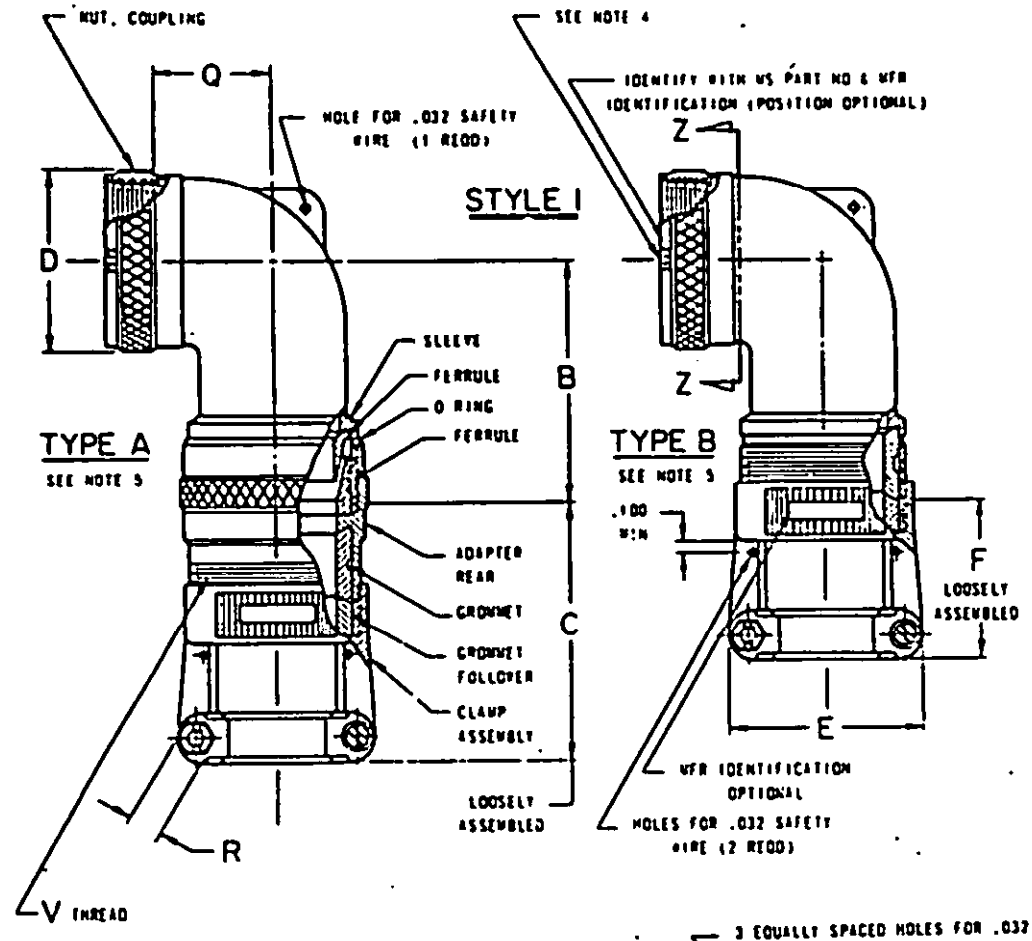
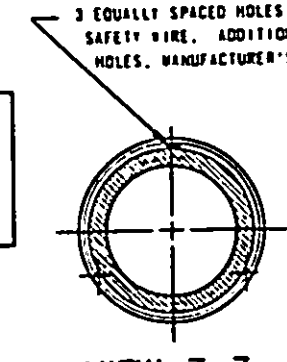
FED. SUP CLASS
5935





VIEW Z-Z

Ⓑ INACTIVE FOR DESIGN AFTER 1 JULY 1982. DOCUMENT WILL BE CANCELLED AFTER 1 JULY 1984, USE MIL-C-85049/8,/9,/24/

Ⓑ DENOTES CHANGES

APPROVED 23 JAN 1974 REVISED Ⓐ 5 Nov. 1975 Ⓑ 10 May 1982

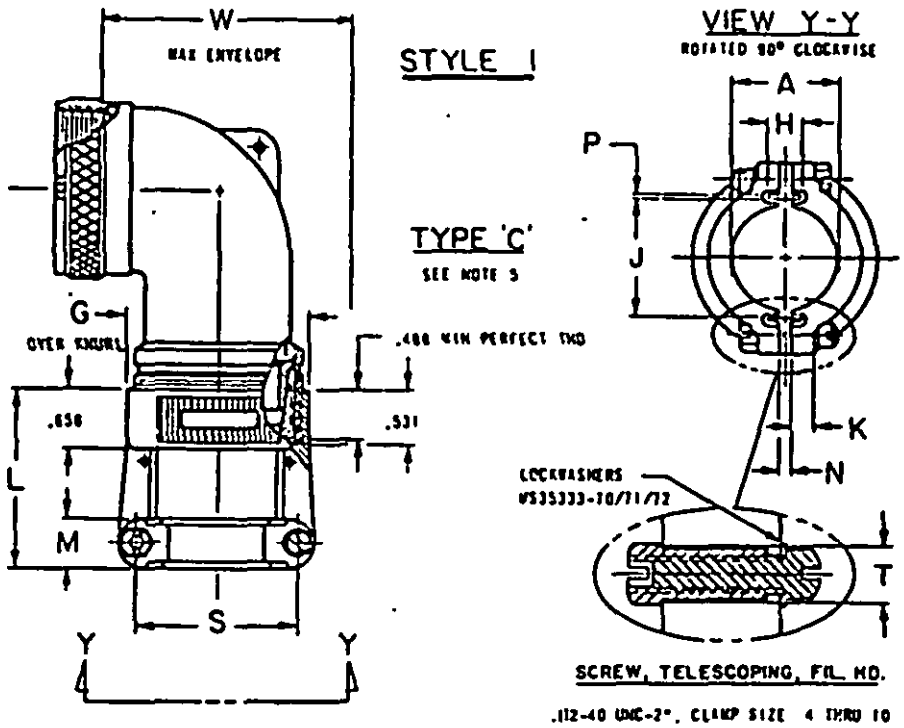
This military standard is approved by the NAVAL AIR SYSTEMS COMMAND, NAVY-AS, Department of the NAVY and shall be used by that activity. All other military activities are required to employ this standard where suitable.

P.A. NAVY-AS Other Cust.	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 1 OF 13

DD FORM 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

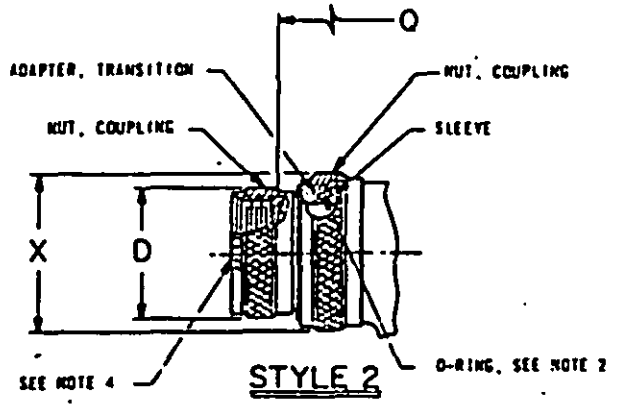
PROJECT NO. 5935-N203-04
DATE

FED. SUP CLASS
5935



SCREW, TELESCOPING, FIL HD.

.112-40 UNC-2°, CLAMP SIZE 4 THRU 10
.138-32 UNC-2°, CLAMP SIZE 12 AND 16
.164-32 UNC-2°, CLAMP SIZE 20 THRU 32



STYLE 2

APPROVED 23 JAN 1974 REVISED (B) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

This military standard is approved by the NAVAL AIR SYSTEMS COMMAND, NAVY-AS, Department of the NAVY and shall be used by that activity. All other military activities are required to employ this standard where suitable.

P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90° CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188 (NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 2 OF 13

DD FORM 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE

FED. SUP CLASS 5935

DASH NO	FITS SHELL OF CONNECTOR MIL-C 81703 SER 3	MIL-C 0026482 SER 2	MIL C 005015 CRIMP	MIL-C-83723 SER I/3	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
1	3	X	X	X	4	.125	.250	1	1.800	1.544	.669	.937	1.027	.937	.218
2					6	.250	.437	2	1.320	1.544	.669	1.125	1.027	1.031	.281
3	X	8	8S	8	4	.125	.250	1	1.200	1.544	.617	.937	1.027	.937	.218
4	X	10	10S,10SL	10	4	.125	.312	1	1.820	1.544	.734	.937	1.027	.937	.218
5	X				6	.250	.375	1	1.320	1.544	.734	1.125	1.027	1.031	.281
6	7	12	12,12S	12	4	.125	.312	1	1.940	1.544	.858	.937	1.027	937	.218
7					8	.250	.437	1	1.940	1.544	.858	1.125	1.027	1.031	.281
8					10	.350	.500	1	1.335	1.844	.858	1.312	1.027	1.250	.312
9	12	14	14,14S	14	8	.250	.437	1	2.010	1.544	.984	1.125	1.027	1.031	.281
10					10	.350	.575	1	1.655	1.844	.984	1.312	1.027	1.250	.312

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.062	R +.000 -.007	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
1	.322	.156	1.281	.312	.109	.082	.638	.250	.637	.166	.625-24 UNEF	1.18	—
2	.447	.175	1.281	.375	.125	.082	1.388	.250	.783	.166	.750-20 UNEF	2.02	.856
3	.322	.156	1.281	.312	.109	.082	.541	.250	.637	.166	.625-24 UNEF	1.09	—
4	.322	.156	1.281	.312	.109	.082	.638	.250	.637	.166	.625-24 UNEF	1.18	—
5	.447	.175	1.281	.375	.125	.082	.638	.250	.783	.166	.750-20 UNEF	1.27	—
6	.322	.156	1.281	.312	.109	.082	.641	.250	.637	.166	.625-24 UNEF	1.18	—
7	.447	.175	1.281	.375	.125	.082	.641	.250	.783	.166	.750-20 UNEF	1.28	—
8	.635	.218	1.281	.437	.125	.082	.641	.250	.984	.166	1.000-20 UNEF	1.37	—
9	.447	.175	1.281	.375	.125	.082	.741	.250	.783	.166	.750-20 UNEF	1.38	—
10	.635	.218	1.281	.437	.125	.082	.741	.250	.984	.166	1.000-20 UNEF	1.47	—

APPROVED 23 JAN 1974 REVISED (R) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

This military standard is approved by the NAVAL AIR SYSTEMS COMMAND, NAVY-AS, Department of the NAVY and shall be used by that activity. All other military activities are required to employ this standard where suitable.

P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD
Other Cost			MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 3 OF 13

DD FORM 1 MAY 73 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE

FED. SUP CLASS 5935

DASH NO	FITS SHELL OF CONNECTOR MIL-C-81703 SER 3	MIL-C-0026482 SER 2	MIL-C-005015 CRIMP	MIL-C-83723 SER 1/2	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
11	19	16	16,16S	16	8	.250	.437	1	2.100	1.544	1.112	1.125	1.027	1.031	.281
12					12	.500	.700	1	1.745	1.916	1.112	1.531	1.059	1.437	.375
13	27	18	18	18	10	.350	.625	1	2.270	1.844	1.218	1.312	1.027	1.250	.312
14					16	.625	.778	1	1.820	2.000	1.218	1.750	1.158	1.688	.375
15	37	20	20	20	10	.350	.625	1	2.270	1.844	1.345	1.312	1.027	1.250	.312
16					16	.625	.804	1	1.920	2.000	1.345	1.750	1.158	1.688	.375
17		22	22	22	12	.500	.750	1	2.380	1.916	1.468	1.531	1.059	1.437	.375
18					20	.875	1.029	1	2.025	2.230	1.468	2.093	1.375	2.000	.475
19		24	24	24	12	.500	.750	1	2.380	1.916	1.593	1.531	1.059	1.437	.375
20					20	.875	1.144	1	2.025	2.230	1.593	2.093	1.375	2.000	.475

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.062	R +.000 -.007	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
11	.447	.175	1.281	.375	.125	.062	.928	.250	.783	.168	.750-20 UNEF	1.59	—
12	.760	.250	1.312	.437	.156	.062	.928	.250	1.130	.192	1.187-18 UNEF	1.77	—
13	.635	.218	1.281	.437	.125	.062	1.018	.250	.884	.168	1.000-20 UNEF	1.80	—
14	.947	.250	1.406	.531	.188	.062	1.016	.250	1.375	.192	1.437-18 UNEF	1.97	—
15	.635	.218	1.281	.437	.125	.062	1.016	.250	.884	.168	1.000-20 UNEF	1.80	—
16	.947	.250	1.406	.531	.188	.062	1.016	.250	1.375	.192	1.437-18 UNEF	1.97	—
17	.760	.250	1.312	.437	.156	.062	1.166	.250	1.130	.192	1.187-18 UNEF	2.11	—
18	1.260	.312	1.593	.531	.188	.078	1.166	.312	1.703	.217	1.750-18 UNS	2.29	—
19	.760	.250	1.312	.437	.156	.062	1.166	.250	1.130	.192	1.187-20 UNEF	2.11	—
20	1.260	.312	1.593	.531	.188	.078	1.166	.312	1.703	.217	1.750-18 UNS	2.29	—

APPROVED 23 JAN 1974 REVISED (8) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

This military standard is approved by the NAVAL AIR SYSTEMS COMMAND, NAVY-AS, Department of the NAVY and shall be used by that activity. All other military activities are required to employ this standard where suitable.

P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
Other Cust			
Procurement Specifications	SUPERSEDES: MS3438		SHEET 4 OF 13

DD FORM 1 NOV 73 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE

FED. SUP CLASS 5935

DASH NO	FITS SHELL OF CONNECTOR MIL-C-81703 SER 3	MIL-C-0026482 SER 2	MIL-C-005015 CRIMP	MIL-C-83723 SER 1/3	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
21			28		16	.625	.937	1	2.550	2.000	1.969	1.750	1.156	1.688	.375
22					24	1.000	1.375	1	2.185	2.024	1.969	2.343	1.500	2.250	.500
23			32		16	.625	.937	1	2.800	2.000	2.219	1.750	1.156	1.688	.375
24					20	.875	1.250	1	2.800	2.230	2.219	2.093	1.375	2.000	.475
25					28	1.250	1.625	1	2.445	2.550	2.219	2.750	1.781	2.500	.625
26			36		16	.625	.937	1	2.770	2.000	2.469	1.750	1.156	1.688	.375
27					24	1.000	1.375	1	2.770	2.024	2.469	2.343	1.500	2.250	.500
28					32	1.437	1.840	1	2.415	2.800	2.469	3.000	1.830	2.750	.675
29			40		16	.625	.937	1	2.770	2.000	2.719	1.750	1.156	1.688	.375
30					24	1.000	1.375	1	2.770	2.024	2.719	2.343	1.500	2.250	.500

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.062	R +.000 -.007	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
21	.847	.250	1.406	.531	.188	.062	1.266	.250	1.375	.192	1.437-18 UNEF	2.33	—
22	1.385	.312	1.825	.531	.250	.093	1.266	.312	1.906	.217	2.000-16 UNS	2.51	—
23	.847	.250	1.406	.531	.188	.062	1.816	.250	1.375	.192	1.437-18 UNEF	2.81	—
24	1.260	.312	1.593	.531	.188	.078	1.816	.312	1.703	.217	1.750-18 UNS	2.81	—
25	1.635	.312	1.900	.812	.375	.093	1.816	.312	2.218	.217	2.250-16 UN	3.07	—
26	.847	.250	1.406	.531	.188	.062	1.816	.250	1.375	.192	1.437-18 UNEF	3.13	—
27	1.385	.312	1.625	.531	.250	.093	1.816	.312	1.906	.217	2.000-18 UNS	3.13	—
28	1.885	.312	1.900	.812	.375	.125	1.816	.312	2.500	.217	2.500-16 UN	3.39	—
29	.847	.250	1.406	.531	.188	.062	2.566	.250	1.375	.192	1.437-18 UNEF	3.88	—
30	1.385	.312	1.625	.531	.250	.093	2.566	.312	1.906	.217	2.000-18 UNS	3.88	—

APPROVED 23 JAN 1974 REVISED (8) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

This military standard is approved by the NAVAL AIR SYSTEMS COMMAND, NAVY-AS, Department of the NAVY and shall be used by that activity. All other military activities are required to employ this standard where suitable.

P.A. NAVY-AS Other Cust	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
Procurement Specifications /	SUPERSEDES: MS3438		SHEET 5 OF 13

DD, FORM, 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE

FED. SUP CLASS 5935

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DASH NO	FITS SHELL OF CONNECTOR MIL-C-81703 SER 3	MIL-C-0026482 SER 2	MIL-C-005015 CRIMP	MIL-C-83723 SER 1/3	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
31			40		32	1.437	1.875	1	2.415	2.600	2.718	3.000	1.830	2.750	.675
32					16	.625	.837	1	3.145	2.000	2.968	1.750	1.156	1.688	.375
33			44		24	1.000	1.375	1	3.145	2.024	2.969	2.343	1.500	2.250	.500
34					32	1.437	1.875	1	2.790	2.600	2.968	3.000	1.830	2.750	.675
35					16	.625	.837	1	3.395	2.000	3.218	1.750	1.156	1.688	.375
36			48		24	1.000	1.375	1	3.395	2.024	3.218	2.343	1.500	2.250	.500
37					32	1.437	1.875	1	3.395	2.600	3.218	3.000	1.830	2.750	.675
38	61				12	.500	.750	1	2.380	1.818	1.653	1.531	1.058	1.437	.375
39					20	.875	1.184	1	2.025	2.230	1.653	2.093	1.375	2.000	.475
40	19	16	16,165	18	10	.350	.625	1	2.100	1.844	1.112	1.312	1.027	1.250	.312

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.002	R +.000 -.007	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
31	1.885	.312	1.800	.812	.375	.125	2.568	.312	2.500	.217	2.500-16 UN	4.14	—
32	.947	.250	1.408	.531	.188	.082	2.588	.250	1.375	.192	1.437-18 UNEF	3.88	—
33	1.385	.312	1.625	.531	.250	.093	2.568	.312	1.808	.217	2.000-16 UNS	3.88	—
34	1.885	.312	1.800	.812	.375	.125	2.568	.312	2.500	.217	2.500-16 UN	4.14	—
35	.947	.250	1.408	.531	.188	.082	2.588	.250	1.375	.192	1.437-18 UNEF	3.88	—
36	1.385	.312	1.625	.531	.250	.093	2.568	.312	1.808	.217	2.000-16 UNS	3.88	—
37	1.885	.312	1.800	.812	.375	.125	2.568	.312	2.500	.217	2.500-16 UN	4.14	—
38	.760	.250	1.312	.437	.156	.082	1.168	.250	1.130	.192	1.187-18 UNEF	2.11	—
39	1.260	.312	1.593	.531	.188	.078	1.168	.312	1.703	.217	1.750-16 UNS	2.28	—
40	.835	.218	1.281	.437	.125	.082	.926	.250	.964	.166	1.000-20 UNEF	1.68	—

APPROVED 23 JAN 1974 REVISED Ⓑ FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD
Other Cust			MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 6 OF 13

DD, FORM, 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE

FED. SUP CLASS 5935

DASH NO	FITS SHELL OF CONNECTOR MIL-C 81703 SER 3	MIL-C 0026482 SER 2	MIL-C 005015 CRIMP	MIL-C 83723 SER 1/2	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
41	27	18	18	18	4	.125	.312	1	2.270	1.544	1.218	.937	1.027	.937	.218
42					6	.250	.437	1	2.270	1.544	1.218	1.125	1.027	1.031	.281
43	37	20	20	20	8	.250	.437	1	2.270	1.544	1.345	1.125	1.027	1.031	.281
44		22	22	22	4	.125	.312	1	2.380	1.544	1.468	.937	1.027	.937	.218
45					8	.250	.437	1	2.380	1.544	1.468	1.125	1.027	1.031	.281
46		24	24	24	10	.350	.625	1	2.380	1.844	1.593	1.312	1.027	1.250	.312
47			36		12	.500	.750	1	2.770	1.918	2.469	1.531	1.059	1.437	.375
48			40		12	.500	.750	1	2.770	1.918	2.469	1.531	1.059	1.437	.375
49		10	10S,10SL	10	6	.250	.437	2	1.940	1.544	.734	1.125	1.027	1.031	.281
50	12	14	14,14S	14	12	.500	.750	2	2.270	1.918	.984	1.531	1.059	1.437	.375

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.062	R +.000 −.007	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
41	.322	.156	1.281	.312	.109	.082	1.018	.250	.637	.166	.625-24 UNEF	1.80	—
42	.447	.175	1.281	.375	.125	.082	1.018	.250	.763	.166	.750-20 UNEF	1.80	—
43	.447	.175	1.281	.375	.125	.082	1.018	.250	.763	.166	.750-20 UNEF	1.80	—
44	.322	.156	1.281	.312	.109	.082	1.166	.250	.637	.166	.625-24 UNEF	2.11	—
45	.447	.175	1.281	.375	.125	.082	1.166	.250	.763	.166	.750-20 UNEF	2.11	—
46	.635	.218	1.281	.437	.125	.082	1.166	.250	.984	.166	1.000-20 UNEF	2.11	—
47	.760	.250	1.312	.437	.155	.082	1.816	.250	1.130	.192	1.187-18 UNEF	3.13	—
48	.760	.250	1.312	.437	.156	.082	1.816	.250	1.130	.192	1.187-18 UNEF	3.88	—
49	.447	.175	1.281	.375	.125	.082	1.391	.250	.763	.166	.750-20 UNEF	2.03	.858
50	.760	.250	1.312	.437	.156	.082	1.766	.250	1.130	.192	1.187-18 UNEF	2.61	1.218

APPROVED 23 JAN 1974 REVISED (B) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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P.A. NAVY-AS
Other Cust

INTERNATIONAL INTEREST

TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC

MILITARY STANDARD
MS3188(NAVY)

Procurement Specifications

SUPERSEDES: MS3438

SHEET 7 OF 13

DD FORM 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATE

FED. SUP CLASS 5936

DASH NO	FITS SHELL OF CONNECTOR MIL-C-81703 SER 3	MIL-C-0026482 SER 2	MIL-C-005015 CRIMP	MIL-C-83723 SER I/II	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
51	19	16	16,16S	16	16	.625	.937	2	2.380	2.000	1.112	1.750	1.156	1.688	.375
52	27	18	18	18	12	.500	.750	1	2.270	1.816	1.218	1.531	1.059	1.437	.375
53	61				16	.625	.937	1	2.025	2.000	1.653	1.750	1.156	1.688	.375
54	37	20	20	20	12	.500	.750	1	2.270	1.916	1.345	1.531	1.059	1.437	.375
55					20	.875	1.250	2	2.550	2.230	1.345	2.093	1.375	2.000	.475
56		22	22	22	10	.350	.625	1	2.380	1.844	1.468	1.312	1.027	1.250	.312
57					16	.625	.937	1	2.380	2.000	1.468	1.750	1.156	1.688	.375
58					20	.875	1.250	2	2.550	2.230	1.468	2.093	1.375	2.000	.475
59		24	24	24	16	.625	.937	1	2.380	2.000	1.533	1.750	1.156	1.688	.375
60			28		12	.500	.750	1	2.550	1.916	1.999	1.531	1.059	1.437	.375

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.062	R +.000 -.007	S ±.010	T DIA ±.035	V THREAD CLASS 2A	W MAX	X DIA MAX
51	.947	.250	1.408	.531	.188	.062	1.916	.250	1.375	.192	1.437-18 UNEF	2.87	1.468
52	.760	.250	1.312	.437	.156	.062	1.016	.250	1.130	.192	1.187-18 UNEF	1.85	—
53	.947	.250	1.408	.531	.188	.062	1.166	.250	1.375	.192	1.437-18 UNEF	2.14	—
54	.760	.250	1.312	.437	.156	.062	1.016	.250	1.130	.192	1.187-18 UNEF	1.96	—
55	1.260	.312	1.593	.531	.188	.078	2.016	.312	1.703	.217	1.750-18 UNS	3.14	1.969
56	.635	.218	1.281	.437	.125	.062	1.166	.250	.884	.168	1.000-20 UNEF	2.11	—
57	.947	.250	1.408	.531	.188	.062	1.166	.250	1.375	.162	1.437-18 UNEF	2.12	—
58	1.260	.312	1.593	.531	.188	.078	2.016	.312	1.703	.217	1.750-18 UNEF	3.14	1.969
59	.947	.250	1.408	.531	.188	.062	1.166	.250	1.375	.192	1.437-18 UNEF	2.14	—
60	.760	.250	1.312	.437	.156	.062	1.266	.250	1.130	.192	1.187-18 UNEF	2.33	—

REVISED (B) 23 JAN 1974 FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE JACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 8 OF 13

DD FORM 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATE

FED. SUP CLASS 5935

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DASH NO	FITS SHELL OF CONNECTOR MIL-C 81703 SER 3	MIL-C-0026482 SER 2	MIL-C-005015 CRIMP	MIL-C-83723 SER 1/2	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
61			28		20	.875	1.250	1	2.550	2.230	1.988	2.093	1.375	2.000	.475
62			32		24	1.000	1.375	1	2.800	2.024	2.219	2.343	1.500	2.250	.500
63			36		20	.875	1.250	1	2.770	2.230	2.469	2.093	1.375	2.000	.475
64					28	1.250	1.625	1	2.770	2.550	2.469	2.750	1.781	2.500	.625
65			40		20	.875	1.250	1	2.770	2.230	2.719	2.093	1.375	2.000	.475
66					28	1.250	1.625	1	2.770	2.550	2.719	2.750	1.781	2.500	.625
67			44		20	.875	1.250	1	3.145	2.230	2.989	2.093	1.375	2.000	.475
68					28	1.250	1.625	1	3.145	2.550	2.989	2.750	1.781	2.500	.625
69			48		20	.875	1.250	1	3.395	2.230	3.219	2.093	1.375	2.000	.475
70					28	1.250	1.625	1	3.395	2.550	3.219	2.750	1.781	2.500	.625

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.002	R .000 -.007	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
61	1.260	.312	1.593	.531	.188	.078	1.266	.312	1.703	.217	1.750-18 UNS	2.39	—
62	1.385	.312	1.625	.531	.250	.093	1.516	.312	1.906	.217	2.000-18 UNS	2.88	—
63	1.260	.312	1.593	.531	.188	.078	1.816	.312	1.703	.217	1.750-18 UNS	3.13	—
64	1.635	.312	1.900	.812	.375	.093	1.818	.312	2.218	.217	2.250-16 UN	3.27	—
65	1.260	.312	1.593	.531	.188	.078	2.566	.312	1.703	.217	1.750-18 UNS	3.88	—
66	1.635	.312	1.900	.812	.375	.093	2.566	.312	2.218	.217	2.250-16 UN	4.02	—
67	1.260	.312	1.593	.531	.188	.078	2.566	.312	1.703	.217	1.750-18 UNS	3.69	—
68	1.635	.312	1.900	.812	.375	.093	2.566	.312	2.218	.217	2.250-16 UN	4.02	—
69	1.260	.312	1.593	.531	.188	.078	2.566	.312	1.703	.217	1.750-18 UNS	3.88	—
70	1.635	.312	1.900	.812	.375	.093	2.566	.312	2.218	.217	2.250-16 UN	4.02	—

APPROVED 23 JAN 1974 REVISED Ⓑ FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
	SUPERSEDES MS3438		SHEET 9 OF 13

DD FORM 672 LIMITED COORDINATION

DATE

FED. SUP CLASS
5935

DASH NO	FITS SHELL OF CONNECTOR MIL-C-81703 SER 3	MIL-C-0026482 SER 2	MIL-C-005015 CRIMP	MIL-C-83723 SER I/II	CLAMP SIZE	A CABLE RANGE MIN	A CABLE RANGE MAX	STYLE	B ±.062	C REF	D DIA MAX	E ±.020	F REF	G DIA MAX	H ±.010
71	7	12	12,12S	12	10	.350	.625	2	2.100	1.844	.858	1.312	1.027	1.258	.312
72	27	18	18	18	18	.625	.937	2	2.380	2.000	1.218	1.750	1.156	1.688	.375
73	X	24	24	24	20	.875	1.250	2	2.550	2.230	1.593	2.093	1.375	2.008	.475
74	12	14	14,14S	14	4	.125	.312	1	2.010	1.544	.984	.937	1.027	.937	.218
75	10	16	16,16S	16	4	.125	.312	1	2.100	1.544	1.112	.937	1.027	.937	.218
(B) 76	X	X	28	X	24	1.000	1.375	2	2.800	2.024	1.969	2.343	1.500	2.250	.500
(B) 77	X	X	32	X	28	1.250	1.675	2	2.770	2.550	2.219	2.750	1.781	2.500	.625
(B) 78	X	X	36	X	32	1.437	1.875	2	2.415	2.600	2.469	3.000	1.830	2.750	.675

DASH NO	J DIA ±.010	K ±.010	L ±.020	M ±.010	N ±.010	P ±.010	Q ±.062	R +.000 -.001	S ±.010	T DIA ±.005	V THREAD CLASS 2A	W MAX	X DIA MAX
71	.635	.218	1.281	.437	.125	.082	1.688	.250	.984	.168	1.000-20 UNEF	2.42	1.112
72	.947	.250	1.406	.531	.188	.082	1.928	.250	1.375	.192	1.437-18 UNEF	2.88	1.468
73	1.260	.312	1.593	.531	.188	.078	2.026	.312	1.703	.217	1.750-18 UNS	3.15	1.969
74	.322	.156	1.281	.312	.109	.082	.741	.250	.637	.168	.625-24 UNEF	1.31	—
75	.322	.156	1.281	.312	.109	.082	.828	.250	.637	.168	.625-24 UNFF	1.59	—
(B) 76	1.385	.312	1.625	.531	.188	.093	2.366	.312	1.906	.217	2.000-18 UNF	X	X
(B) 77	1.635	.312	1.900	821	.375	.093	2.566	.312	2.218	.217	2.250-16 UN	X	X
(B) 78	1.895	.312	1.900	.821	.375	.125	3.316	.312	2.500	.217	2.500-16 UN	X	X

APPROVED 23 JAN 1974 REVISED (B) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD
Other Cust			MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 10 OF 13

DD FORM 1 MAY 73 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE

REQUIREMENTS:

1. UNLESS OTHERWISE SPECIFIED, TOLERANCES SHALL BE .XX ± .01 .XXX ± .005. ANGULAR ±0° 00'. ±0° 00' ± 0° 30'.

2. MATERIAL BACKSHELL COMPONENTS ALUMINUM ALLOY
GROMMETS AND O RING SILICONE, PER ZZ-R-765, CLASS 3A OR 3B
CLAMP ASSEMBLY SCREWS 300 SERIES STAINLESS STEEL

3. FINISH
A - CADMIUM PLATE, PER QQ-P-416, TYPE II, CLASS 3, OVER NICKEL. COLOR - OLIVE DRAB (ELECTRICALLY CONDUCTIVE)
C - CADMIUM PLATE, PER QQ-P-416, TYPE II, CLASS 3. COLOR - OLIVE DRAB (ELECTRICALLY CONDUCTIVE)

4. THIS REAR ACCESSORY SHALL CONFORM TO MS3155 (DESIGN STANDARD). MS3155 TAKES PRECEDENCE OVER THIS STANDARD.

5. APPLICATIONS
A. TYPE A BACKSHELLS ARE FOR SHIELD TERMINATION AND ENVIRONMENTAL APPLICATIONS. ARMOR SHIELD TERMINATION AND ENVIRONMENTAL APPLICATIONS MAY BE ACHIEVED BY REVERSING THE FERRULES AND GROMMETS.
B. TYPE B BACKSHELLS ARE FOR ENVIRONMENTAL APPLICATIONS ONLY AND ARE TYPE A LESS THE REAR ADAPTER AND FERRULES AND WITH THE GROMMET REPLACING THE FERRULES.
C. TYPE C BACKSHELLS ARE FOR SHIELD TERMINATION APPLICATIONS ONLY AND ARE TYPE A LESS THE REAR ADAPTER AND GROMMET.
D. STYLE 2 APPLIES WHEN THE CABLE DIAMETER EXCEEDS E DIAMETER OF MS3155.
E. SEE MS3437 FOR ASSEMBLY SEQUENCE.

6. QUALIFICATION
ONE SAMPLE IN EACH SHELL SIZE RANGE (SEE TABLE 1) FOR WHICH QUALIFICATION IS DESIRED SHALL BE TESTED. EACH SAMPLE SHALL BE ASSEMBLED TO AN APPROPRIATE CONNECTOR OR DUMMY CONNECTOR WHICH DUPLICATES THE CONNECTOR INTERFACING FEATURES. THE BACKSHELL SHALL BE ASSEMBLED WITH A 6 FOOT MINIMUM LENGTH CABLE APPROACHING THE DESIGNATED MINIMUM DIAMETER. CABLE SHALL BE IN ACCORDANCE WITH MIL-C-915. TESTING SHALL BE AS FOLLOWS AND SHALL BE PERFORMED IN THE SEQUENCE LISTED.

A. EXAMINATION OF PRODUCT

(8) B. MAGNETIC PERMEABILITY -
THE RELATIVE MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 FOR CLASSES A, C AND N WHEN CHECKED WITH AN INDICATOR CONFORMING TO MIL-I-17214. WIRED ASSEMBLIES SHALL NOT BE CARRYING CURRENT.

C. SHELL CONDUCTIVITY -
ASSEMBLIES SHALL BE ELECTRICALLY CONDUCTIVE FROM THE CONNECTOR BODY TO THE TERMINATED CABLE SHIELD AT A POINT LOCATED 1.0 INCH ±.25 INCH TO REAR OF ADAPTER. THE OVERALL D.C. RESISTANCE SHALL NOT EXCEED 0.05 OHMS WHEN MEASURED BY THE VOLTMETER-AMMETER METHOD. THE APPLIED POTENTIAL SHALL BE 7.5 VOLTS MAXIMUM. A RESISTANCE SHALL BE INSERTED IN THE CIRCUIT TO LIMIT THE CURRENT TO 1.00 ±.010 AMPERES.

D. VIBRATION -
A COUNTERPART RECEPTACLE CONNECTOR SHALL BE MOUNTED ON A SUITABLE FIXTURE, WHICH IN TURN SHALL BE ATTACHED TO THE VIBRATION TABLE. A SUITABLE SENSOR SHALL MONITOR THE VIBRATION OF THE RECEPTACLE AT A POINT ON OR NEAR THE RECEPTACLE. THE PLUG CONNECTOR AND BACKSHELL ASSEMBLY SHALL BE ENGAGED WITH THE RECEPTACLE BY NORMAL LOCKING MEANS. NO SAFETY WIRE SHALL BE USED. THE CABLES SHALL BE CLAMPED TO NON-VIBRATING POINTS AT LEAST 8 INCHES FROM THE REAR OF THE ASSEMBLY. THE CLAMPING LENGTH SHALL BE CHOSEN TO AVOID RESONANCE OF THE CABLE. THE ASSEMBLY SHALL THEN BE SUBJECTED TO THE VIBRATION REQUIREMENTS OF MIL-STD-167-1 (SHIPS) PARAGRAPH 5.1.3.3.3 AND METHOD 204, CONDITION B, OF MIL-STD-202. THERE SHALL BE NO LOOSENING OF PARTS OR EVIDENCE OF DAMAGE DUE TO VIBRATION.

APPROVED 23 JAN 1974 REVISED (8) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

P.A. NAVY-AS Other Cust	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 11 OF 13

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REQUIREMENTS (CONTINUED)

6. QUALIFICATION (CONTINUED)

E. SHOCK -
A COUNTERPART RECEPTACLE CONNECTOR SHALL BE MOUNTED ON FIXTURES IN ACCORDANCE WITH MIL-S-901, LIGHTWEIGHT. THE PLUG CONNECTOR AND BACKSHELL ASSEMBLY SHALL BE ENGAGED WITH THE RECEPTACLE BY NORMAL LOCKING MEANS. NO SAFETY WIRE SHALL BE USED. CABLES SHALL BE SUPPORTED ON A STATIONARY FRAME A MINIMUM DISTANCE OF 36 INCHES FROM THE ASSEMBLY. THE ASSEMBLY SHALL THEN BE SUBJECTED TO THE REQUIREMENTS OF MIL-S-901, GRADE A. THERE SHALL BE NO LOOSENING OF PARTS OR EVIDENCE OF DAMAGE DUE TO SHOCK.

F. MOISTURE RESISTANCE -
THE CONNECTOR AND BACKSHELL ASSEMBLY SHALL BE MOUNTED HORIZONTALLY WITH THE CABLE DESCENDING INTO THE BACKSHELL WITH NO DRIP LOOPS OR SPLICES WITHIN THE CHAMBER. THE CABLE SHALL LEAVE THE CHAMBER THROUGH VAPOR-TIGHT SEALS. THE FACE OF THE CONNECTOR SHALL BE PROTECTED FROM THE TEST ENVIRONMENT. THE TEST SHALL BE IN ACCORDANCE WITH METHOD 106 OF MIL-STD-202 (EXCEPT VIBRATION). THERE SHALL BE NO EVIDENCE OF MOISTURE ENTRANCE INTO THE BACKSHELL.

G. WATER PRESSURE -
THE CONNECTOR AND BACKSHELL ASSEMBLY SHALL BE ASSEMBLED WITH A CABLE OR TEST PLUG INSTALLED TO SIMULATE JACKETED CABLE. THE FACE OF THE CONNECTOR SHALL BE PROTECTED FROM THE TEST ENVIRONMENT. THE ASSEMBLY SHALL BE IMMERSED IN TAP WATER TO A DEPTH OF 6 FEET FOR A PERIOD OF 48 HOURS. ASSEMBLY SHALL SHOW NO EVIDENCE OF WATER ENTRANCE.

H. CORROSION -
SALT SPRAY TEST IN ACCORDANCE WITH METHOD 1001 OF MIL-STD-1344. THERE SHALL BE NO EXPOSURE OF BASIS METAL DUE TO CORROSION WHICH WILL AFFECT PERFORMANCE.

J. CABLE PULL-OUT -
A SOLID POLYCHLOROPRENE TEST PLUG OF SUITABLE LENGTH WITH O.D. CONFORMING TO TABLE I AND A SHORE A DUROMETER OF 75-85, SHALL BE INSTALLED IN THE ADAPTER IN LIEU OF CABLE. TO FACILITATE THE APPLICATION OF LOADS, THE POLYCHLOROPRENE TEST PLUG MAY BE PROVIDED WITH A METAL CORE. THE APPLICABLE TENSILE LOAD SPECIFIED IN TABLE I SHALL BE APPLIED TO THE TEST PLUG IN THE DIRECTION TENDING TO DISPLACE IT TOWARD THE REAR OF THE ADAPTER. THE LOAD SHALL BE APPLIED FOR A PERIOD OF ONE HOUR AND THE AMOUNT OF SLIPPAGE SHALL BE MEASURED. CABLES SHALL NOT PULL OUT WHEN SPECIFIED LOADS ARE APPLIED, NOR SHALL THE SLIPPAGE EXCEED 1/8 INCH.

K. POST EXAMINATION OF PRODUCT.

7. QUALITY ASSURANCE PROVISION:

A. EXAMINATION OF PRODUCT.

8. APPLICATION FOR QUALIFICATION:

A. THE ACTIVITY RESPONSIBLE FOR THE QUALIFIED PRODUCTS LIST (QPL) FOR MS3188 IS THE NAVAL AIR SYSTEMS COMMAND. THE NAVAL WEAPONS SUPPORT CENTER, CRANE, INDIANA, HAS BEEN DESIGNATED BY THE NAVAL AIR SYSTEMS COMMAND AS AGENT FOR THE ESTABLISHMENT OF THE QPL. REQUESTS FOR INFORMATION PERTAINING TO AND APPLICATIONS FOR QUALIFICATION SHOULD BE ADDRESSED TO:

COMMANDING OFFICER
NAVAL WEAPONS SUPPORT CENTER
CRANE, INDIANA 47522
ATTN: CODE 3074

APPROVED 23 JAN 1974 REVISED (B) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90° CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD MS3188(NAVY)
Preparing Activity	SUPERSEDES: MS3438		SHEET 12 OF 13

DD FORM 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

DATE

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TABLE I

DASH NUMBER	CABLE SEALING RANGE		TEST PLUG DIAMETER (INCHES)		PULL-OUT LOAD (POUNDS)	SHELL SIZE RANGE
	MINIMUM DIA (INCHES)	MAXIMUM DIA (INCHES)	MIN	MAX		
03	.125	.250	.109	.125	25	1
05	.250	.375	.234	.250		
10	.350	.575	.334	.350	50	
12	.500	.700	.484	.500		
14	.625	.779	.609	.625	75	2
18	.875	1.029	.859	.875		
22	1.000	1.315	.984	1.000		
25	1.250	1.625	1.234	1.250	100	3
28	1.437	1.875	1.421	1.437		
31	1.437	1.875	1.421	1.437		
34	1.437	1.875	1.421	1.437		
37	1.437	1.875	1.421	1.437		

PART NUMBER DEVELOPMENT

EXAMPLE: MS3188 C 06 C

- BASIC NO.
- TYPE (A, B OR C)
- DASH NO.
- FINISH (SEE NOTE 3)

APPROVED 23 JAN 1974 REVISED (B) FOR CHANGES SEE SHEETS 1, 6, 9, 10 & 11

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P.A. NAVY-AS	INTERNATIONAL INTEREST	TITLE BACKSHELL, 90°, CABLE SEALING AND SHIELD TERMINATION, CONNECTOR, ELECTRIC	MILITARY STANDARD
Other Cust.			MS3188(NAVY)
Procurement Specifications	SUPERSEDES: MS3438		SHEET 13 OF 13

DD FORM 1 MAY 73 672 (LIMITED COORDINATION) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE DATE