

Formerly MIL-C-5015 Types A and B

See page 429 for dimension table. MS receptacles mate with MS mating plugs that are on the same line in the table below. *Standard shells have cadmium plating with drab olive chromate finish. In shell sizes 12S, 14S, 16, 16S, 18, 20, 22, 24, and 28, clear chromate over cadmium plating (639), black zinc over zinc plating (621), or electroless nickel plating (689) are also available. Add the shell finish identification to the end of part number to

MS Receptacles

No. of Contacts	Shell Size and Insert	97-3100A*		97-3101A*		97-3102A*	
		EACH		EACH		EACH	
		1-9	10-49	1-9	10-49	1-9	10-49
6	20-8S*	45.26	30.59	41.03	31.84	33.03	25.62
13	20-11P	30.89	25.28	34.76	26.95	25.09	20.53
13	20-11S	61.78	46.18	57.29	44.45	46.81	38.30
5	20-14P	38.41	30.72	36.08	27.99	28.07	21.78
5	20-14S	51.02	36.63	50.19	38.95	42.18	32.72
7	20-15P	18.74	14.99	21.08	14.74	12.21	9.77
7	20-15S	24.89	19.91	26.11	20.89	18.33	14.67
9	20-16P	20.37	14.45	18.87	15.43	11.76	9.63
9	20-16S	21.32	15.37	19.65	16.08	15.22	10.76
6	20-17P	21.80	18.34	21.84	16.95	23.64	19.34
6	20-17S	26.33	22.55	26.58	20.62	17.11	14.00
9	20-18P	23.34	16.25	20.97	17.16	16.28	11.48
9	20-18S	25.60	18.51	26.57	18.44	16.34	13.37
9	20-19P	24.45	20.55	24.33	18.88	15.86	12.30
3	20-19S	29.46	25.43	27.22	21.55	16.73	12.85
9	20-21P	38.84	24.89	30.78	23.87	22.99	17.85
9	20-21S	38.71	26.18	33.30	25.83	25.53	19.81
2	20-23P	18.04	14.76	19.14	15.66	12.16	9.95
2	20-23S	23.36	16.27	24.76	17.19	16.67	11.73
4	20-24P	37.59	25.43	31.59	24.51	23.83	18.49
4	20-24S	46.60	31.51	37.40	29.02	27.63	22.61
14	20-27P	19.97	14.06	21.82	15.21	12.70	10.16
14	20-27S	20.45	16.36	23.61	16.43	16.30	11.49
17	20-29P	21.04	15.10	21.75	17.40	13.97	11.18
17	20-29S	22.92	18.34	24.15	19.32	16.37	13.10
11	20-33P	24.35	17.28	22.09	18.08	17.75	12.47
11	20-33S	21.33	17.45	26.44	18.34	15.50	12.69
2	22-1P	17.81	14.84	19.61	16.04	11.79	9.64
2	22-1S	26.07	20.36	25.91	20.10	15.44	12.63
3	22-2P	24.05	16.97	25.23	17.56	15.92	11.25
3	22-2S	23.83	19.86	26.27	21.49	21.16	14.78
4	22-4P	42.58	28.76	36.77	29.41	27.57	21.40
4	22-4S	48.37	32.71	42.91	34.34	34.13	26.47
6	22-5P	39.62	26.77	41.50	28.53	25.38	17.61
6	22-5S	25.38	21.15	41.59	28.56	20.40	15.83
2	22-8P	33.99	22.97	26.51	21.20	16.48	12.78
2	22-8S	42.52	28.72	35.83	28.66	26.53	20.59
3	22-9P	36.86	24.25	28.53	21.22	16.51	12.80
3	22-9S	44.89	30.36	35.13	28.11	24.21	19.81
2	22-10P	35.57	24.53	23.01	18.82	21.08	14.69
4	22-10S	21.81	18.17	24.03	19.66	16.23	13.28
2	22-11P	33.07	22.34	25.74	20.58	15.89	12.18
2	22-11S	35.50	24.01	28.39	22.71	15.36	12.56
2	22-12P	42.58	31.84	40.32	32.98	34.51	26.77
5	22-12S	49.62	33.56	44.17	35.33	35.46	27.51
5	22-13P	39.46	26.68	33.07	26.45	23.83	18.49
5	22-13S	41.50	30.05	37.84	30.27	28.72	22.28
19	22-14P	23.20	18.56	24.20	19.36	8.74	6.35
19	22-14S	26.32	21.05	27.31	21.85	20.73	14.52
6	22-15P	42.20	28.53	35.61	28.48	22.22	18.51
6	22-15S	51.22	34.63	46.33	37.05	37.74	29.29
9	22-16P	25.69	19.90	26.29	21.04	16.27	12.64
9	22-16S	26.07	20.44	26.84	21.45	16.85	13.08
8	22-18P	23.12	16.10	24.35	18.05	15.06	10.66
8	22-18S	23.36	16.27	20.83	17.04	12.97	10.61
14	22-19P	20.05	16.71	22.10	18.08	14.28	11.68
14	22-19S	24.89	17.89	22.60	18.49	14.78	12.09
9	22-20P	19.24	16.03	21.17	17.32	13.37	10.94
9	22-20S	19.77	16.47	26.00	18.05	13.96	11.42
4	22-22P	27.55	19.10	28.62	20.96	16.98	13.89
4	22-22S	34.20	23.58	31.44	25.72	23.64	19.34
8	22-23P	26.52	18.39	23.82	19.49	18.29	12.87
8	22-23S	33.31	22.97	30.99	25.35	25.52	17.73
7	22-26P	43.64	29.50	37.75	30.19	28.59	22.18
7	22-26S	49.62	33.56	44.17	35.33	35.46	27.51
9	22-27P	25.81	17.43	26.92	20.51	15.63	12.80
9	22-27S	27.95	19.34	28.93	21.83	17.48	14.30
7	22-28P	43.18	29.18	37.25	29.80	28.07	21.78
7	22-28S	59.56	41.62	55.49	44.38	47.50	36.87
5	22-34P	39.46	26.68	34.56	28.80	19.37	15.85
5	22-34S	41.39	27.99	34.87	27.90	25.81	20.02
7	24-2P	25.02	17.38	25.16	18.70	16.45	11.60
7	24-2S	29.61	20.49	29.77	21.73	18.61	15.23
16	24-5P	30.55	21.13	26.47	21.66	19.77	15.83
16	24-5S	34.18	23.58	34.22	26.73	23.46	18.77
8	24-6P	48.92	33.53	49.00	33.57	32.00	22.11
8	24-6S	63.05	43.05	42.80	35.67	46.85	32.14
16	24-7P	28.56	19.77	28.62	19.81	17.45	14.28
16	24-7S	25.56	21.30	25.60	21.34	22.42	15.63
2	24-9P	38.42	28.38	38.50	30.80	29.30	22.72
2	24-9S	44.47	32.84	44.80	35.85	29.13	23.83
7	24-10P	41.26	27.50	32.99	27.49	29.87	20.66



specify a shell finish other than drab olive. *notes the shell styles that are available with all four of these finish choices. Pricing shown is for standard drab olive and for (639) clear chromate and (621) black zinc finishes. Prices for finish (689) are higher. See page 436 for cable clamps and other accessories.

MS Mating Plugs

Shell Size and Insert	97-3106A*		97-3107A*		97-3106B*		97-3108A*		97-3108B*	
	EACH		EACH		EACH		EACH		EACH	
	1-9	10-49	1-9	10-49	1-9	10-49	1-9	10-49	1-9	10-49
20-8P	28.08	22.98	41.32	30.50	39.55	30.69	57.98	44.98	40.99	31.79
20-11S	51.45	42.10	63.55	46.94	63.26	49.08	81.71	63.40	64.71	50.21
20-11P	32.44	26.54	42.44	31.34	40.75	31.62	59.17	45.91	42.18	32.72
20-14S	37.45	31.21	56.92	42.04	56.20	43.60	74.61	57.90	40.15	33.46
20-14P	30.36	25.30	43.68	32.27	42.08	32.65	60.53	46.97	43.50	33.76
20-15S	28.14	19.49	30.80	25.20	30.75	22.70	48.02	35.47	31.58	23.70
20-15P	20.48	16.38	29.09	21.48	22.95	18.36	42.13	31.10	25.91	19.53
20-16S	21.75	17.40	24.50	20.42	26.29	19.40	43.32	31.99	26.81	20.21
20-16P	19.13	15.65	23.31	21.64	25.34	18.71	42.35	31.27	26.12	19.70
20-17S	27.10	20.31	34.55	25.52	32.34	25.09	50.78	39.40	33.76	26.19
20-17P	22.33	16.76	30.15	22.26	27.89	21.64	46.06	35.73	29.34	22.77
20-18S	23.69	19.38	33.77	24.94	29.54	21.81	46.82	34.59	30.77	22.79
20-18P	25.25	17.55	31.37	23.17	27.57	20.07	44.45	32.82	28.79	21.05
20-19S	27.10	20.31	37.75	27.87	35.74	27.73	54.19	42.05	37.17	28.84
20-19P	24.92	18.62	32.45	23.97	30.13	23.36	48.54	37.66	31.55	24.48
20-21S	33.76	25.32	40.80	30.14	39.29	30.48	57.72	44.78	40.73	31.59
20-21P	25.86	21.16	38.72	28.60	36.77	28.53	55.20	42.82	38.20	29.63
20-23S	21.45	17.55	25.54	21.28	27.20	20.08	44.47	32.84	28.93	21.08
20-23P	19.40	15.87	29.58	21.84	26.14	18.90	41.72	30.81	27.39	19.90
20-24S	37.90	28.42	44.94	33.19	43.40	33.67	61.87	48.00	44.83	34.79
20-24P	32.08	24.06	39.50	29.17	37.61	29.18	56.04	43.48	39.04	30.28
20-27S	22.47	17.97	27.11	22.18	26.44	19.32	43.19	31.89	26.06	20.85
20-27P	23.14	16.12	25.77	21.09	24.89	18.34	41.91	30.94	27.97	20.97
20-29S	24.66	19.73	32.06	23.68	25.45	20.82	42.15	33.72	30.55	22.91
20-29P	22.24	17.79	29.98	22.12	24.96	19.97	39.75	31.80	27.15	19.93
20-33S	22.87	18.71	33.01	24.38	29.41	21.26	46.07	34.02	32.15	24.11
20-33P	22.33	18.27	32.45	23.97	28.79	20.86	45.52	33.60	31.52	23.64
22-1S	22.35	18.29	38.18	28.19	30.60	23.74	50.60	39.26	30.26	24.20
22-1P	18.89	15.45	34.58	25.54	20.42	17.02	46.78	36.31	26.95	21.55
22-2S	25.39	20.77	41.20	30.43	32.16	23.43	50.48	37.27	27.64	23.04
22-2P	20.38	16.67	29.21	24.34	27.58	19.94	36.31	30.26	28.79	20.91
22-4S	42.13	31.59	54.61	40.33	48.13	37.34	68.15	52.87	46.69	37.34
22-4P	29.52	24.60	48.47	35.78	41.59	32.27	61.59	47.80	40.56	32.45
22-5S	39.62	27.23	45.93	33.91	36.42	26.90	55.18	40.75	38.01	28.07
22-5P	39.10	26.89	45.33	33.47	35.85	26.46	54.61	40.33	37.43	27.63
22-8S	34.55	25.89	47.49	35.06	40.54	31.46	60.55	46.99	39.60	31.68
22-8P	24.57	18.43	37.94	28.01	30.41	23.59	50.42	39.13	32.02	24.85
22-9S	31.12	25.46	46.82	34.59	39.85	30.91	59.86	46.44	41.51	32.00
22-9P	30.55	25.00	37.96	28.04	30.36	23.55	50.38	37.89	32.02	24.86
22-10S	18.83	16.93	38.30	27.78	27.78	21.78	47.78	33.14	33.14	22.19
22-10P	22.12	18.10	37.96	28.04	24.75	20.25	47.22	34.87	32.05	22.19
22-11S	26.89	20.17	40.09	29.59	32.82	25.30	52.64	40.82	34.31	26.21
22-11P	19.85	16.24	37.19	27.47	22.50	18.41	49.57	38.45	31.22	24.62
22-12S	43.46	32.59	55.87	41.26	49.45	38.68	69.47	53.91	51.15	39.68
22-12P	35.31	29.43	54.97	40.59	33.90	26.89	68.53	53.16	50.21	36.97
22-13S	36.73	27.54	49.54	36.58	42.73	33.15	62.80	48.68	44.41	34.45
22-13P	31.59	23.70	44.74	33.03	37.61	29.18	57.61	44.71	39.29	30.48
22-14S	26.32	21.05	35.47	29.02	27.38	22.40	43.36	35.48	28.72	23.50
22-14P	24.42	16.96	37.45	27.65	24.62	20.14	46.74	34.51	31.50	21.81
22-15S	45.74	34.31	58.01	42.83	51.74	40.14	71.75	55.67	53.42	41.47
22-15P	34.31	25.74	47.30	34.92	40.32	31.28	60.32	46.80	41.99	34.28
22-16S	24.94	18.71	38.24	28.26	30.69	23.81	50.70	39.33	32.36	25.11
22-16P	24.35	18.27	37.73	27.85	30.13	23.36	50.13	38.89	31.78	24.67
22-18S	19.92	16.30	35.80	26.43	26.58	19.61	45.05	33.27	29.74	20.58
22-18P	19.43	15.89	35.32	26.08	26.44	19.29	44.62	32.94	29.26	20.27
22-19S	21.69	17.75	37.53	27.72	28.05	20.71	46.80	34.57	31.59	21.87
22-19P	21.19	17.34	37.03	27.24	27.55	20.35	46.33	34.20	31.08	21.52
22-20S	20.88	17.08	29.66	24.72	24.95	20.13	46.43	33.99	30.78	21.30
22-20P	20.26	16.58	36.16	26.70	27.16	19.90	38.21	30.18	30.15	20.87
22-22S	30.55	25.00	46.26	34.17	31.09	25.91	55.53	41.00	41.05	28.42
22-22P	23.89	19.55	39.69	29.31	30.77	22.51	48.97	36.16	33.91	23.48
22-23S	30.10	24.63	37.96	31.64	36.68	26.84	55.09	40.68	40.44	28.00
22-23P	26.32	21.37	38.84	28.61	29.96	21.59	48.00	35.45	32.88	22.75
22-26S	43.46	32.59	55.87	41.26	49.45	38.68	69.47	53.91	51.99	34.78
22-26P	35.31	27.45	49.43	36.51	43.04	33.04	60.32	46.80	44.79	34.28
22-27S	27.85	18.82	42.73	31.55	33.24	24.54	52.00	38.40	34.82	25.72
22-27P	26.07	17.60	40.41	29.84	30.94	22.86	49.70	36.70	32.53	24.02
22-28S	55.52	41.63	67.18	49.60	61.52	47.72	81.53	63.26	63.21	49.03
22-28P	29.97	24.97	48.95	36.15	42.08	32.65	62.10	48.17	43.77	33.97
22-34S	29.92	24.48	46.56	34.39	39.29	30.48	59.57	46.22	41.22	31.98
22-34P	31.59	23.70	44.73	33.03	37.61	29.18	57.61	44.71	39.29	30.48
22-24S	26.75	21.88	41.59	30.71	36.60	27.03	51.67	39.99	35.50	24.58
24-2P	26.74	21.88	36.95	27.28	31.92	23.57	49.52	36.57	34.41	19.97
24-5S	32.41	25.93	39.83	32.58	40.51	27.91	57.82	42.70	39.40	27.28
24-5P	25.57	20.92	38.71	31.68	36.84	27.12	54.31	40.11	35.66	24.69
24-6S	46.67	38.19	63.40	46.81	58.39	43.10	75.98	56.11	56.22	40.68
24-6P	49.56	33.97	49.08	36.23	44.08	32.56	61.65	45.52	43.48	30.09
24-7S	27.52	22.51	42.37	31.29	37.37	27.59	54.95	40.58	36.34	25.16
24-7P	25.61	20.96	32.97	27.47	35.50	26.23	53.07	39.20	34.34	23.77
24-9S	45.43	34.08	56.66	41.83	55.07	42.73	73.81	57.27	48.34	38.67
24-9P	31.91	26.11	50.31	37.15	48.32	37.48	59.57	46.22	42.02	33.60
24-10S	41.23	33.73	55.89	41.28	50.91	37.57	68.46	50.56	51.01	35.31