



PRODUCT CATALOG

/ DEEP WELL TO DEEP SPACE

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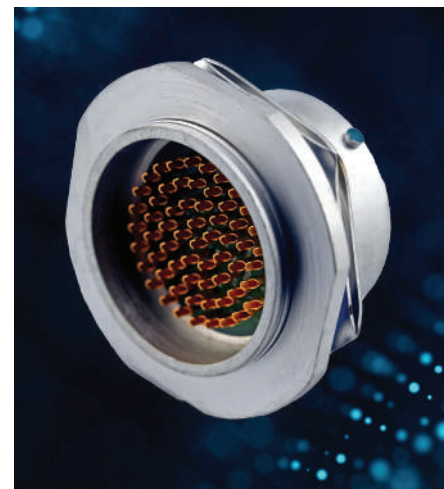


BoldX is a wise choice for your glass-to-metal needs. BoldX is a world-class manufacturer of circular, glass-to-metal, hermetically sealed connectors. Our Qualified Products List (QPL) consists of **MIL-DTL-83723** Series III, **MIL-DTL-38999** Series I, II and III. We build commercial equivalents to **MIL-DTL-26500**, **MIL-DTL-26482** Series I and II, as well as **MIL-DTL-5015** Series. We also supply your custom-design terminal seals, scoop-proof connectors, custom high-voltage applications, and harsh environment connectors. Whether your glass-to-metal requirement is standard or a special design, BoldX Industries is your wise choice.

Our facility contains state-of-the-art equipment, quality systems, and engineering. Our dedicated people will meet or exceed your expectations in a timely manner. Whether your applications call for mild steel or corrosion-resistant steels, we offer contacts in a variety of alloys including Alumel, Chromel and 52 alloy, as well as plating finishes to meet your design requirements.

Call BoldX for assistance with any of your projects or designs at **1-800-479-2193**.

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A SERIES

MIL-DTL-5015 hermetic connectors were developed for applications where a controlled atmosphere such as inert gasses, partial vacuums, or constant environments are needed. These receptacles are designed for use in electronic, electrical power, and control circuits.

The "A" Series receptacles are manufactured to BoldX Industries standards and meet the intermateability requirements of MIL-DTL-5015 as defined by MS33678. They are hermetically sealed with individual compression glass seals around each contact to prevent air leakage, in excess of .1 micron cubic foot per hour at one atmosphere.

Standard hermetic receptacles are supplied with either solder cup or eyelet type contact terminations. Contacts for other applications such as thermocouple or flex prints are also available. Standard receptacles are steel shells with tin plate and nickel-iron alloy contacts with a final coat of gold plate. Other materials and finishes can be supplied to meet specific application requirements.

"A" Series receptacles meet the instrumentation voltage requirements of MIL-DTL-5015. Connector receptacles with higher voltage ratings are available upon request. Connectors are designed to meet salt spray, shock, and vibration requirements of MIL-DTL-5015

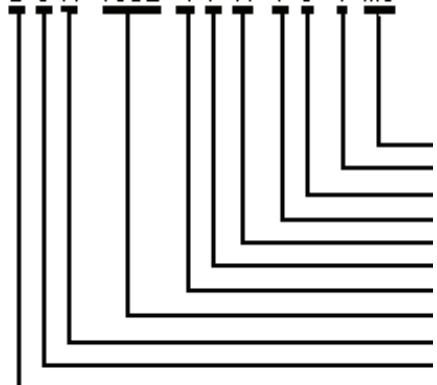
ELECTRICAL SERVICE DATA

The maximum current to be carried by the connector, based on contact size, is the same as permitted by the wire bundle. Maximum current ratings and corresponding voltage drops under test condition, fully assembled, are shown below.

CONTACT SIZE	TEST CURRENT (AMPS)	POTENTIAL DROP (MILLIVOLTS)
16	10	125
12	17	125
8	33	125
4	60	125
0	100	125

PART NUMBER EXPLANATION

2 0 A - 10SL - 4 P X - 1 0 - 1 M3



FINISH (NOTE 8)
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MOUNTING TYPE (NOTE 1)

STANDARD MATERIALS AND FINISHES

FERROUS ALLOY SHELLS

Material: Cold Rolled Steel per ASTM A108

Finish: 100 microinches minimum fused tin per ASTM B545 over suitable underplate

STAINLESS STEEL SHELLS

Material: Corrosion-resistant steel SS304L per SAEAMS-QQ-S-763 or as specified

Finish: Passivated

CONTACTS

Material: Nickel-iron alloy per MIL-I-23011, class 2

Finish: a. --Ferrous alloy shells; tin per ASTM B545 over copper per AMS 2418
b. --Stainless steel shells; 50 microinches minimum gold plate per MIL-DTL-45204 over suitable underplate

INSERTS

Material: Glass

INTERFACIAL GASKETS

Material: Fluorosilicone rubber

DESCRIPTION	MILITARY DESIGNATION	BOLDX DESIGNATION
BOX MOUNT	MS3142HS*C*P	3*A-*P-20
	MS3142HS*Y*P	3*A-*P-10
	MS3142HT*C*P	30A-*P-20
	MS3142HT*Y*P	30A-*P-10
SOLDER MOUNT CIRCULAR FLANGE	MS3143HS*C*P	2*A-*P-20
	MS3143HS*Y*P	2*A-*P-10
	MS3143HT*C*P	20A-*P-20
	MS3143HT*Y*P	20A-*P-10
SOLDER MOUNT FLANGELESS	NO CLASS H SPECIFIED	10A-*P-20 10A-*P-10
MATING PLUG	MS3106-MS3406-MS3456	

HIGH-POTENTIAL TEST VOLTAGE

When specified, receptacles can be supplied to meet the requirements of MIL-DTL-5015. Standard receptacles are supplied to the Instrument Voltage rating. Consult factory for available tooling.

SERVICE RATING	TEST VOLTAGE (RMS 60 CPS)
INSTRUMENT	1000
A	2000
D	2800
E	3500
B	4500
C	7000

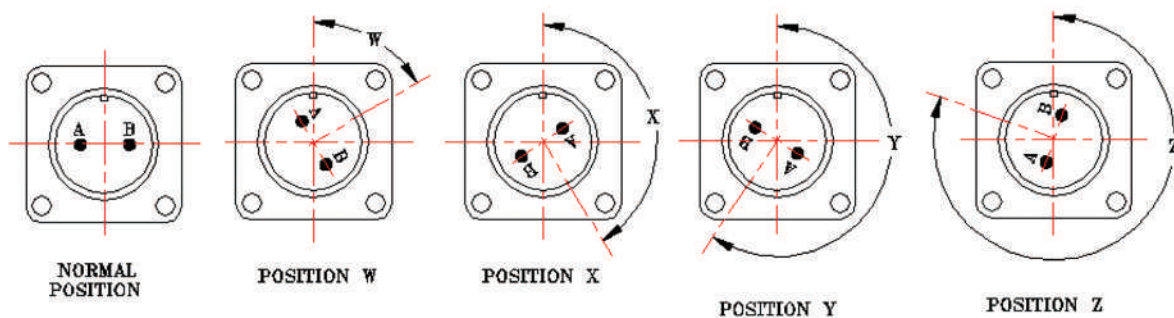
NOTES:

- 1-- 1-- Flangeless solder mount.
2-- Circular flange solder mount
3-- Square flange box mount
- 2-- 1 CRES PER SAE AMS-QQ-S-764, TYPE 303
2 CRES PER SAE AMS-QQ-S-763, TYPE 304
3 CRES PER SAE AMS-QQ-S-763, TYPE 304L
4 CRES PER SAE AMS-QQ-S-763, TYPE 316
5 CRES PER SAE AMS-QQ-S-763, TYPE 316L
6 CRES PER SAE AMS-QQ-S-763, TYPE 321
7 CRES PER SAE AMS-QQ-S-763, TYPE 347
- 3-- MIL-DTL-5015 intermateability
- 4-- P-- Pin
- 5-- 1-- Eyelet
2-- Solder cup
3-- Short solder cup
- 6-- 0-- Nickel-iron alloy
- 7-- Blank-- Without interfacial gasket
- 8-- A1-- Fused tin over copper (25 hour salt spray)
M3-- Fused tin over copper over nickel with gold on contacts
M2-- Gold contacts with passivated shell

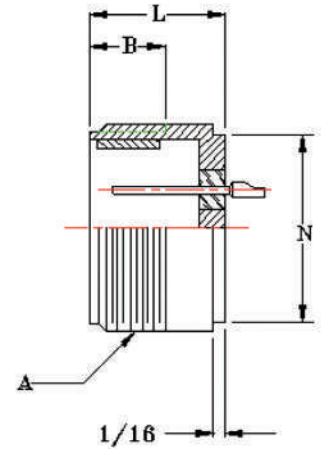
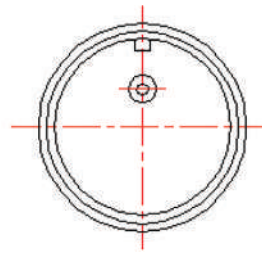
INDEX OF INSERT ARRANGEMENTS MIL-STD-1651

INSERT ARRANGEMENT	TOTAL CONTACTS	SERVICE RATING	CONTACT SIZE					ALTERNATE INSERT POSITIONS (DEGREES)			
			16	12	8	4	0	W	X	Y	Z
10SL-3	3	A	3								
10SL-4	2	A	2								
12S-3	2	A	2					70	145	215	290
12S-10	4	A	4								
14S-2	4	INSTRUMENT	4						120	240	
14S-5	5	INSTRUMENT	5					110			
14S-6	6	INSTRUMENT	6								
14S-7	3	A	3					90	180	270	
14S-9	2	A	2					70	145	215	290
16S-1	7	A	7					80			280
16S-5	3	A	3					70	145	215	290
16S-8	5	A	5						170	265	
16-9	4	A	2	2				35	110	250	325
16-10	3	A		3				90	180	270	
16-11	2	A		2				35	110	250	325
18-1	10	A FOR PINS: B,C,F&G INSTRUMENT FOR BALANCE	10					70	145	215	290
18-4	4	D	4					35	110	250	325
18-8	8	A	7	1				70			290
18-9	7	INSTRUMENT	5	2				80	110	250	280
18-11	5	A		5					170	265	
20-4	4	D		4				45	110	250	
20-14	5	A		3	2			80	110	250	280
20-15	7	A		7				80			280
20-16	9	A	7	2				80	110	250	280
20-22	6	A	3		3			80	110	250	280
20-24	4	A	2		2			35	110	250	325
20-27	14	A	14					35	110	250	325
20-29	17	A	17					80			280
20-33	11	A	11								
22-14	19	A	19					80	110	250	280
22-22	4	A			4				110	250	
22-27	9	D FOR PIN J. A FOR BALANCE	8		1			80		250	280
22-36	8	D FOR PIN H. A FOR BALANCE		8				90		270	
24-2	7	D		7				80			280
24-7	16	A	14	2				80	110	250	280
24-10	7	A			7			80			280
24-28	24	INSTRUMENT	24					80	110	250	280
28-1	9	D FOR PINS A,E & J. A FOR BALANCE		6	3			80	110	250	280
28-12	26	A	26					90	180	270	
28-17	15	B FOR PIN R. D FOR PINS: M,N,&P. A FOR BALANCE	15					80	110	250	280

ALTERNATE INSERT POSITIONS FRONT FACE OF PIN INSERT SHOWN



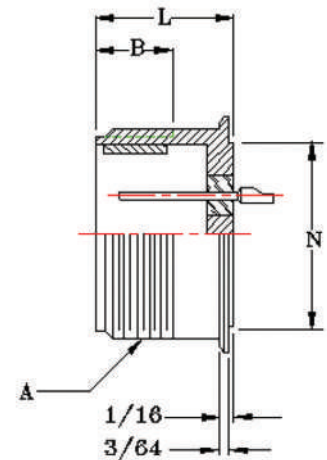
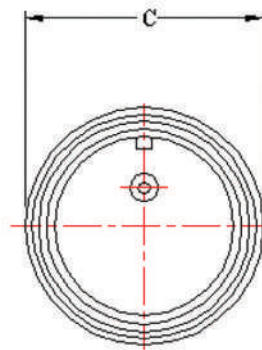
FLANGELESS SOLDER MOUNT 10A RECEPTACLES



SHELL SIZE	PART NUMBER	A THREAD CLASS 2A	B MIN THD	L +.005 -.010	N +.000 -.010
8S	10A-8S-(*)P▼-(**)	0.500-28 UNEF	0.375	0.718	0.437
10SL	10A-10SL-(*)P▼-(**)	0.625-24 UNEF			0.500
12S	10A-12S-(*)P▼-(**)	0.750-20 UNEF			0.656
14S	10A-14S-(*)P▼-(**)	0.875-20 UNEF			0.718
16S	10A-16S-(*)P▼-(**)	1.000-20 UNEF			0.844
16	10A-16-(*)P▼-(**)	1.000-20 UNEF	0.625	0.906	0.844
18	10A-18-(*)P▼-(**)	1.125-18 UNEF			0.968
20	10A-20-(*)P▼-(**)	1.250-18 UNEF			1.156
22	10A-22-(*)P▼-(**)	1.375-18 UNEF			1.250
24	10A-24-(*)P▼-(**)	1.500-18 UNEF			1.375
28	10A-28-(*)P▼-(**)	1.750-18 UNS			1.625
32	10A-32-(*)P▼-(**)	2.000-18 UNS			1.875

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

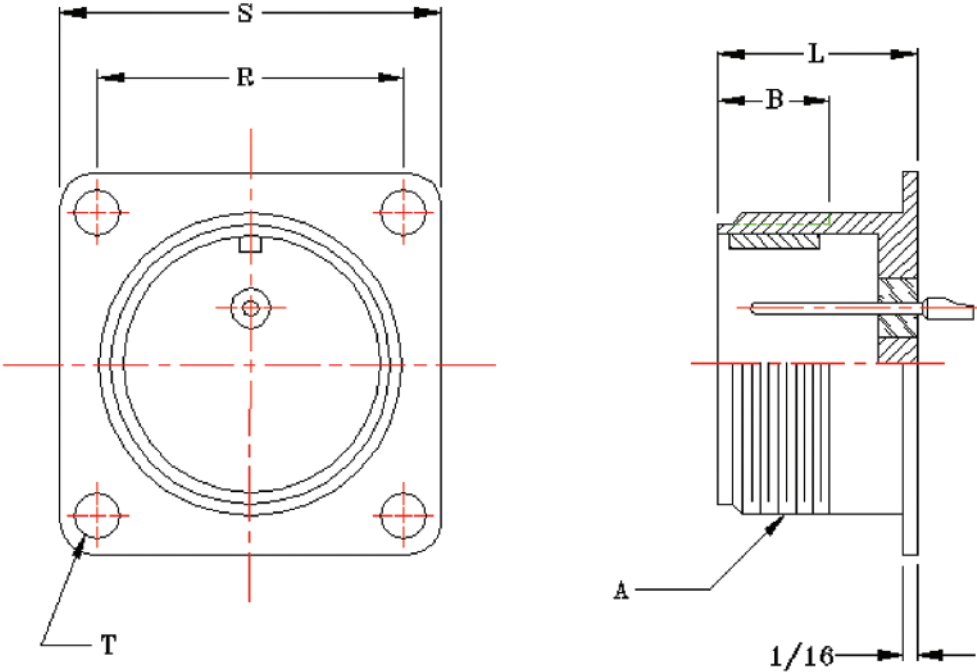
CIRCULAR FLANGE SOLDER MOUNT 20A RECEPTACLES (REF. MS3143)



SHELL SIZE	PART NUMBER	A THREAD CLASS 2A	B MIN THD	C +.010 -.010	L +.005 -.010	N +.000 -.010
8S	20A-8S-(*)P▼-(**)	0.500-28 UNEF	0.375	0.750	0.718	0.437
10SL	20A-10SL-(*)P▼-(**)	0.625-24 UNEF		0.875		0.500
12S	20A-12S-(*)P▼-(**)	0.750-20 UNEF		1.000		0.656
14S	20A-14S-(*)P▼-(**)	0.875-20 UNEF		1.125		0.718
16S	20A-16S-(*)P▼-(**)	1.000-20 UNEF		1.250		0.844
16	20A-16-(*)P▼-(**)	1.000-20 UNEF	0.625	1.250	0.906	0.844
18	20A-18-(*)P▼-(**)	1.125-18 UNEF		1.375		0.968
20	20A-20-(*)P▼-(**)	1.250-18 UNEF		1.500		1.156
22	20A-22-(*)P▼-(**)	1.375-18 UNEF		1.625		1.250
24	20A-24-(*)P▼-(**)	1.500-18 UNEF		1.750		1.375
28	20A-28-(*)P▼-(**)	1.750-18 UNS		2.000		1.625
32	20A-32-(*)P▼-(**)	2.000-18 UNS		2.250		1.875

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

BOX MOUNT
30A RECEPTACLES (REF. MS3142)



SHELL SIZE	PART NUMBER	A THREAD CLASS 2A	B MIN THD	L +.005 -.010	R +.005 -.005	S +.031 -.031	T +.005 -.005
8S	30A-8S-(*)P▼-(**)	0.500-28 UNEF	0.375	0.718	0.594	0.875	0.120
10SL	30A-10SL-(*)P▼-(**)	0.625-24 UNEF			0.718	1.000	
12S	30A-12S-(*)P▼-(**)	0.750-20 UNEF			0.812	1.094	
14S	30A-14S-(*)P▼-(**)	0.875-20 UNEF			0.906	1.188	
16S	30A-16S-(*)P▼-(**)	1.000-20 UNEF			0.968	1.281	
16	30A-16-(*)P▼-(**)	1.000-20 UNEF	0.625	0.906	0.968	1.281	0.147
18	30A-18-(*)P▼-(**)	1.125-18 UNEF			1.062	1.375	
20	30A-20-(*)P▼-(**)	1.250-18 UNEF			1.156	1.500	
22	30A-22-(*)P▼-(**)	1.375-18 UNEF			1.250	1.625	
24	30A-24-(*)P▼-(**)	1.500-18 UNEF			1.375	1.750	0.173
28	30A-28-(*)P▼-(**)	1.750-18 UNS			1.562	2.000	
32	30A-32-(*)P▼-(**)	2.000-18 UNS			1.750	2.25	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

B SERIES

MIL-DTL-38999 hermetic connectors were developed for applications where a controlled atmosphere such as inert gasses, partial vacuums, or constant environments are needed. These receptacles are designed for use in aerospace, electronic, electrical power, and control circuits.

The “B” Series receptacles are manufactured to BoldX Industries standards and meet the intermateability requirements of MIL-DTL-38999 Series I. They are hermetically sealed with an all-glass seal to prevent air leakage in excess of .01 micron cubic foot per hour at one atmosphere. They are manufactured with conductive finishes to provide electrical continuity between mated halves prior to contact engagement. Manufactured in the scoop-proof design, the contacts are located so as to prevent handling damage or inadvertent electrical contact.

Standard hermetic receptacles are supplied with either solder cup or eyelet type contact terminations. Contacts for other applications such as thermocouple or flex prints are also available. Standard receptacles are steel shells with nickel-iron alloy contacts and a final coat of tin plate and gold plated nickel-iron alloy contacts; or stainless steel shells passivated with gold plated contacts. Other materials and finishes can be supplied to meet specific application requirements.

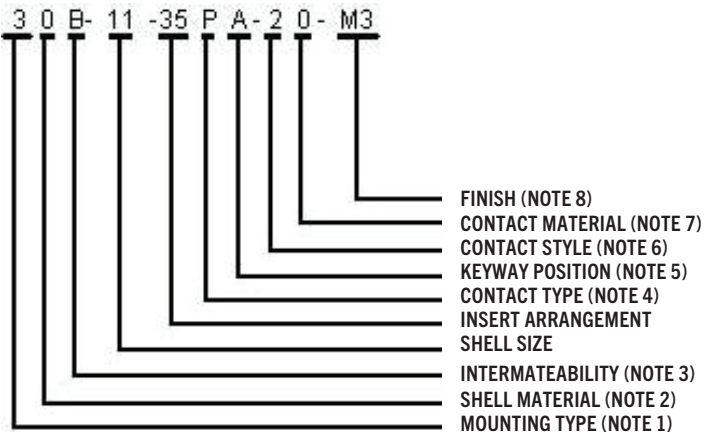
“B” Series receptacles meet the voltage, salt spray, shock, and vibration requirements of MIL-DTL-38999.

ELECTRICAL SERVICE DATA

The maximum current to be carried by the connector, based on contact size, is the same as permitted by the wire bundle. Maximum current ratings and corresponding voltage drops under test condition, fully assembled, are shown below.

CONTACT SIZE	TEST CURRENT (AMPS)	POTENTIAL DROP (MILLIVOLTS)
22D	2	85
20	5	60
16	10	85
12	17	85

PART NUMBER EXPLANATION



STANDARD MATERIALS AND FINISHES

FERROUS ALLOY SHELLS

Material: Cold Rolled Steel per ASTM A108

Finish: 100 microinches minimum fused tin per ASTM B545 over suitable underplate

STAINLESS STEEL SHELLS

Material: Corrosion-resistant steel per SS304L per SAE AMS-QQ-S-763, type 303 or as specified

Finish: Passivated

CONTACTS

Material: Nickel-iron alloy per MIL-I-23011, class 2

Finish: 50 microinches minimum gold per MIL-DTL-45204 over a suitable underplate

BAYONET PINS

Material: Corrosion-resistant steel per SAE AMS-, type 303

INSERTS

Material: Glass

INTERFACIAL GASKETS

Material: Fluorosilicone rubber

DESCRIPTION	MILITARY DESIGNATION	BOLDX DESIGNATION
JAM NUT MOUNT	MS27470Y*D*P	50B-*.P-20
	MS27470Y*D*X	50B-*.P-10
	MS27470Y*E*P	5*B-*.P-20
	MS27470Y*E*X	5*B-*.P-10
SOLDER MOUNT	MS27471Y*D*P	20B-*.P-20
	MS27471Y*D*X	20B-*.P-10
	MS27471Y*E*P	2*B-*.P-20
	MS27471Y*E*X	2*B-*.P-10
BOX MOUNT	NO SPECIFIED HERMETIC	30B-*.P-20
		30B-*.P-10
		3*B-*.P-20
		3*B-*.P-10
MATING PLUG	MS27467	

HIGH-POTENTIAL TEST VOLTAGE

SERVICE RATING	TEST VOLTAGE (RMS 60 CPS)
N	1000
M	1300
I	1800
II	2300

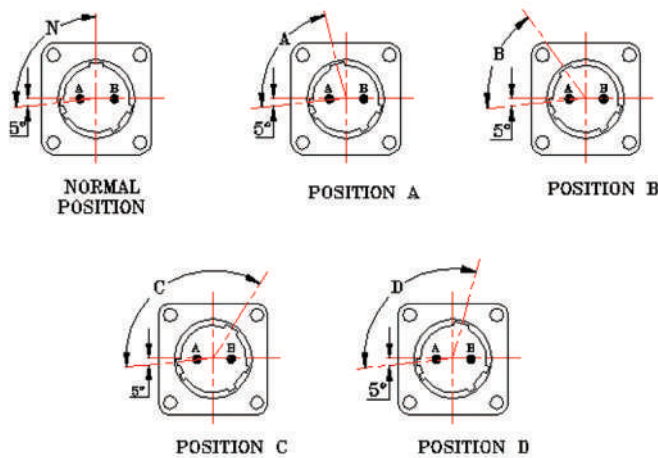
NOTES:

- 1--- Circular flange solder mount
3--- Square flange box mount
5--- Jam nut mount
- 2--- 0 FERROUS ALLOY PER ASTM A108
1 CRES PER SAE AMS-QQ-S-764, TYPE 303
2 CRES PER SAE AMS-QQ-S-763, TYPE 304
3 CRES PER SAE AMS-QQ-S-763, TYPE 304L
4 CRES PER SAE AMS-QQ-S-763, TYPE 316
5 CRES PER SAE AMS-QQ-S-763, TYPE 316L
6 CRES PER SAE AMS-QQ-S-763, TYPE 321
7 CRES PER SAE AMS-QQ-S-763, TYPE 347
- 3--- MIL-DTL-38999 series I intermateability
- 4--- P---Pin
- 5--- Alternate keyway position
- 6--- 1---Eyelet
2---Solder cup
- 7--- 0---Nickel-iron alloy
- 8--- M3--Fused tin over copper over nickel with gold on contacts
M2--Gold contacts with passivated shell
M8--Gold contacts with nickel shell plated

INDEX OF INSERT ARRANGEMENTS MIL-STD-1560

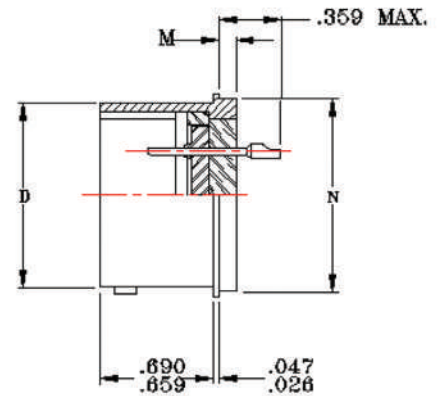
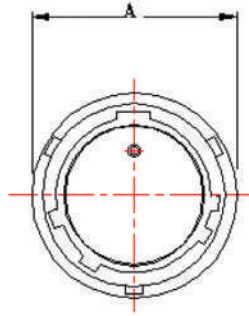
SHELL SIZE	INSERT ARRANGEMENT	TOTAL CONTACTS	CONTACT SIZE				SERVICE RATING
			22	20	16	12	
9	35	6	6				M
	98	3		3			I
11	5	5		5			I
	35	13	13				M
	98	6		6			I
	99	7		7			I
13	4	4			4		II
	8	8		8			I
	35	22	22				M
	98	10		10			I
15	5	5			5		II
	15	15		14	1		I
	18	18		18			I
	19	19		19			I
	35	37	37				M
	97	12		8	4		I
17	8	8			8		II
	26	26		26			I
	35	55	55				M
19	30	30		29	1		I
	32	32		32			I
	35	66	66				M
21	16	16			16		II
	35	79	79				M
	39	39		37	2		I
	41	41		41			I
	35	100	100				M
25	35	128	128				M
	61	61		61			I

MASTER KEYWAY POSITIONS FRONT FACE OF PIN INSERT SHOWN



SHELL SIZE	NORMAL POSITION	LOCATION OF ALTERNATE MASTER KEYWAY POSITION IN DEGREES			
	N	A	B	C	D
9	95	77	-	-	113
11		81	67	123	109
13		75	63	127	115
15		74	61	129	116
17		77	65	125	113
19		77	65	125	113
21		77	65	125	113
23		80	69	121	110
25		80	69	121	110

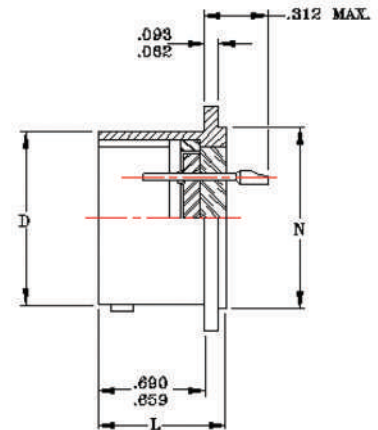
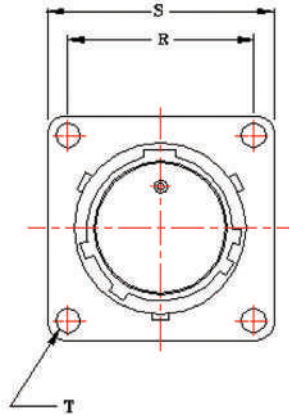
SOLDER MOUNT 20B RECEPTACLES (REF. MS27471)



SHELL SIZE	PART NUMBER	A +.016 -.016	D +.001 -.005	M MAX	N +.001 -.005
9	20B-9-(*)P▼-(**)	0.750	0.572	.187	0.672
11	20B-11-(*)P▼-(**)	0.844	0.700		0.781
13	20B-13-(*)P▼-(**)	0.969	0.850		0.906
15	20B-15-(*)P▼-(**)	1.094	0.975		1.031
17	20B-17-(*)P▼-(**)	1.218	1.100		1.156
19	20B-19-(*)P▼-(**)	1.312	1.207		1.250
21	20B-21-(*)P▼-(**)	1.438	1.332	.218	1.375
23	20B-23-(*)P▼-(**)	1.563	1.457		1.500
25	20B-25-(*)P▼-(**)	1.688	1.582		1.625

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

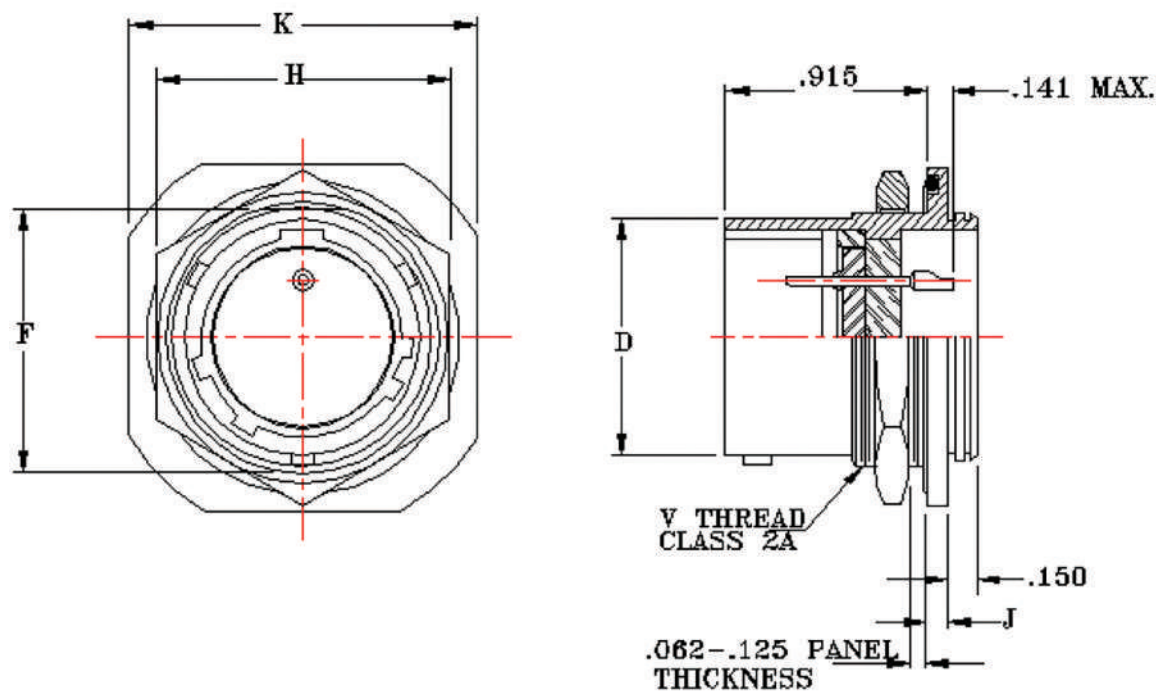
BOX MOUNT 30B RECEPTACLES



SHELL SIZE	PART NUMBER	D +.001 -.005	L REF	N -.001 -.005	R +.005 -.005	S +.0016 -.0016	T +.0010 -.0005
9	30B-9-(*)P▼-(**)	0.572	0.775	0.672	0.719	0.938	0.128
11	30B-11-(*)P▼-(**)	0.700		0.781	0.812	1.031	
13	30B-13-(*)P▼-(**)	0.850		0.906	0.906	1.125	
15	30B-15-(*)P▼-(**)	0.975		1.031	0.969	1.219	
17	30B-17-(*)P▼-(**)	1.100		1.156	1.062	1.312	
19	30B-19-(*)P▼-(**)	1.207		1.250	1.156	1.438	
21	30B-21-(*)P▼-(**)	1.332	0.781	1.375	1.250	1.562	0.147
23	30B-23-(*)P▼-(**)	1.457	0.795	1.500	1.375	1.688	
25	30B-25-(*)P▼-(**)	1.528	0.805	1.625	1.500	1.812	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

JAM NUT MOUNT
50B RECEPTACLES (REF. MS27470)



SHELL SIZE	PART NUMBER	D	F	H	J	K	V THREAD CLASS 2A
		+0.001 -0.005	+0.000 -0.010	+0.016 -0.016	+0.016 -0.016	+0.016 -0.016	
9	50B-9-(*)P▼-(**)	0.572	0.655	0.875	0.109	1.062	.6875-24 UNEF
11	50B-11-(*)P▼-(**)	0.700	0.755	1.000		1.250	.8125-20 UNEF
13	50B-13-(*)P▼-(**)	0.850	0.942	1.188		1.375	1.000-20 UNEF
15	50B-15-(*)P▼-(**)	0.975	1.066	1.312		1.500	1.1250-18 UNEF
17	50B-17-(*)P▼-(**)	1.100	1.191	1.438		1.625	1.2500-18 UNEF
19	50B-19-(*)P▼-(**)	1.207	1.316	1.562	0.140	1.812	1.3750-18 UNEF
21	50B-21-(*)P▼-(**)	1.332	1.441	1.688		1.938	1.5000-18 UNEF
23	50B-23-(*)P▼-(**)	1.457	1.566	1.812		2.062	1.6250-18 UNEF
25	50B-25-(*)P▼-(**)	1.582	1.691	2.000		2.188	1.7500-18 UNS

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

C SERIES

MIL-DTL-38999 hermetic connectors were developed for applications where a controlled atmosphere such as inert gasses, partial vacuums, or constant environments are needed. These receptacles are designed for use in aerospace, electronic, electrical power, and control circuits.

The “C” Series receptacles are manufactured to BoldX Industries standards and meet the intermateability requirements of MIL-DTL-38999 Series II. They are hermetically sealed with an all-glass seal to prevent air leakage in excess of .01 micron cubic foot per hour at one atmosphere. They are manufactured with conductive finishes to provide electrical continuity between mated halves prior to contact engagement. These connectors are manufactured in the low-silhouette design to minimize weight and size.

Standard hermetic receptacles are supplied with either solder cup or eyelet type contact terminations. Contacts for other applications such as thermocouple or flex prints are also available. Standard receptacles are steel shells with tin plating and gold plated, nickel-iron alloy contacts, or stainless steel shells passivated with gold plated, nickel-iron contacts. Other materials and finishes can be supplied to meet specific application requirements.

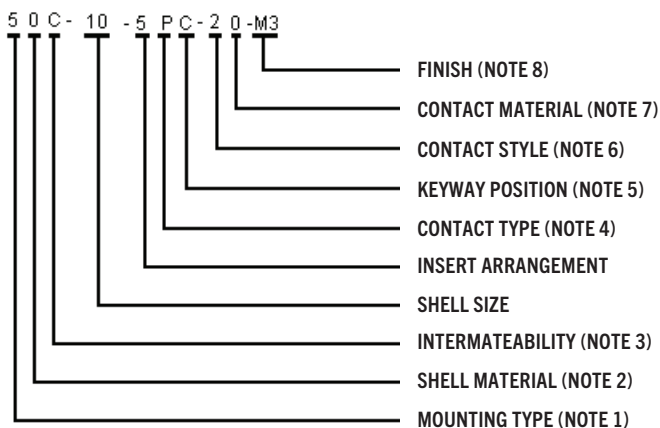
“C” Series receptacles meet the voltage, salt spray, shock, and vibration requirements of MIL-DTL-38999.

ELECTRICAL SERVICE DATA

The maximum current to be carried by the connector, based on contact size, is the same as permitted by the wire bundle. Maximum current ratings and corresponding voltage drops under test condition, fully assembled, are shown below.

CONTACT SIZE	TEST CURRENT (AMPS)	POTENTIAL DROP (MILLIVOLTS)
22D	2	85
20	5	60
16	10	85
12	17	85

PART NUMBER EXPLANATION



STANDARD MATERIALS AND FINISHES

FERROUS ALLOY SHELLS

Material: Cold Rolled Steel per ASTM A108

Finish: 100 microinches minimum fused tin per ASTM B545 over suitable underplate

STAINLESS STEEL SHELLS

Material: Corrosion-resistant steel per SS304L per SAE AMS-QQ-S-763, type 303 or as specified

Finish: Passivated

CONTACTS

Material: Nickel-iron alloy per MIL-I-23011, class 2

Finish: 50 microinches minimum gold per MIL-DTL-45204 over a suitable underplate

INSERT PINS

Material: Fluorosilicone rubber

INTERFACIAL SEALS

Material: Glass

BAYONET PINS

Material: Corrosion-resistant steel per SAE AMS- type 303

DESCRIPTION	MILITARY DESIGNATION	BOLDX DESIGNATION
BOX MOUNT	MS27476Y*D*P	30C-*P-20
	MS27476Y*D*X	30C-*P-10
	MS27476Y*E*P	3*C-*P-20
	MS27476Y*E*X	3*C-*P-10
JAM NUT MOUNT	MS27477Y*D*P	50C-*P-20
	MS27477Y*D*X	50C-*P-10
	MS27477Y*E*P	5*C-*P-20
	MS27477Y*E*X	5*C-*P-10
SOLDER MOUNT	MS27478Y*D*P	20C-*P-20
	MS27478Y*D*X	20C-*P-10
	MS27478Y*E*P	2*C-*P-20
	MS27478Y*E*X	2*C-*P-10
MATING PLUG	MS27473 - MS27484	

HIGH-POTENTIAL TEST VOLTAGE

SERVICE RATING	TEST VOLTAGE (RMS 60 CPS)
M	1300
I	1800
II	2300

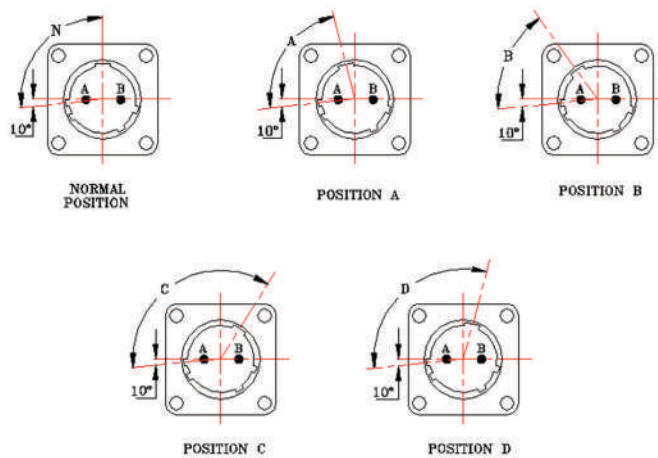
NOTES:

- 1.-- 2-- Circular flange solder mount
3-- Square flange box mount
5-- Jam nut mount
- 2.-- 0 FERROUS ALLOY PER ASTM A108
1 CRES PER SAE AMS-QQ-S-764, TYPE 303
2 CRES PER SAE AMS-QQ-S-763, TYPE 304
3 CRES PER SAE AMS-QQ-S-763, TYPE 304L
4 CRES PER SAE AMS-QQ-S-763, TYPE 316
5 CRES PER SAE AMS-QQ-S-763, TYPE 316L
6 CRES PER SAE AMS-QQ-S-763, TYPE 321
7 CRES PER SAE AMS-QQ-S-763, TYPE 347
- 3.-- MIL-DTL-38999 series II intermateability
- 4.-- P-- Pin
- 5.-- Alternate keyway position
- 6.-- 1-- Eyelet
2-- Solder cup
- 7.-- 0-- Nickel-iron alloy
- 8.-- M3-- Fused tin over copper over nickel with Gold on contacts
M2-- Gold contacts with passivated shell
M8-- Gold contacts with nickel shell plated

INDEX OF INSERT ARRANGEMENTS MIL-STD-1560

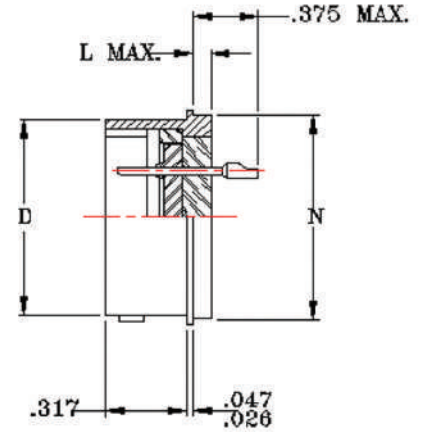
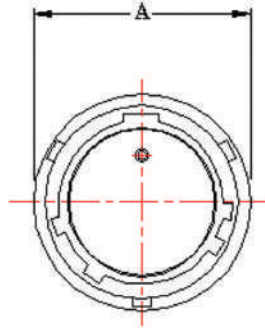
SHELL SIZE	INSERT ARRANGEMENT	TOTAL CONTACTS	CONTACT SIZE				SERVICE RATING
			22	20	16	12	
8	35	6	6				M
	98	3		3			I
10	5	5		5			I
	35	13	13				M
	98	6		6			I
	99	7		7			I
12	4	4			4		II
	8	8		8			I
	35	22	22				M
	98	10		10			I
14	5	5			5		II
	15	15		14	1		I
	18	18		18			I
	19	19		19			I
	35	37	37				M
	97	12		8	4		I
16	8	8			8		II
	26	26		26			I
	35	55	55				M
18	30	30		29	1		I
	32	32		32			I
	35	66	66				M
20	16	16			16		II
	35	79	79				M
	39	39		37	2		I
	41	41		41			I
22	35	100	100				M
24	35	128	128				M
	61	61		61			I

MASTER KEYWAY POSITIONS FRONT FACE OF PIN INSERT SHOWN



SHELL SIZE	NORMAL POSITION	LOCATION OF ALTERNATE MASTER KEYWAY POSITION IN DEGREES			
	N	A	B	C	D
8	100	82	-	-	118
10		86	72	128	114
12		80	68	132	120
14		79	66	134	121
16		82	70	130	118
18		82	70	130	118
20		82	70	130	118
22		85	74	126	115
24		85	74	126	115

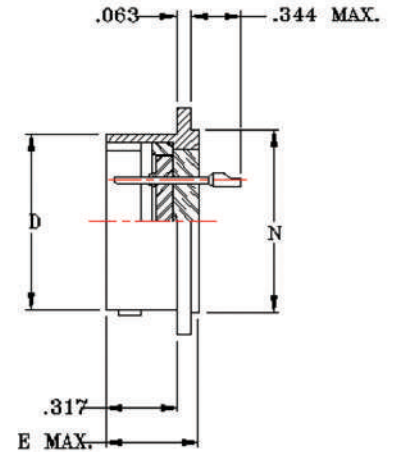
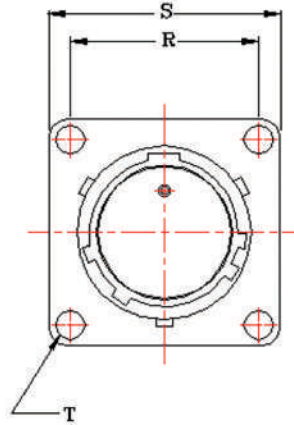
SOLDER MOUNT 20C RECEPTACLES (REF. MS27478)



SHELL SIZE	PART NUMBER	A +.011 -.010	D +.001 -.005	L MAX	N +.001 -.005
8	20C-8-(*)P▼-(**)	0.687	0.473	0.125	0.562
10	20C-10-(*)P▼-(**)	0.797	0.590		0.672
12	20C-12-(*)P▼-(**)	0.906	0.750		0.781
14	20C-14-(*)P▼-(**)	1.031	0.875		0.906
16	20C-16-(*)P▼-(**)	1.156	1.000		1.031
18	20C-18-(*)P▼-(**)	1.281	1.125		1.156
20	20C-20-(*)P▼-(**)	1.375	1.250	0.156	1.250
22	20C-22-(*)P▼-(**)	1.500	1.375		1.375
24	20C-24-(*)P▼-(**)	1.625	1.500		1.500

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

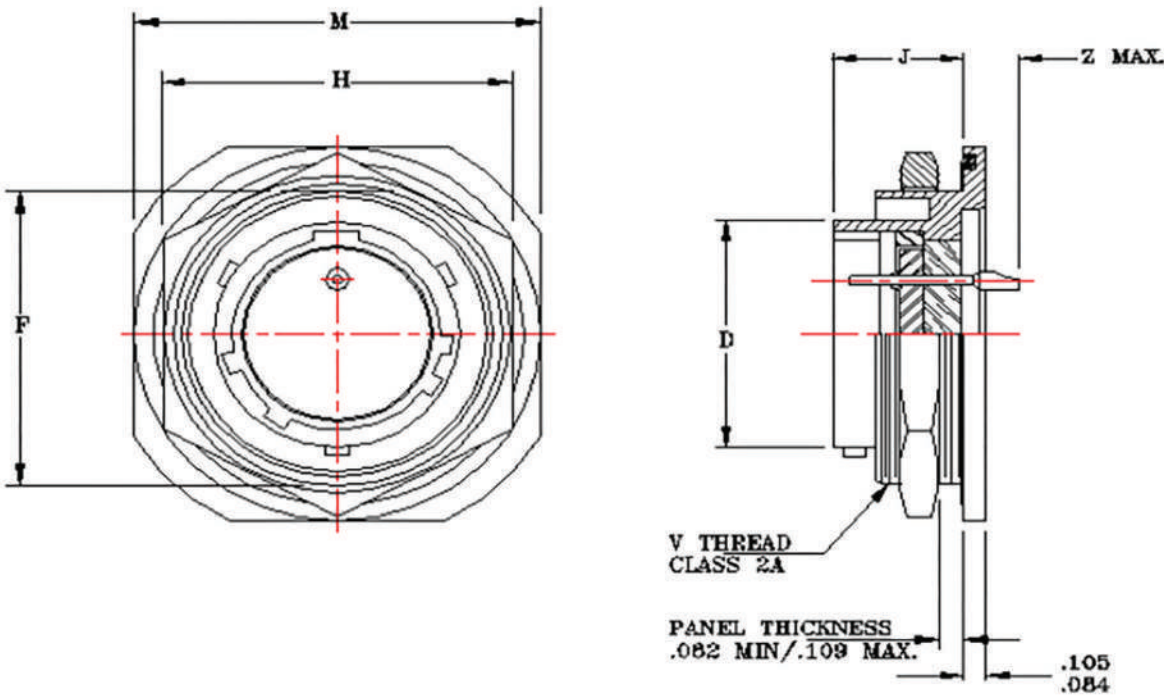
BOX MOUNT 30C RECEPTACLES (REF. MS27476)



SHELL SIZE	PART NUMBER	D +.001 -.005	E MAX	N -.001 -.005	R +.005 -.005	S +.0015 -.0015	T +.001 -.0005
8	30C-8-(*)P▼-(**)	0.473	0.453	0.562	0.594	0.812	0.128
10	30C-10-(*)P▼-(**)	0.590		0.672	0.719	0.938	
12	30C-12-(*)P▼-(**)	0.750		0.781	0.812	1.031	
14	30C-14-(*)P▼-(**)	0.875		0.906	0.906	1.125	
16	30C-16-(*)P▼-(**)	1.000		1.031	0.969	1.219	
18	30C-18-(*)P▼-(**)	1.125		1.156	1.062	1.312	
20	30C-20-(*)P▼-(**)	1.250	0.484	1.250	1.156	1.438	0.147
22	30C-22-(*)P▼-(**)	1.375		1.375	1.250	1.562	
24	30C-24-(*)P▼-(**)	1.500		1.500	1.375	1.688	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

JAM NUT MOUNT
50C RECEPTACLES (REF. MS27477)



SHELL SIZE	PART NUMBER	D +0.001 -0.005	F +.001 -.006	H +.016 -.016	J +.005 -.005	M +.016 -.016	V THREAD CLASS 2A	Z MAX
8	50C-8-(*)P▼-(**)	0.473	0.817	1.062	0.438	1.250	.8750-20 UNEF	0.281
10	50C-10-(*)P▼-(**)	0.590	0.941	1.188		1.375	1.0000-20 UNEF	
12	50C-12-(*)P▼-(**)	0.750	1.065	1.312		1.500	1.1250-18 UNEF	
14	50C-14-(*)P▼-(**)	0.875	1.190	1.438		1.625	1.2500-18 UNEF	
16	50C-16-(*)P▼-(**)	1.000	1.320	1.562		1.781	1.3750-18 UNEF	
18	50C-18-(*)P▼-(**)	1.125	1.440	1.688		1.890	1.5000-18 UNEF	
20	50C-20-(*)P▼-(**)	1.250	1.565	1.812	0.464	2.016	1.6250-18 UNEF	0.250
22	50C-22-(*)P▼-(**)	1.375	1.690	2.000		2.140	1.7500-18 UNS	
24	50C-24-(*)P▼-(**)	1.500	1.815	2.125		2.265	1.8750-16 UN	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

D SERIES

MIL-DTL-38999 hermetic connectors were developed for applications where a controlled atmosphere such as inert gasses, partial vacuums, or constant environments are needed. These receptacles are designed for use in aerospace, electronic, electrical power, and control circuits.

The “D” Series receptacles are manufactured to BoldX Industries standards and meet the intermateability requirements of MIL-DTL-38999 Series III. They are hermetically sealed with an all-glass seal to prevent air leakage in excess of 1. micron cubic foot per hour at one atmosphere.

They are manufactured with conductive finishes to provide electrical continuity between mated halves prior to contact engagement. Manufactured in scoop-proof design, the contacts are located so as to prevent handling damage or inadvertent electrical contact.

Standard hermetic receptacles are supplied with either solder cup or eyelet type contact terminations. Contacts for other applications such as thermocouple or flex prints are also available. Standard receptacles are stainless steel shells passivated with gold plated nickel-iron alloy contacts. Other materials and finishes can be supplied to meet specific application requirements.

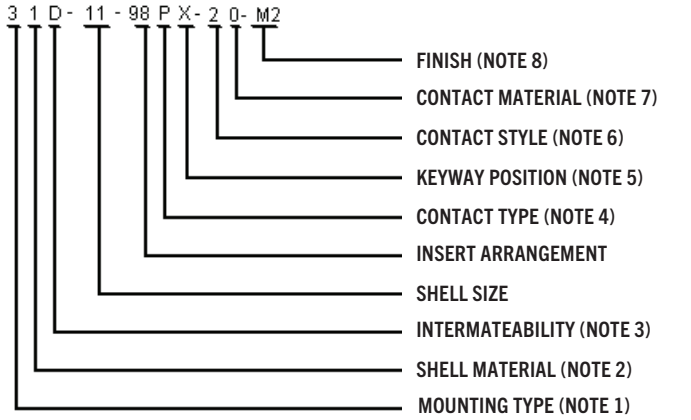
“D” Series receptacles meet the voltage, salt spray, shock, and vibration requirements of MIL-DTL-38999.

ELECTRICAL SERVICE DATA

The maximum current to be carried by the connector, based on contact size, is the same as permitted by the wire bundle. Maximum current ratings and corresponding voltage drops under test condition, fully assembled, are shown below.

CONTACT SIZE	TEST CURRENT (AMPS)	POTENTIAL DROP (MILLIVOLTS)
22D	2	85
20	5	60
16	10	85
12	17	85

PART NUMBER EXPLANATION



STANDARD MATERIALS AND FINISHES

STAINLESS STEEL SHELLS

Material: Corrosion-resistant steel per SS304L per SAE AMS-QQ-S-763, type 303 or as specified
Finish: Passivated or nickel per AMS-QQ-N-290

CONTACTS

Material: Nickel-iron alloy per MIL-I-23011, class 2
Finish: 50 microinches minimum gold per MIL-DTL-45204 over a suitable underplate

INSERT INTERFACIAL SEALS

Material: Glass Material: Fluorosilicone rubber

DESCRIPTION	MILITARY DESIGNATION	BOLDX DESIGNATION
BOX MOUNT	D38999/21Y**PN	3*D-**-PN-20-M2
	D38999/21Y**XN	3*D-**-PN-10-M2
	D38999/21N**PN	3*D-**-PN-20-M8
	D38999/21N**XN	3*D-**-PN-10-M8
JAM NUT MOUNT	D38999/23Y**PN	5*D-**-PN-20-M2
	D38999/23Y**XN	5*D-**-PN-10-M2
	D38999/23N**PN	5*D-**-PN-20-M8
	D38999/23N**XN	5*D-**-PN-10-M8
SOLDER MOUNT	D38999/25Y**PN	2*D-**-PN-20-M2
	D38999/25Y**XN	2*D-**-PN-10-M2
	D38999/25N**PN	2*D-**-PN-20-M8
	D38999/25N**XN	2*D-**-PN-10-M8
WELD MOUNT	D38999/27Y**PN	6*D-**-PN-20-M2
	D38999/27Y**XN	6*D-**-PN-10-M2
	D38999/27N**PN	6*D-**-PN-20-M8
	D38999/27N**XN	6*D-**-PN-10-M8
MATING PLUG	D38999/26	

HIGH-POTENTIAL TEST VOLTAGE

SERVICE RATING	TEST VOLTAGE (RMS 60 CPS)
M	1300
I	1800
II	2300

NOTES:

1. -- 2-- Circular flange solder mount
3-- Square flange box mount
5-- Jam nut mount
6-- Circular flange weld mount

2. -- 1 CRES PER SAE AMS-QQ-S-764, TYPE 303
2 CRES PER SAE AMS-QQ-S-763, TYPE 304
3 CRES PER SAE AMS-QQ-S-763, TYPE 304L
4 CRES PER SAE AMS-QQ-S-763, TYPE 316
5 CRES PER SAE AMS-QQ-S-763, TYPE 316L
6 CRES PER SAE AMS-QQ-S-763, TYPE 321
7 CRES PER SAE AMS-QQ-S-763, TYPE 347

3. -- MIL-DTL-38999 Series III intermateability

4. -- P--Pin

5. -- Keyway position
6. -- 1--Eyelet
2--Solder cup

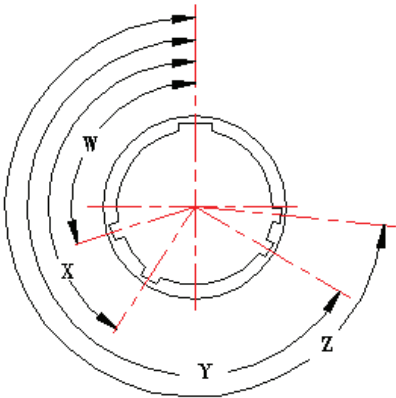
7. -- 0--Nickel-iron alloy

8. -- M2-- Gold contacts with shell passivated
M8-- Gold contacts with shell nickel plated

INDEX OF INSERT ARRANGEMENTS
MIL-STD-1560

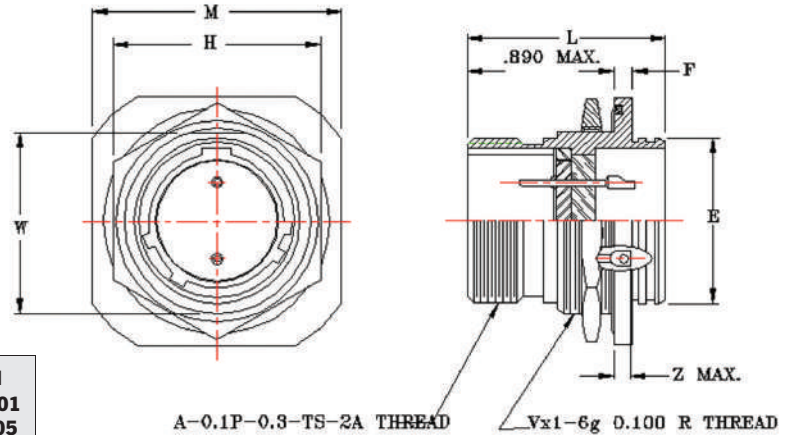
SHELL SIZE	INSERT ARRANGEMENT	TOTAL CONTACTS	CONTACT SIZE				SERVICE RATING
			22	20	16	12	
9	35	6	6				M
	98	3		3			I
11	5	5		5			I
	35	13	13				M
	98	6		6			I
	99	7		7			I
13	4	4			4		II
	8	8		8			I
	35	22	22				M
	98	10		10			I
15	5	5			5		II
	15	15		14	1		I
	18	18		18			I
	19	19		19			I
	35	37	37				M
	97	12		8	4		I
17	8	8			8		II
	26	26		26			I
	35	55	55				M
19	30	30		29	1		I
	32	32		32			I
	35	66	66				M
	16	16			16		II
21	35	79	79				M
	39	39		37	2		I
	41	41		41			I
23	35	100	100				M
25	35	128	128				M
	61	61		61			I

MASTER KEYWAY POSITIONS
FRONT FACE OF PIN INSERT SHOWN



SHELL SIZE	KEYWAY POSITION	W°	X°	Y°	Z°
9	N	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
11, 13, and 15	E	91	131	197	240
	N	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
17, 19, 23, and 25	D	119	146	176	298
	E	51	141	184	242
	N	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272

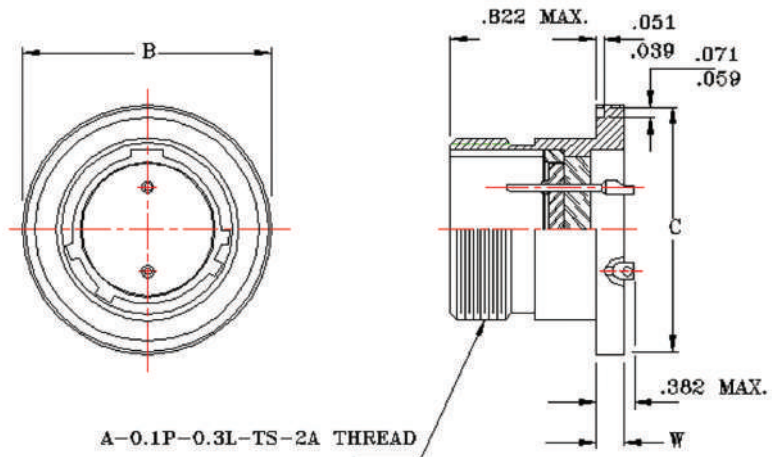
SOLDER MOUNT 21D RECEPTACLES (REF. D38999/25)



SHELL SIZE	PART NUMBER	A THREAD	B +.010 -.010	L MAX	N +.001 -.005
9	2*D-9-(*)P▼-(**)	0.6250	0.750	0.200	0.672
11	2*D-11-(*)P▼-(**)	0.7500	0.844		0.781
13	2*D-13-(*)P▼-(**)	0.8750	0.969		0.906
15	2*D-15-(*)P▼-(**)	1.0000	1.094		1.031
17	2*D-17-(*)P▼-(**)	1.1875	1.218		1.156
19	2*D-19-(*)P▼-(**)	1.2500	1.312		1.25
21	2*D-21-(*)P▼-(**)	1.3750	1.438	0.232	1.375
23	2*D-23-(*)P▼-(**)	1.5000	1.563		1.500
25	2*D-25-(*)P▼-(**)	1.6250	1.688		1.625

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

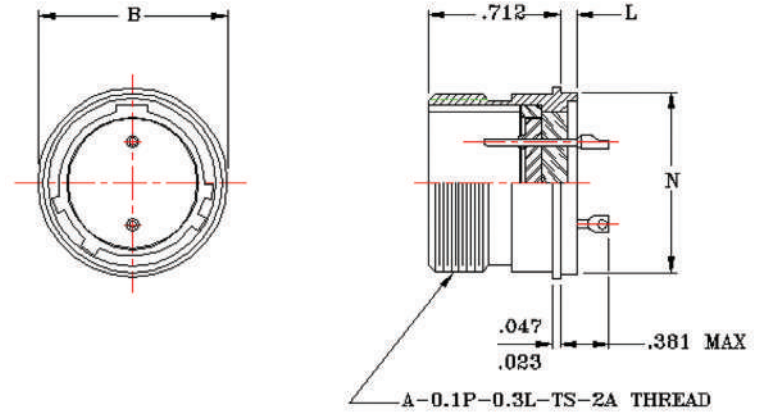
BOX MOUNT 31D RECEPTACLES (REF. D38999/21)



SHELL SIZE	PART NUMBER	A THREAD	R1 +.005 -.005	R2 +.005 -.005	S +.011 -.011	T +.008 -.008	TT +.008 -.008
9	3*D-9-(*)P▼-(**)	0.6250	0.719	0.594	0.937	0.128	0.216
11	3*D-11-(*)P▼-(**)	0.7500	0.812	0.719	1.031		0.194
13	3*D-13-(*)P▼-(**)	0.8750	0.906	0.812	1.126		0.194
15	3*D-15-(*)P▼-(**)	1.0000	0.969	0.906	1.220		0.173
17	3*D-17-(*)P▼-(**)	1.1875	1.062	0.969	1.311		0.194
19	3*D-19-(*)P▼-(**)	1.2500	1.156	1.062	1.437		0.194
21	3*D-21-(*)P▼-(**)	1.3750	1.250	1.156	1.563	0.154	0.194
23	3*D-23-(*)P▼-(**)	1.5000	1.375	1.250	1.689		0.242
25	3*D-25-(*)P▼-(**)	1.6250	1.500	1.375	1.811		0.242

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

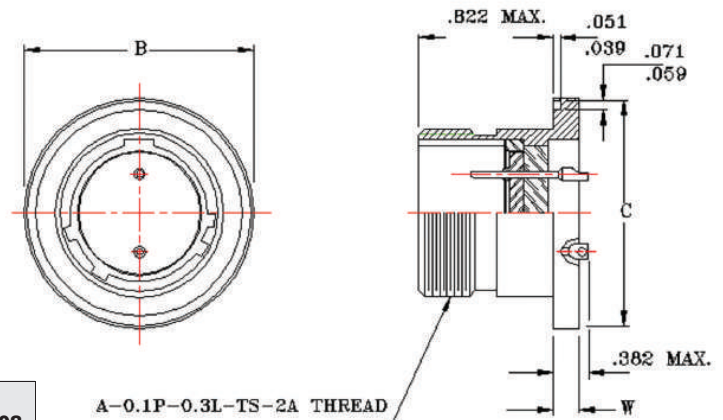
JAM NUT MOUNT 51D RECEPTACLES (REF. D38999/23)



SHELL SIZE	PART NUMBER	A THREAD	E +.012 -.000	F +.012 -.004	H +.010 -.010	L +.015 -.015	M +.015 -.015	V THREAD	W +.000 -.010	Z MAX
9	5*D-9-(*)P▼-(**)	0.6250	0.642	0.102	0.875	1.125	1.063	M17	0.655	0.208
11	5*D-11-(*)P▼-(**)	0.7500	0.764		1.000	1.125	1.252	M20	0.755	0.208
13	5*D-13-(*)P▼-(**)	0.8750	0.894		1.250	1.133	1.374	M25	0.942	0.200
15	5*D-15-(*)P▼-(**)	1.0000	1.020		1.312	1.133	1.500	M28	1.066	0.200
17	5*D-17-(*)P▼-(**)	1.1875	1.142		1.437	1.133	1.626	M32	1.191	0.200
19	5*D-19-(*)P▼-(**)	1.2500	1.268		1.562	1.165	1.811	M35	1.316	0.200
21	5*D-21-(*)P▼-(**)	1.3750	1.394	0.134	1.750	1.165	1.937	M38	1.441	0.200
23	5*D-23-(*)P▼-(**)	1.5000	1.520		1.875	1.165	2.063	M41	1.566	0.200
25	5*D-25-(*)P▼-(**)	1.6250	1.642		2.000	1.165	2.189	M44	1.691	0.200

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

WELD MOUNT 61D RECEPTACLES (REF. D38999/27)



SHELL SIZE	PART NUMBER	A THREAD	B +.011 -.000	C +.000 -.011	W +.008 -.008
9	6*D-9-(*)P▼-(**)	0.6250	0.972	0.941	0.126
11	6*D-11-(*)P▼-(**)	0.7500	1.094	1.063	
13	6*D-13-(*)P▼-(**)	0.8750	1.220	1.189	
15	6*D-15-(*)P▼-(**)	1.0000	1.346	1.315	
17	6*D-17-(*)P▼-(**)	1.1875	1.433	1.401	
19	6*D-19-(*)P▼-(**)	1.2500	1.578	1.547	
21	6*D-21-(*)P▼-(**)	1.3750	1.720	1.689	0.157
23	6*D-23-(*)P▼-(**)	1.5000	1.885	1.854	
25	3*D-25-(*)P▼-(**)	1.6250	1.972	1.941	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

J & K SERIES

MIL-DTL-83723 hermetic connectors were developed for applications where a controlled atmosphere such as inert gasses, partial vacuums, or constant environments are needed. These receptacles are designed for use in aerospace, electronic, electrical power, and control circuits.

The “J” & “K” Series receptacles are manufactured to BoldX Industries standards and meet the intermateability requirements of MIL-DTL-83723 Series III types B and T respectively. They are hermetically sealed with a single compression glass seal around all contacts to prevent air leakage in excess of 1x10⁻⁷ cc/sec of helium at one atmosphere.

The “J” series receptacles have a bayonet coupling mechanism and the “K” series have the threaded coupling type. Standard hermetic receptacles are supplied with either solder cup or eyelet type contact terminations. Contacts for other applications such as thermocouple or flex prints are also available. Standard receptacles are tin plated steel shells or passivated stainless steel shells with gold plated nickel-iron alloy contacts. Other materials and finishes can be supplied to meet specific application requirements. Both series are supplied with interfacial seals and O-rings.

ELECTRICAL SERVICE DATA

The maximum current to be carried by the connector, based on contact size, is the same as permitted by the wire bundle. Maximum current ratings and corresponding voltage drops under test condition, fully assembled, are shown below.

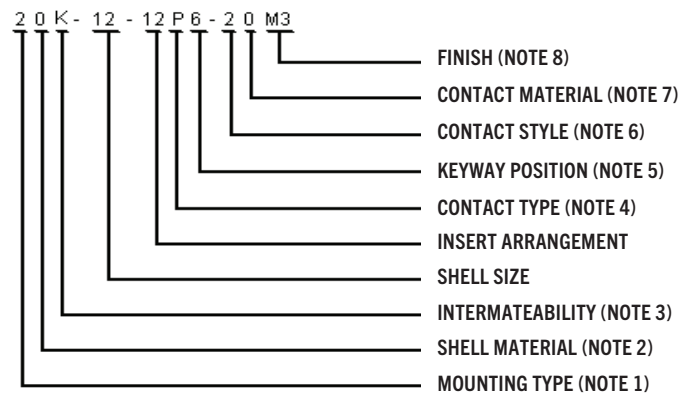
CONTACT SIZE	TEST CURRENT (AMPS)	POTENTIAL DROP (MILLIVOLTS)
20	5	100
16	10	95
12	17	95

HIGH-POTENTIAL TEST VOLTAGE

Unmated connectors tested per method 3001 of MIL-STD-1344 shall have a maximum leakage of 2 milliamperes and show no evidence of electrical breakdown or flashover.

SERVICE RATING	TEST VOLTAGE (RMS 60 CPS)
I	1500

PART NUMBER EXPLANATION



STANDARD MATERIALS AND FINISHES

FERROUS ALLOY SHELLS

Material: Cold Rolled Steel per ASTM A108

Finish: 100 microinches minimum fused tin per ASTM B545 over a suitable underplate

STAINLESS STEEL SHELLS

Material: Corrosion-resistant steel per SS304L per SAE AMS-QQ-S-763, type 303 or as specified

Finish: Passivated

CONTACTS

Material: Nickel-iron alloy per MIL-I-23011, class 2

Finish: 50 microinches minimum gold per MIL-DTL-45204 over a suitable underplate

BAYONET PINS

Material: Corrosion-resistant steel per SAE AMS- type 303

INSERTS INTERFACIAL SEALS

Material: Glass **Material:** Fluorosilicone rubber

BAYONET COUPLING		
DESCRIPTION	MILITARY DESIGNATION	BOLDX DESIGNATION
BOX MOUNT	M83723/79H**N	30J-*.*PN-20
	M83723/79Y**N	3*J-*.*PN-20
SOLDER MOUNT	M83723/80H**N	20J-*.*PN-20
	M83723/80Y**N	2*J-*.*PN-20
	M83723/93H**N	20J-*.*PN-40
	M83723/93Y**N	2*J-*.*PN-40
JAM NUT MOUNT	M83723/81H**N	50J-*.*PN-20
	M83723/81Y**N	5*J-*.*PN-20
	M83723/94H**N	50J-*.*PN-80
	M83723/94Y**N	5*J-*.*PN-80
MATING PLUG	M83723/75 - M83723/77	
THREAD COUPLING		
BOX MOUNT	M83723/88H**N	30K-*.*PN-20
	M83723/88Y**N	3*K-*.*PN-20
JAM NUT MOUNT	M83723/89H**N	50K-*.*PN-20
	M83723/89Y**N	5*K-*.*PN-20
SOLDER MOUNT	M83723/90H**N	20K-*.*PN-20
	M83723/90Y**N	2*K-*.*PN-20
MATING PLUG	M83723/86, M83723/91, M83723/95, M83723/97	

NOTES:

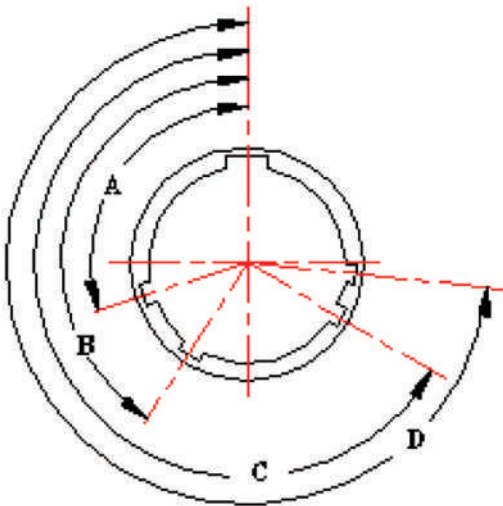
1. -- 2--Circular flange solder mount
3--Square flange box mount
5--Jam nut mount
2. -- 0 FERROUS ALLOY PER ASTM A108
1 CRES PER SAE AMS-QQ-S-764, TYPE 303
2 CRES PER SAE AMS-QQ-S-763, TYPE 304
3 CRES PER SAE AMS-QQ-S-763, TYPE 304L
4 CRES PER SAE AMS-QQ-S-763, TYPE 316
5 CRES PER SAE AMS-QQ-S-763, TYPE 316L
6 CRES PER SAE AMS-QQ-S-763, TYPE 321
7 CRES PER SAE AMS-QQ-S-763, TYPE 347
3. -- J--MIL-DTL-83723, series III
type B intermateability
K-- MIL-DTL-83723, series III
type T intermateability
4. -- P---Pin
5. -- Alternate keyway position
6. -- 1--Eyelet
2--Solder cup
7. -- 0--Nickel-iron alloy
8. -- M2-- Gold contacts with shell passivated
M3-- Fused tin contacts over nickel with gold on contacts

INDEX OF INSERT ARRANGEMENTS MIL-STD-1554

SHELL SIZE	INSERT ARRANGEMENT	TOTAL CONTACTS	CONTACT SIZE			
			20	16	12	COAX
8	2	2	2			
	3	3	3			
	98	3	3			
10	2	2	2			
	5	5	5			
	6	6	6			
	20	2		2		
12	3	3		3		
	12	12	12			
14	4	4			4	
	7	7		7		
	15	15	15			
16	10	10		10		
	24	24	24			
18	14	14		14		
	31	31	31			
20	16	16		16		
	41	41	41			
22	19	19		19		
	55	55	55			
24	61	61	61			

ALL ARRANGEMENTS ARE SERVICE RATING I

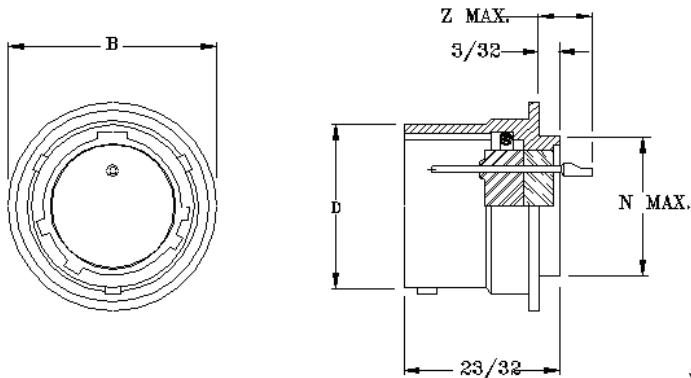
MASTER KEYWAY POSITIONS
FRONT FACE OF PIN INSERT SHOWN



SHELL SIZE	KEYWAY POSITION	A°	B°	C°	D°
8 10	NORMAL	105	140	215	265
	6	102	132	248	320
	7	80	118	230	312
	8	35	140	205	275
	9	64	155	234	304
	Y	25	115	220	270
12 THRU 24	NORMAL	105	140	215	265
	6	18	149	192	259
	7	92	152	222	342
	8	84	152	204	334
	9	24	135	199	240
	Y	98	152	268	338

Y POSITION NOT AVAILABLE FOR SHELL SIZE 8

SOLDER MOUNT 20J RECEPTACLES (REF. M83723/80)

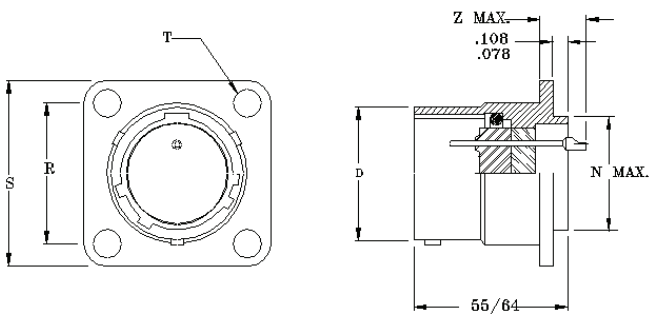


CONTACT SIZE	Y MAX
20	0.330
16	0.400
12	0.400

SHELL SIZE	PART NUMBER	B +.020 -.020	D +.000 -.005	N MAX
8	20J-8-(*)P▼-(**)	0.740	0.536	0.500
10	20J-10-(*)P▼-(**)	0.840	0.659	0.562
12	20J-12-(*)P▼-(**)	1.045	0.829	0.750
14	20J-14-(*)P▼-(**)	1.090	0.898	0.812
16	20J-16-(*)P▼-(**)	1.210	1.025	0.937
18	20J-18-(*)P▼-(**)	1.340	1.131	1.062
20	20J-20-(*)P▼-(**)	1.430	1.256	1.187
22	20J-22-(*)P▼-(**)	1.590	1.381	1.312
24	20J-24-(*)P▼-(**)	1.710	1.506	1.437

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

BOX MOUNT 30J RECEPTACLES (REF. M83723/79)

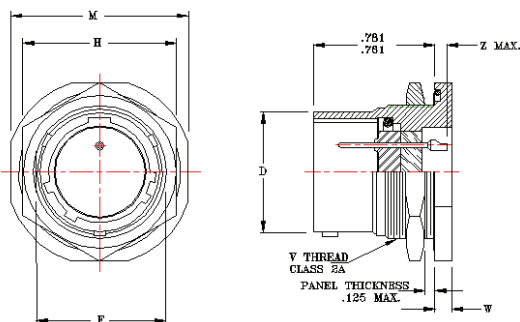


CONTACT SIZE	Z MAX
20	0.330
16	0.400
12	0.400

SHELL SIZE	PART NUMBER	D +.000 -.005	N MAX	R +.005 -.005	S +.005 -.005	T +.000 -.009
8	30J-8-(*)P▼-(**)	0.536	0.500	0.594	0.812	0.125
10	30J-10-(*)P▼-(**)	0.659	0.562	0.719	0.937	
12	30J-12-(*)P▼-(**)	0.829	0.750	0.812	1.031	
14	30J-14-(*)P▼-(**)	0.898	0.812	0.906	1.125	
16	30J-16-(*)P▼-(**)	1.025	0.937	0.969	1.250	
18	30J-18-(*)P▼-(**)	1.131	1.062	1.062	1.343	
20	30J-20-(*)P▼-(**)	1.256	1.187	1.156	1.437	
22	30J-22-(*)P▼-(**)	1.381	1.312	1.250	1.562	
24	30J-24-(*)P▼-(**)	1.506	1.437	1.375	1.703	0.154

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

JAM NUT MOUNT 50J RECEPTACLES (REF. M83723/81)



CONTACT SIZE	Z MAX
2	0.165
16	0.235
12	0.235

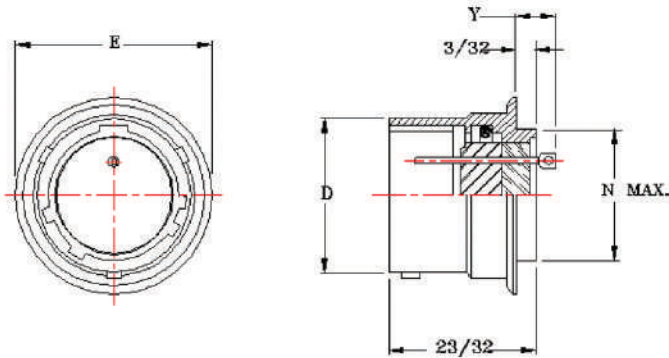
SHELL SIZE	PART NUMBER	D +.000 -.005	F +.003 -.003	H +.017 -.017	M +.005 -.005	V THREAD CLASS 2 A	W +.020 -.020
8	50J-8-(*)P▼-(**)	0.536	0.593	0.812	0.979	0.6250-20 UN	0.117
10	50J-10-(*)P▼-(**)	0.659	0.718	0.937	1.104	0.7500-20 UNEF	
12	50J-12-(*)P▼-(**)	0.829	0.905	1.123	1.291	0.9375-20 UNEF	
14	50J-14-(*)P▼-(**)	0.898	0.968	1.188	1.391	1.0000-20 UNEF	
16	50J-16-(*)P▼-(**)	1.025	1.093	1.312	1.516	1.1250-20 UN	
18	50J-18-(*)P▼-(**)	1.131	1.217	1.438	1.641	1.2500-20 UN	
20	50J-20-(*)P▼-(**)	1.256	1.342	1.562	1.766	1.3750-18 UNEF	0.148
22	50J-22-(*)P▼-(**)	1.381	1.467	1.688	1.954	1.5000-20 UN	
24	50J-24-(*)P▼-(**)	1.506	1.592	1.812	2.079	1.6250-18 UNEF	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

MIL-DTL-83723 (SERIES III)



SOLDER MOUNT 20K RECEPTACLES (REF. M83723/90))

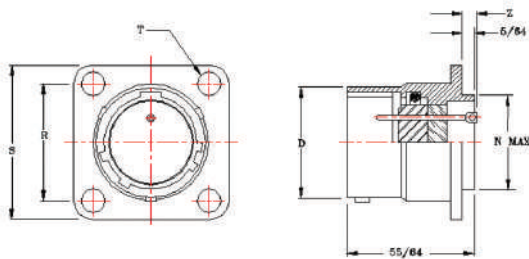


CONTACT SIZE	Z+/- .30
20	0.164
16	0.194
12	0.194

SHELL SIZE	PART NUMBER	A THREAD UNEF 2A	B +.010 -.010	N +.000 -.006
8	20K-8-(*)P▼-(**)	0.5625-24	0.713	0.500
10	20K-10-(*)P▼-(**)	0.6875-24	0.840	0.562
12	20K-12-(*)P▼-(**)	0.8750-20	1.045	0.750
14	20K-14-(*)P▼-(**)	0.9375-20	1.090	0.812
16	20K-16-(*)P▼-(**)	1.0625-18	1.210	0.937
18	20K-18-(*)P▼-(**)	1.1875-18	1.340	1.062
20	20K-20-(*)P▼-(**)	1.3125-15	1.475	1.187
22	20K-22-(*)P▼-(**)	1.4375-18	1.590	1.312
24	20K-24-(*)P▼-(**)	1.5625-18	1.725	1.437

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

BOX MOUNT 30K RECEPTACLES (REF. M83723/88)

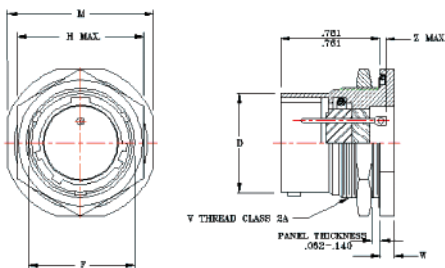


CONTACT SIZE	Z+/- .30
20	0.164
16	0.194
12	0.194

SHELL SIZE	PART NUMBER	A THREAD UNEF 2A	N +.000 -.006	R +.005 -.005	S +.005 -.005	T +.000 -.009
8	30K-8-(*)P▼-(**)	0.5625-24	0.500	0.594	0.812	0.125
10	30K-10-(*)P▼-(**)	0.6875-24	0.562	0.719	0.937	
12	30K-12-(*)P▼-(**)	0.8750-20	0.750	0.812	1.031	
14	30K-14-(*)P▼-(**)	0.9375-20	0.812	0.906	1.125	
16	30K-16-(*)P▼-(**)	1.0625-18	0.937	0.969	1.25	
18	30K-18-(*)P▼-(**)	1.1875-18	1.062	1.062	1.343	
20	30K-20-(*)P▼-(**)	1.3125-15	1.187	1.156	1.437	
22	30K-22-(*)P▼-(**)	1.4375-18	1.312	1.250	1.562	
24	30K-24-(*)P▼-(**)	1.5625-18	1.437	1.375	1.703	0.154

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

JAM NUT MOUNT 50K RECEPTACLES (REF. M83723/89)



CONTACT SIZE	Z+/- .30	
	SHELL SIZE	
	8-20	22 & 24
20	0.150	0.139
16	0.180	0.169
12	0.180	0.169

SHELL SIZE	PART NUMBER	A THREAD UNEF 2A	F +.0003 -.0003	H +.017 -.017	L MAX REF	M +.015 -.015	V THREAD CLASS 2 A
8	50K-8-(*)P▼-(**)	0.5625-24	0.593	0.812	0.918	0.964	0.6250-20 UN
10	50K-10-(*)P▼-(**)	0.6875-24	0.718	0.937		1.088	0.7500-20 UNEF
12	50K-12-(*)P▼-(**)	0.8750-20	0.905	1.125		1.275	0.9375-20 UNEF
14	50K-14-(*)P▼-(**)	0.9375-20	0.968	1.187		1.375	1.0000-20 UNEF
16	50K-16-(*)P▼-(**)	1.0625-18	1.093	1.312		1.500	1.1250-18 UNEF
18	50K-18-(*)P▼-(**)	1.1875-18	1.217	1.437	0.929	1.625	1.2500-18 UNEF
20	50K-20-(*)P▼-(**)	1.3125-15	1.342	1.562		1.750	1.3750-18 UNEF
22	50K-22-(*)P▼-(**)	1.4375-18	1.467	1.687		1.938	1.5000-18 UNEF
24	50K-24-(*)P▼-(**)	1.5625-18	1.592	1.812		2.063	1.6250-18 UNEF

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT
INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

R & S SERIES

MIL-DTL-26482 hermetic connectors were developed for applications where a controlled atmosphere such as inert gasses, partial vacuums, or constant environments are needed. These receptacles are designed for use in aerospace, electronic, electrical power, and control circuits.

The “R” & “S” Series receptacles are manufactured to BoldX Industries standards and meet the intermateability requirements of MIL-DTL-26482 Series 1 and Series 2 respectively. They are hermetically sealed with a single compression glass seal around all contacts to prevent air leakage in excess of 1x10⁻⁶ cc/sec of helium at one atmosphere.

Standard hermetic receptacles are supplied with either solder cup or eyelet type contact terminations. Contacts for other applications such as thermocouple or flex prints are also available. Standard “R” series receptacles are tin plated steel shells with gold plated nickel-iron alloy. Standard “S” series receptacles are tin plated steel shells with gold plated nickel-iron alloy contacts. Other materials and finishes can be supplied to meet specific application requirements. Series 1 and 2 are supplied with interfacial gaskets and peripheral seals. Series 2 are supplied with raised seal barriers around each contact. Series 1 can be supplied with O-rings.

ELECTRICAL SERVICE DATA

The maximum current to be carried by the connector, based on contact size, is the same as permitted by the wire bundle. Maximum current ratings and corresponding voltage drops under test condition, fully assembled, are shown below.

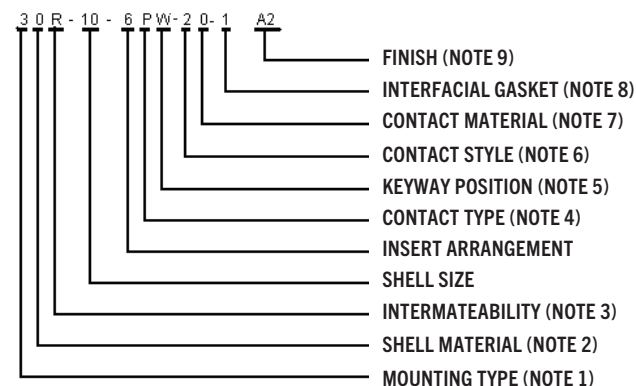
CONTACT SIZE	TEST CURRENT (AMPS)	POTENTIAL DROP (MILLIVOLTS)
20	5	100
16	10	95
12	17	95

HIGH-POTENTIAL TEST VOLTAGE

Unmated connectors tested per method 3001 of MIL-STD-1344 shall have a maximum leakage of 2 milliamperes and show no evidence of electrical breakdown or flashover.

SERVICE RATING	TEST VOLTAGE (RMS 60 CPS)
I	1500
II	2300

PART NUMBER EXPLANATION



STANDARD MATERIALS AND FINISHES

FERROUS ALLOY SHELLS

Material: Cold Rolled Steel per ASTM A108

Finish: R receptacles (series 1) fused tin over copper.

S receptacles (series 2)

100 microinches minimum fused tin per ASTM B545 over copper per AMS 2418 over nickel per AMS-QQ-N-290

STAINLESS STEEL SHELLS

Material: Corrosion-resistant steel per SS304L per SAE AMS-QQ-S-763, type 303 or as specified

Finish: Passivated

CONTACTS

Material: Nickel-iron alloy per MIL-I-23011, class 2

Finish: R receptacles (series 1)

50 microinches minimum gold per ASTM

B488 over nickel per AMS-QQ-N-290

S receptacles (series 2)

50 microinches minimum gold per ASTM B488 over nickel per AMS-QQ-N-290

BAYONET PINS

Material: Corrosion-resistant steel per SAE AMS- type 303

INSERTS

Material: Glass

INTERFACIAL SEALS

Material: Fluorosilicone rubber

SERIES 1		
DESCRIPTION	MILITARY DESIGNATION	BOLDX DESIGNATION
SOLDER MOUNT	MS3113H*A*P	2*R-*P-20
	MS3113H*B*P	2*R-*P-10
	MS3113H*C*P	20R-*P-20
	MS3113H*Y*P	20R-*P-10
JAM NUT MOUNT	MS3114H*A*P	5*R-*P-20
	MS3114H*B*P	5*R-*P-10
	MS3114H*C*P	50R-*P-20
	MS3114H*Y*P	50R-*P-10
BOX MOUNT	CLASS H NOT SPECIFIED	30R-*P-20 30R-*P-10
MATING PLUG	MS3116	
SERIES 2		
BOX MOUNT	MS3440H*C*PN	30S-*PN-20
SOLDER MOUNT	MS3443H*C*PN	20S-*PN-20
JAM NUT MOUNT	MS3449H*C*PN	50S-*PN-20
MATING PLUG	MS3476	

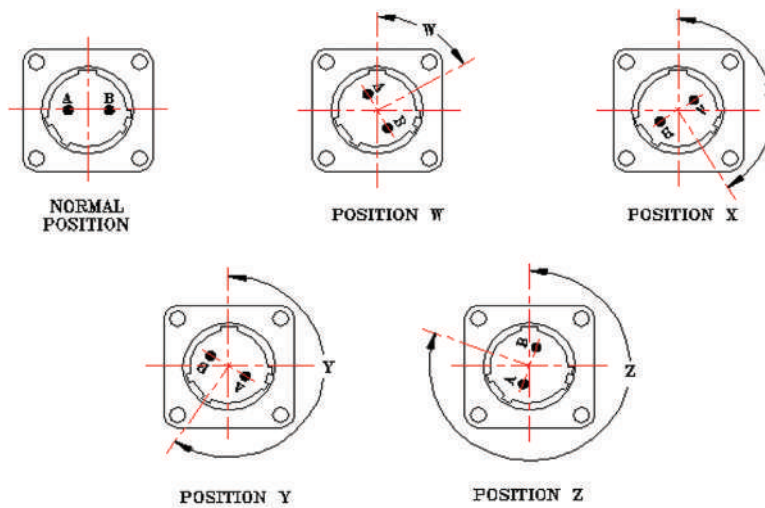
NOTES:

- 2-- Circular flange solder mount
3-- Square flange box mount
5-- Jam nut mount
- 0 FERROUS ALLOY PER ASTM A108
1 CRES PER SAE AMS-QQ-S-764, TYPE 303
2 CRES PER SAE AMS-QQ-S-763, TYPE 304
3 CRES PER SAE AMS-QQ-S-763, TYPE 304L
4 CRES PER SAE AMS-QQ-S-763, TYPE 316
5 CRES PER SAE AMS-QQ-S-763, TYPE 316L
6 CRES PER SAE AMS-QQ-S-763, TYPE 321
7 CRES PER SAE AMS-QQ-S-763, TYPE 347
- R-- MIL-DTL-26482, series I intermateability
S-- MIL-DTL-26482, series II intermateability
- P-- Pin
- Insert position indicator
- 1-- Eyelet
2-- Solder cup
- 0-- Nickel-iron alloy
- Blank -- Fluorosilicone gaskets
1- Silicone O-ring series I only
- R series:
M3- Fused tin over copper over nickel with gold on contacts
M2- Gold contacts with shell passivated
S series:
M3- Fused tin over copper over nickel with gold on contacts
M2- Gold contacts with shell passivated

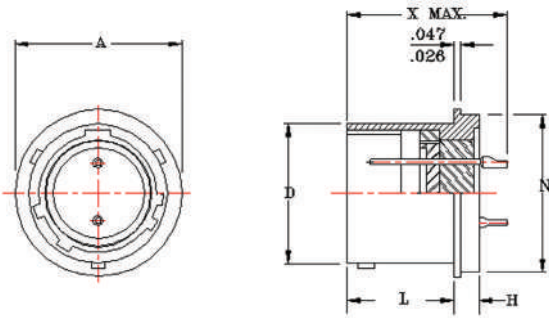
INDEX OF INSERT ARRANGEMENTS MIL-STD-1669

SHELL SIZE	INSERT ARRANGEMENT	TOTAL CONTACTS	CONTACT SIZE				SERVICE RATING	ALTERNATE INSERT POSITIONS (DEGREES)			
			20	16	12	8		W	X	Y	Z
8	2	2	2				I	58	122	-	-
	3	3	3				I	60	210	-	-
	4	4	4				I	45	-	-	-
	33	3	3				I	90	-	-	-
	98	3	3				I	-	-	-	-
10	6	6	6				I	90	-	-	-
	98	6	6				I	90	180	240	270
12	3	3		3			II	-	-	180	-
	8	8	8				I	90	112	203	292
	10	10	10				I	60	155	270	295
14	4	4			4		I	45	-	-	-
	5	5		5			II	40	92	184	273
	12	12	8	4			I	43	90	-	-
	15	15	14	1			I	17	110	155	234
	18	18	18				I	15	90	180	270
	19	19	19				I	30	165	315	-
16	8	8		8			II	54	152	180	331
	26	26	26				I	60	-	275	338
18	8	8			8		I	180	-	-	-
	11	11		11			II	62	119	241	340
	32	32	32				I	85	138	222	265
20	16	16		16			II	238	318	333	347
	41	41	41				I	45	126	225	-
22	21	21		21			II	16	135	175	349
	55	55	55				I	30	142	226	314
24	61	61	61				I	90	180	270	324

MASTER KEYWAY POSITIONS FRONT FACE OF PIN INSERT SHOWN



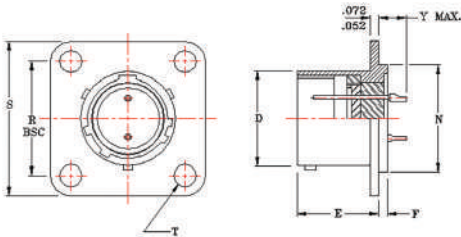
SOLDER MOUNT 20R RECEPTACLES (REF. MS3113)



SHELL SIZE	PART NUMBER	A +.015 -.015	D +.001 -.005	H +.010 -.010	L +.031 -.000	N +.001 -.005	X MAX
8	20R-8-(*)P▼-(**)	0.625	0.473	0.094	0.411	0.562	0.828
10	20R-10-(*)P▼-(**)	0.750	0.590			0.672	
12	20R-12-(*)P▼-(**)	0.844	0.750			0.781	
14	20R-14-(*)P▼-(**)	0.968	0.875			0.906	
16	20R-16-(*)P▼-(**)	1.094	1.000			1.031	
18	20R-18-(*)P▼-(**)	1.218	1.125			1.156	
20	20R-20-(*)P▼-(**)	1.312	1.250	0.125	0.473	1.250	0.891
22	20R-22-(*)P▼-(**)	1.438	1.375		0.506	1.375	0.921
24	20R-24-(*)P▼-(**)	1.563	1.500			1.500	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

BOX MOUNT 30R RECEPTACLES (REF. MS3112)

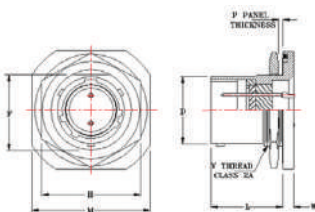


CONTACT SIZE	Y MAX	
	EYELET	SOLDER POT
20	0.231	0.278
16	0.293	0.340
12	0.293	0.340

SHELL SIZE	PART NUMBER	D +.001 -.005	E +.010 -.010	F +.010 -.010	N +.001 -.005	R BSC	S +.010 -.010	T +.005 -.005
8	30R-8-(*)P▼-(**)	0.473	0.500	0.047	0.562	0.594	0.812	0.120
10	30R-10-(*)P▼-(**)	0.590			0.672	0.719	0.938	
12	30R-12-(*)P▼-(**)	0.750			0.781	0.812	1.031	
14	30R-14-(*)P▼-(**)	0.875			0.906	0.906	1.125	
16	30R-16-(*)P▼-(**)	1.000			1.031	0.969	1.219	
18	30R-18-(*)P▼-(**)	1.125			1.156	1.062	1.312	
20	30R-20-(*)P▼-(**)	1.250	0.562	0.078	1.250	1.156	1.438	0.147
22	30R-22-(*)P▼-(**)	1.375			1.375	1.250	1.562	
24	30R-24-(*)P▼-(**)	1.500			1.500	1.375	1.688	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

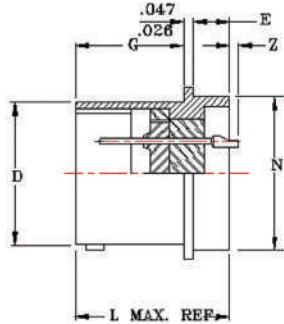
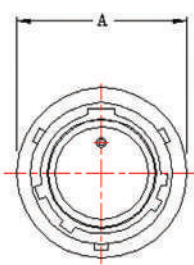
JAM NUT MOUNT 50R RECEPTACLES (REF. MS3114)



SHELL SIZE	PART NUMBER	D +.001 -.005	F +.000 -.010	H +.016 -.016	L +.031 -.000	M +.010 -.010	P		W +.015 -.015	V THREAD UNE2 2A
							MIN	MAX		
8	50R-8-(*)P▼-(**)	0.472	0.530	0.750	0.691	0.938	0.062	0.125	0.117	0.5625-24
10	50R-10-(*)P▼-(**)	0.590	0.655	0.875		1.062				0.6875-24
12	50R-12-(*)P▼-(**)	0.750	0.818	1.062		1.250				0.8750-20
14	50R-14-(*)P▼-(**)	0.875	0.942	1.188		1.375				1.000-20
16	50R-16-(*)P▼-(**)	1.000	1.066	1.312		1.500				1.1250-18
18	50R-18-(*)P▼-(**)	1.125	1.191	1.438		1.625				1.2500-18
20	50R-20-(*)P▼-(**)	1.250	1.316	1.562	0.879	1.812	0.250	0.148		1.3750-18
22	50R-22-(*)P▼-(**)	1.375	1.441	1.688		1.938				1.5000-18
24	50R-24-(*)P▼-(**)	1.500	1.566	1.812		2.062				1.6250-18

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

SOLDER MOUNT 20S RECEPTACLES (REF MS3443)

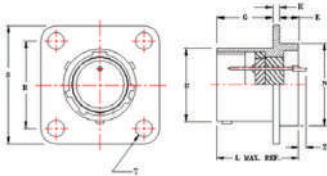


CONTACT SIZE	Z+/- .30	
	SHELL SIZE	
	8-20	22 & 24
20	0.148	0.116
16	0.218	0.186
12	0.218	0.186

SHELL SIZE	PART NUMBER	A +.010 -.010	D +.001 -.005	E +.020 -.020	G +.010 -.010	L MAX REF	N +.001 -.005
8	20S-8-(*)P▼-(**)	0.625	0.473	0.136	0.588	0.801	0.562
10	20S-10-(*)P▼-(**)	0.750	0.590				0.672
12	20S-12-(*)P▼-(**)	0.844	0.750				0.781
14	20S-14-(*)P▼-(**)	0.969	0.875				0.906
16	20S-16-(*)P▼-(**)	1.094	1.000				1.031
18	20S-18-(*)P▼-(**)	1.218	1.125				1.156
20	20S-20-(*)P▼-(**)	1.312	1.250	0.168	0.650	0.863	1.250
22	20S-22-(*)P▼-(**)	1.438	1.375				1.375
24	20S-24-(*)P▼-(**)	1.564	1.500				1.500

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

BOX MOUNT 30S RECEPTACLES (REF MS3440)

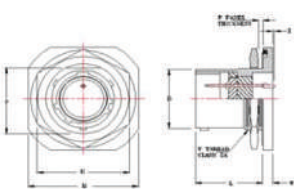


CONTACT SIZE	Z+/- .30	
	SHELL SIZE	
	8-20	22 & 24
20	0.148	0.116
16	0.218	0.186
12	0.218	0.186

SHELL SIZE	PART NUMBER	D +.001 -.005	E +.010 -.010	G +.010 -.010	H +.016 -.016	L MAX REF	N +.001 -.005	R +.005 -.005	S +.015 -.015	T +.005 -.005
8	30S-8-(*)P▼-(**)	0.473	0.115	0.588	0.062	0.801	0.562	0.594	0.812	0.120
10	30S-10-(*)P▼-(**)	0.590					0.672	0.719	0.937	
12	30S-12-(*)P▼-(**)	0.750					0.781	0.812	1.031	
14	30S-14-(*)P▼-(**)	0.875					0.906	0.906	1.125	
16	30S-16-(*)P▼-(**)	1.000					1.031	0.968	1.218	
18	30S-18-(*)P▼-(**)	1.125					1.156	1.062	1.312	
20	30S-20-(*)P▼-(**)	1.250	0.083	0.650	0.094	0.863	1.250	1.156	1.437	0.147
22	30S-22-(*)P▼-(**)	1.375	0.115			0.895	1.375	1.250	1.562	
24	30S-24-(*)P▼-(**)	1.500					1.500	1.375	1.687	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

JAM NUT MOUNT 50S RECEPTACLES (REF MS3449)



CONTACT SIZE	Z+/- .30		
	SHELL SIZE		
	8-18	20-22	24
20	0.104	0.069	0.039
16	0.174	0.139	0.109
12	0.174	0.139	0.109

SHELL SIZE	PART NUMBER	D +.001 -.005	F +.005 -.005	H +.015 -.015	L +.008 -.008	M +.015 -.015	P		V THREAD UNEQ 2A	W +.008 -.008
							MIN	MAX		
8	50S-8-(*)P▼-(**)	0.473	0.525	0.750	0.699	0.938	0.062	0.187	0.5625-24	0.105
10	50S-10-(*)P▼-(**)	0.590	0.650	0.875		1.062			0.6875-24	
12	50S-12-(*)P▼-(**)	0.750	0.813	1.062		1.250			0.8750-20	
14	50S-14-(*)P▼-(**)	0.875	0.937	1.188		1.375			1.0000-20	
16	50S-16-(*)P▼-(**)	1.000	1.061	1.312		1.500			1.1250-18	
18	50S-18-(*)P▼-(**)	1.125	1.186	1.438		1.625			1.2500-18	
20	50S-20-(*)P▼-(**)	1.250	1.311	1.562	0.764	1.812	0.250	0.250	1.3750-18	0.138
22	50S-22-(*)P▼-(**)	1.375	1.436	1.688		1.938			1.5000-18	
24	50S-24-(*)P▼-(**)	1.500	1.561	1.812		2.062			1.6250-18	

▼ REPLACE WITH ALTERNATE INSERT POSITION INDICATOR / (*) REPLACE WITH PIN ARRANGEMENT INDICATOR NOT REQUIRED FOR NORMAL POSITION / (**) REPLACE WITH CONTACT STYLE AND MATERIAL

HERMETIC CONNECTOR PRODUCT GUIDE AND CROSS REFERENCE

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-5015	A Series	COMMERCIAL	2-5

MILITARY PART NUMBER	BOLDX	AMPHENOL AEROSPACE	CONNECTOR INDUSTRIES	DETORONICS	ELECTRONIC SEALS	GLASSEAL	HERMETIC SEAL CORP.	ITT CANNON	SEALTRON
MS3142HS*C*	3*A-.*P-20	-	A31*.-20	-	S31H*-214	-	SSR2102*.	-	A6003*.-SP
MS3142HS*Y*	3*A-.*P-10	172-3*3*	A31*.-10	-	S31H*-204	-	SSR2101*.	-	A6003*.-FP
MS3142HT*C*	30A*.-P-20	172-3*2*	A30*.-20	DS02H*112	31H*-0114	GSP2*SF2	SR2102*.	GS02*.-112	6003*.-SP
MS3142HT*Y*	30A*.-P-10	-	A30*.-10	DS02H*111	31H*-0014	GSP2*SF1	SR2101*.	GS02*.-111	6003*.-FP
MS3143HS*C*	2*A-.*P20	-	A21*.-20	-	S33H*-214	-	SSR2152*.	-	A6002*.-SP
MS3143HS*Y*	2*A-.*P10	172-2*3*	A21*.-10	-	S334*.-204	-	SSR2151*.	-	A6002*.-FP
MS3143HT*C*	20A*.-P20	172-2*2*	A20*.-20	DS02H*252	33H*-0114	GSP2*RF2	SR2052*.	GS02*.-252	6002*.-SP
MS3143HT*Y*	20A*.-P10	-	A20*.-10	DS02H*251	33H*-0014	GSP2*RF1	SR2051*.	GS02*.-251	6002*.-FP

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-38999 SERIES I	B SERIES	QUALIFIED	6-9

MILITARY PART NUMBER	BOLDX	AMPHENOL/ BENDIX	AMPHENOL/ MATRIX	DEUTSCH	GLASSEAL	HERMETIC SEAL	HI-REL	ITT CANNON	SEALTRON
MS27470Y*D*P	50B*.-*P-20	LJT07Y*	MB914Y*D*	DJT14H*	9705H*D*	S922002*	74000Y*.-D*	KJL7Y*D*	A9705*134
MS27470Y*D*X	50B*.-*P-10	LJT07Y*	MB914Y*D*	DJT14H*	9705H*D*	S922002*	74000Y*.-D*	KJL7Y*D*	A9705*134
MS27470Y*E*P	5*B*.-*P-20	LJTS07Y*	MB914Y*E*	-	9705H*E*	SS922002*	74000Y*E*	KJ7LY*E*	A9705*136
MS27470Y*E*X	5*B*.-*P-10	LJTS07Y*	MB914Y*E*	-	9705H*E*	SS922002*	74000Y*E*	KJL7Y*E*	A9705*136
MS27471Y*D*P	20B*.-*P-20	LJTIY*	MB915Y*D*	DJT11H*	-	S900002*	75000Y*.-D*	KJL1Y*D*	A9702*134
MS27471Y*D*X	20B*.-*P-10	LJTIY*	MB915Y*D*	DJT11H*	-	S900002*	75000Y*.-D*	KJL1Y*D*	A9702*134
MS27471Y*E*P	2*B*.-*P-20	LJTSIY*	MB915Y*E*	-	-	SS900002*	75000Y*E*	KJL1Y*E*	A9702*136
MS27471Y*E*X	2*B*.-*P-10	LJTSIY*	MB915Y*E*	-	-	SS900002*	75000Y*E*	KJL1Y*E*	A9702*136

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-38999 SERIES II	C SERIES	QUALIFIED	10-13

MILITARY PART NUMBER	BOLDX	AMPHENOL/ BENDIX	DETORONICS	GLASSEAL	HERMETIC SEAL	HI-REL	ITT CANNON	SEALTRON
MS27476Y*D	50C*.-*P*	JT02Y*	DJT02Y*	-	S91002*	5300Y*.-D*	KJ2Y*D*	M9813*134
MS27476Y*E	5*C*.-*P*	JTS02Y*	-	-	SS91002*	53000Y*.-E*	KJ2Y*E*	M9813*136
MS27477Y*D	20C*.-*P*	JT07Y*	DJT07Y*	9805H*D*	S925002*	54000Y*.-D*	KJ7Y*D*	A9805*134
MS27477Y*E	2*C*.-*P*	JTS07Y*	-	9805H*E*	SS925002*	54000Y*.-E*	KJ7Y*E*	A9805*136
MS27478Y*D	30C*.-*P*	JT1Y*	DJT1Y*	-	S900002*	52000Y*.-D*	KJ17*D*	M9802*134
MS27478Y*E	3*C*.-*P*	JTS1Y*	-	-	SS900002*	52000Y*.-E*	KJ1Y*E*	M9802*136

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-38999 SERIES III	D SERIES	QUALIFIED	14-17

MILITARY PART NUMBER	BOLDX	AMPHENOL/ BENDIX	AMPHENOL/ PYLE-NATIONAL	CONNECTOR INDUSTRIES	DEUTSCH	HERMETIC SEAL	HI-REL	ITT CANNON	SEALTRON	TEC
D38999/21Y*	3*D*.-*PN-20*.-M2	TVPS02Y*	T3Y-17H*	P31*.-0P	DTS20Y*	HR-SS-910002*	85000Y*	KJA2Y*K*	A9903*146	VTT02Y*
D38999/21N*	3*D*.-*PN-20*.-M8	TVPS02YN*	T3N-17H*	P31*.-E8	DTS20N*	HR-SSN-91002*	85000N*	KJA2Y*N*	A9903*136	-
D38999/23Y*	5*D*.-*PN-20*.-M2	TVS07Y*	T3Y-19H*	P51*.-0P	-	HR-SS-92200*	86000Y*	KJA7Y*K*	A9905*146	VTT07Y*
D38999/23N*	5*D*.-*PN-20*.-M8	TVS07YN*	T3N-19H*	P51*.-E8	-	HR-SSN-92200*	8600N*	KJA7Y*N*	A9905*136	-
D38999/25Y*	2*D*.-*PN-20*.-M2	TVSIY*	T3Y-14H*	P21*.-09	-	HR-SS-90000*	84000Y*	KJA1Y*K*	A9902*146	VTT1Y*
D38999/25N*	2*D*.-*PN-20*.-M8	YVSIYN*	T3N-14H*	P21*.-E8	-	HR*SSN-90000*	84000N*	KJA1Y*N*	A9902*136	-
D38999/27Y*	6*D*.-*PN-20*.-M2	TVSHIY*	T3Y-15H*	P63*.-0P	-	HR-SS-90540*	87000Y*	KJA5Y*K*	B9912*146	-
D38999/27N*	6*D*.-*PN-20*.-M8	TVSHIYN*	T3N-15H*	P63-E8	-	HR-SSN-90540*	87000N*	KJA5Y*N*	B9912*136	-

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-26500	G SERIES	QUALIFIED	18-20

MILITARY PART NUMBER	BOLDX	HERMETIC SEAL	AMPHENOL/ PYLE-NATIONAL
MS24265H*B*CN	50G*.-*PN-20	HR-82000*.-B*	-
MS24265H*B*EN	50G*.-*PN-10	HR-8200*.-B*	-
MS27034H*B*CN	20G*.-*PN-20	HR-80000*.-B*	ZZB-HC-14*
MS27034H*B*EN	20G*.-*PN-10	HR-80000*.-B*	ZZB-HC-14*

HERMETIC CONNECTOR PRODUCT GUIDE AND CROSS REFERENCE

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
H SERIES	MIL-DTL-26500	QUALIFIED	18-21

MILITARY PART NUMBER	BOLDX	SEALTRON	DETORONICS	GLASSEAL	HERMETIC SEAL CORP.	CONNECTOR INDUSTRIES
MS24265H*T*CN	50H-*PN-20	8505*SPM121	-	507H*T*PC*	802102*T*P	F50*20
MS24265H*T*EN	50H-*PN-10	8505*FPM121	-	507H*T*PY*	802101*T*P	F50*10
MS27034H*T*CN	20H-*PN-20	8502*SPM121	-	501H*T*PC*	800002*T*P	F20*20
MS27034H*T*EN	20H-*PN-10	8502*FPM121	DX1H*T*	501H*T*PY*	800001*T*P	F20*10

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-83723 SERIES III	J / K SERIES	QUALIFIED	22-24

MILITARY PART NUMBER	BOLDX	ANPHENOL/ PLYE-NATIONAL	CONNECTOR INDUSTRIES	DEUTSCH	HERMETIC SEAL	HI-REL	SEALTRON
M83723/79H**N	30J-*PN-20	-	M30*20	DL60H*	HR-810792*B*P	70000H-*B*	6603*SPM134
M83723/79Y**N	3*J-*PN-20	-	M31*20	-	HR-SS810792*B*P	70000Y-*B*	6603*SPM136
M83723/80H**N	20J-*PN-20	-	M20*20	DL61H*	HR-800802*B*P	69000H-*B*	6602*SPM134
M83723/80Y**N	2*J-*PN-20	-	M21*20	-	HR-SS800802*B*P	69000Y-*B*	6602*SPM136
M83723/81H**N	50J-*PN-20	-	M50*20	DL64H*	HR-820812*B*P	-	6605*SPM134
M83723/81Y**N	5*J-*PN-20	-	M51*20	-	HR-SS820812*B*P	-	6605*SPM136
M83723/88H**N	30K-*PN-20	BFH17*P1B	L30*20	DBC30H*	HR-810882*T*P	70000H-*T*	6503*SPM134
M83723/88Y**N	3*K-*PN-20	BFH17*P1D	L31*20	-	HR-22810882*T*P	70000Y-*T*	6503*SPM136
M83723/89H**N	50K-*PN-20	BFH19*P1B	L50*20	DBC34H*	HR-820892*T*P	71000H-*T*	6505*SPM134
M83723/89Y**N	5*K-*PN-20	BFH19*P1D	L51*20	-	HR-SS820892*T*P	71000Y-*T*	6505*SPM136
M83723/90H**N	20K-*PN-20	BFH148P1B	L20*20	DBC33H*	HR-805902*T*P	69000H-*T*	6502*SPM134
M83723/90Y**N	2*K-*PN-20	BFH14*P1D	L21*20	-	HR-SS805902*T*P	69000Y-*T*	6502*SPM136
M83723/93H**N	20J-*PN-40	-	M20*40	DL61H*830	HR-800934*B*P	69000H-*B*C*	6612*SPM136
M83723/93Y**N	2*J-*PN-40	-	M21*40	-	HR-SS800934*B*P	69000Y-*B*C*	6612*SPM136
M83723/94H**N	50J-*PN-80	-	M50-40	DL64H*829	HR-820945*B*P	71000H-*B*C*	6615*SPM134
M83723/94Y**N	5*J-*PN-80	-	M51*50	-	HR-AA820945*B*P	71000Y-*B*C*	6615*SPM136

MIL-SPEC	BOLDX SERIES	QPL STATUS	PAGE NUMBER
MIL-DTL-26482 SERIES 1	R SERIES	COMMERCIAL	26-28

MILITARY PART NUMBER	BOLDX	AMPHENOL/ BENDIX	CONNECTOR INDUSTRIES	DETORONICS	DEUTSCH	GLASSEAL	HERMETIC SEAL CORP.	ITT CANNON	SEALTRON
MS3113H*A*	2*R-*P-20	-	C21-**20	-	-	GB1H-*A*	HR-SS7002-*	KPT1H-*A*	8312*SP-M136
MS3113H*B*	2*R-*P-10	PTIY-*	C21-**10	-	-	GB1H-*B*	HR-SS7001-*	KPT1H-*B*	8312*FP-M136
MS3113H*C*	20R-*P-20	PTIY-*	C20-**20	DT1H-*	22628*	GB1H-*C*	HR-S7002-*	KPT1H-*C*	8312*SP-M134
MS3113H*Y*	20R-*P-10	-	C20-**10	-	22628*	GB1H-*Y*	HRS7001-*	KPT1H-*Y*	8312*FP-M134
MS3114H*A*	5*R-*P-20	-	C51-**20	-	-	GB7H-*A*	HR-SS7201-*	KPT07H-*A*	8315*SP-M136
MS3114H*B*	5*R-*P-10	PT07Y-*	C51-**10	-	-	GB7H-*B*	HR-SS7201-*	KPT07H-*B*	8315*FP-M136
MS3114H*C*	50R-*P-20	PT07Y-*	C50-**20	DT07H-*	22630*	GB7H-*C*	HR-S7202-*	KPT07H-*C*	8315*SP-M134
MS3114H*Y*	50R-*P-10	-	C50-**10	-	22630*	GB7H-*Y*	HR-S7210-*	KPT07H-*Y*	8315*FP-M134

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MILITARY PART NUMBER	BOLDX	MATRIX	CONNECTOR INDUSTRIES	DEUTSCH	FCI/SOURIAU	GLASSEAL	HERMETIC SEAL	SEALTRON
MS3440H*C*PN	30S-*PN-20	MB10*	K30-*20	DBC50H*	8526-2H*	440H*	HR-S9A-7102-*	6313*SP-M134
MS3443H*C*PN	20S-*PN-20	MB15*	K20-*20	DBC53H*	8526*1H*	443H*	HR-S11A*7002-*	6312*SP-M134
MS3449H*C*PN	50S-*PN-20	MB14*	K50-*20	DBC54H*	8526-7H*	449H*	HR-S12A-7202-*	6315*SP-M134



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