724 (18.39)	2.125 (53.98)	1.969 (50.01)	1-3/4-18UNS-2B	.724(18.39)	2.040(51.82)	2.485(63.12)	2.985(75.82)	1.969(50.01)	1-3/4-18UNS-2B
32	.724 (18.39)	2.180 (55.37)	1.219 (30.96)	2-18UNS-2B	.724(18.39)	2.290(58.17)	2.485(63.12)	2.985(75.82)	1.219(30.96)	2-18UNS-2B
36	.724 (18.39)	2.180 (55.37)	2.469 (62.71)	2-1/4-16UN-2B	.724(18.39)	2.540(64.52)	2.485(63.12)	2.985(75.82)	2.469(62.71)	2-1/4-16UN-2B
40	.724 (18.39)	2.180 (55.37)	2.723 (69.16)	2-1/2-16UN-2B						

Performance Specifications - Page A-84

Contact, Ceiling Plugs, Assembly Tools - Page A-105

Contact Arrangements - Page A-85 - A-89

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

www.ittcannon.com



MIL-DTL-5015 Connectors MS



A

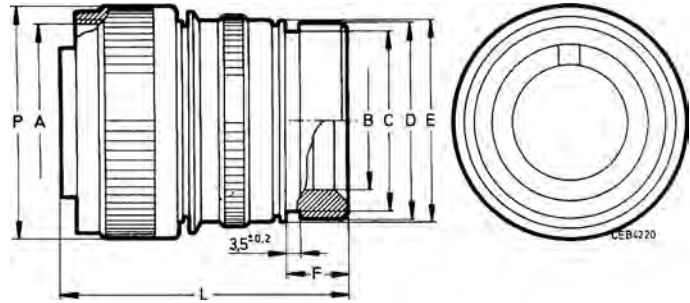
Circular



Straight Plug with Shrink Boot Adapter

CA3106E-DN

CA3106E-DN is a straight plug with endbell for shrink boot adapters. Crimp and solder versions are available (please indicate ...F80 or ...F183). CA3106-DN mate with 3100, 3101 and 3102 shell styles.



Order reference	A	B	C	D	E	F	L	P
Pin insert*	Thread	min.	max.	±0.2	±0,2	0,5	max.	max.
CA3106E10SL-**-P-DN	5/8-24NEF-2B	7,7	13,2	15,5	17,0	11,7	11,7	50,0
CA3106E12S-**-P-DN	3/4-20UNEF-2B	7,9	13,2	15,5	17,8	11,8	58,8	25,6
CA3106E14S-**-P-DN	7/8-20UNEF-2B	10,6	17,0	19,1	19,1	11,7	50,0	28,6
CA3106E16S-**-P-DN	1-20UNEF-2B	13,5	21,9	23,9	23,9	11,5	50,0	31,8
CA3106E12-**-P-DN	3/4-20UNEF-2B	7,9	13,2	15,5	17,8	11,7	50,0	25,6
CA3106E14-**-P-DN	7/8-20UNEF-2B	10,6	17,0	19,1	20,1	11,7	60,0	28,6
CA3106E16-**-P-DN	1-20UNEF-2B	13,5	21,9	23,9	23,5	11,5	60,0	31,8
CA3106E18-**-P-DN	1-1/8-18NEF-2B	14,6	21,9	23,9	26,5	12,7	60,0	34,1
CA3106E20-**-P-DN	1-1/4-18NEF-2B	18,5	26,6	29,6	30,2	12,7	65,0	37,3
CA3106E22-**-P-DN	1-3/8-18NEF-2B	20,8	26,2	29,6	33,6	12,7	65,0	40,5
CA3106E24-**-P-DN	1-1/2-16NEF-2B	24,6	34,5	37,8	36,1	12,7	65,0	43,8
CA3106E28-**-P-DN	1-3/4-18NS-2B	27,0	34,5	37,8	41,4	12,7	65,0	50,0
CA3106E32-**-P-DN	2-18NS-2B	33,3	43,6	47,8	48,6	15,2	70,0	56,3
CA3106E36-**-P-DN	2-1/4-16UN-2B	38,5	43,6	47,8	54,8	15,2	80,0	62,7

*For socket inserts substitute S for P

**Add contact arrangement number (see pages A-85 – A-89)



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Circular MIL Spec Connector](#) category:

Click to view products by [ITT](#) manufacturer:

Other Similar products are found below :

[0025-262-542](#) [0025-264-3014](#) [58-570121-04S](#) [0134-202-1200](#) [0134-207-1206](#) [0134-207-1800](#) [0134-207-2207](#) [0134-213-0806](#) [0134-213-1007](#) [0134-213-1009](#) [0134-213-1208](#) [0134-213-1800](#) [0134-213-2209](#) [0025-258-000](#) [015-9516-002](#) [60-042217-10P](#) [60-042722-19P](#) [0114-201-1278](#) [602GB06EG24-61SN](#) [0134-201-1207](#) [0134-201-1806](#) [0134-201-2006](#) [0134-201-2007](#) [0134-201-2010](#) [0134-202-1400](#) [0134-207-0809](#) [0134-207-1208](#) [0134-207-2009](#) [0134-213-1006](#) [6104-207-2302](#) [6104-208-1902](#) [6131-202-19149P](#) [6131-204-21149P](#) [6131-207-13149P](#) [6131-208-13149P](#) [6131-209-17149P](#) [6131-210-11149P](#) [6131-211-19149P](#) [6131-216-19149P](#) [6131-220-25149P](#) [6131-259-11149P](#) [6131-259-21149P](#) [6131-259-23149P](#) [6131-263-19149P](#) [6131-265-17149P](#) [6131-265-19149P](#) [CS3102A-20-15P](#) [CS3102A-20-15S](#) [CS3102A-28-15S](#) [CS3106A-10SL-53S](#)