

# AMPHENOL MS/Standard Connectors

Amphenol®

## MIL-DTL-5015 TYPE CIRCULAR CONNECTORS

MS connectors meet the latest performance requirements of MIL-DTL-5015. These connectors represent well-proven electrical capability at an acceptable cost for most equipment where durability is important. MS connectors are best suited to commercial applications where low cost and durability are necessary. MIL-DTL-5015 features threaded couplings and single key/keyway polarization, representing maximum simplicity in design.

### Materials:

- Shells: Fabricated from high grade aluminum alloy with an olive drab chromate finish
- Contacts: Machined copper alloy with a silver plated finish
- Inserts: Black resilient neoprene

### Insert Arrangements:

- Please see the insert arrangement table in the 97 series catalog section
- A – Solid Shell – for general, non-environmental applications.
- E/F – Environmental Resisting with Strain Relief – designed for applications where the connector will be exposed to moisture, vibration, and rapid change in pressure and temperature.
- R – Lightweight Environmental Resisting – shorter in length and lighter in weight than the E and F classes, the MS-R offers a high degree of reliability under adverse conditions. Recommended for new design applications

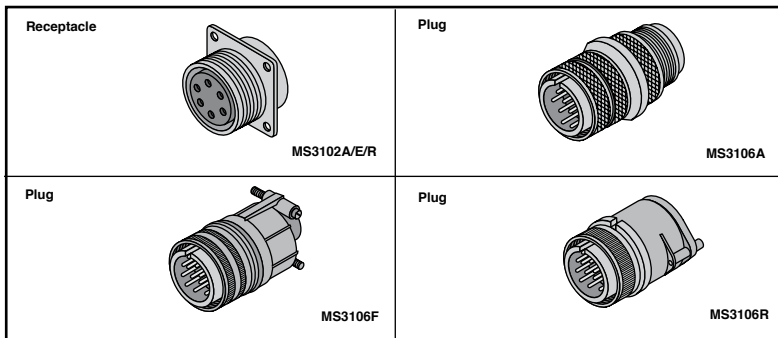
### Features:

- Durable, field-proven design
- Environmental resistant
- Resilient inserts
- Operating voltage to 3000 VAC (RMS) at sea level

- Threaded couplings
- Single key/keyway shell polarization
- Cost effective

### Applications:

- Engines
- Sensors
- Motion Control
- Off-Road Vehicles
- Mobile Equipment
- Industrial Machinery
- Telecommunications
- Power Generators
- Ships



## A-Type - Standard Duty

MS-A class connectors perform many of the vital functions in powering, testing and ground support systems. Class A applications include communications equipment, computers and shipboard installations where mechanical forces and physical parameters are not subject to environmental changes. Inserts offer high dielectric strength, high arc resistance and resistance to vibration.

### Box Mount Receptacles

### Straight Plugs

For quantities greater than listed, call for quote.

# of Pos.	Insert Arrangement	Contact Size	MOUSER STOCK NO.	Amphenol Part No.	Contact Type	Price Each			MOUSER STOCK NO.	Amphenol Part No.	Contact Type	Price Each		
						1	5	10				1	5	10
2	10SL-4	#12	654-MS3102A10SL-4P	MS3102A10SL-4P	Pin	4.78	4.52	4.33	654-MS3106A10SL-4S	MS3106A10SL-4S	Socket	12.48	11.38	10.80
2	12S-3P	#12	654-MS3102A12S-3P	MS3102A12S-3P	Pin	8.00	7.40	6.89	654-MS3106A12S-3S	MS3106A12S-3S	Socket	12.78	11.90	11.03
2	12S-3S	#12	654-MS3102A12S-3S	MS3102A12S-3S	Socket	8.67	7.95	7.34	654-MS3106A12S-3P	MS3106A12S-3P	Pin	15.58	14.60	13.56
2	16-11S	#12	654-MS3102A16-11S	MS3102A16-11S	Socket	10.02	9.41	9.09	654-MS3106A16-11P	MS3106A16-11P	Pin	19.24	17.65	16.29
2	16-11	#12	654-MS3102A16-11P	MS3102A16-11P	Pin	8.66	7.97	7.35	654-MS3106A16-11S	MS3106A16-11S	Socket	20.38	18.68	17.25
2	20-23	#8	654-MS3102A20-23S	MS3102A20-23S	Socket	20.18	19.32	16.51	654-MS3106A20-23P	MS3106A20-23P	Pin	24.13	23.10	19.74
3	10SL-3	#16	654-MS3102A10SL-3P	MS3102A10SL-3P	Pin	5.22	4.94	4.72	654-MS3106A10SL-3S	MS3106A10SL-3S	Socket	17.15	15.87	14.58
3	10SL-3	#16	654-MS3102A10SL-3S	MS3102A10SL-3S	Socket	10.94	10.32	9.87	654-MS3106A10SL-3P	MS3106A10SL-3P	Pin	21.15	18.79	16.91
3	16-10	#12	654-MS3102A16-10P	MS3102A16-10P	Pin	10.00	9.20	8.47	654-MS3106A16-10S	MS3106A16-10S	Socket	18.92	17.13	15.41
3	16-10	#16	654-MS3102A16-10S	MS3102A16-10S	Socket	11.37	10.75	9.92	654-MS3106A16-10P	MS3106A16-10P	Pin	18.99	17.53	16.36
3	14S-7	#16	654-MS3102A14S-7P	MS3102A14S-7P	Pin	7.87	7.46	6.85	654-MS3106A14S-7S	MS3106A14S-7S	Socket	16.60	15.23	14.05
3	14S-7	#16	654-MS3102A14S-7S	MS3102A14S-7S	Socket	8.76	8.15	7.52	654-MS3106A14S-7P	MS3106A14S-7P	Pin	13.87	12.72	11.74
3	16S-5P	#16	654-MS3102A16S-5P	MS3102A16S-5P	Pin	10.44	9.40	8.55	654-MS3106A16S-5S	MS3106A16S-5S	Socket	18.10	16.59	15.31
3	22-9	#12	654-MS3102A22-9P	MS3102A22-9P	Pin	13.83	13.24	11.32	654-MS3106A22-9S	MS3106A22-9S	Socket	23.25	20.75	19.26
4	14S-2	#16	654-MS3102A14S-2P	MS3102A14S-2P	Pin	8.02	7.60	7.27	654-MS3106A14S-2S	MS3106A14S-2S	Socket	12.90	11.74	10.75
4	14S-2	#16	654-MS3102A14S-2S	MS3102A14S-2S	Socket	9.11	8.91	8.36	654-MS3106A14S-2P	MS3106A14S-2P	Pin	13.43	12.36	11.17
4	18-4	#16	654-MS3102A18-4P	MS3102A18-4P	Pin	10.69	9.70	9.19	654-MS3106A18-4S	MS3106A18-4S	Socket	20.82	19.09	17.62
4	18-4	#16	654-MS3102A18-4S	MS3102A18-4S	Socket	13.38	12.81	10.95	654-MS3106A18-4P	MS3106A18-4P	Pin	18.00	17.29	15.68
4	20-4	#12	654-MS3102A20-4P	MS3102A20-4P	Pin	12.82	11.09	10.35	654-MS3106A20-4S	MS3106A20-4S	Socket	20.98	19.36	17.97
4	20-7	#16	654-MS3102A20-7S	MS3102A20-7S	Socket	17.81	17.22	16.27	654-MS3106A20-7P	MS3106A20-7P	Pin	22.13	20.30	17.91
4	22-22	#8	654-MS3102A22-22P	MS3102A22-22P	Pin	19.07	17.62	15.82	654-MS3106A22-22S	MS3106A22-22S	Socket	39.01	35.66	30.55
4	22-22	#8	654-MS3102A22-22S	MS3102A22-22S	Socket	30.75	29.44	25.16	654-MS3106A22-22P	MS3106A22-22P	Pin	33.11	31.70	27.09
5	14S-5	#16	654-MS3102A14S-5P	MS3102A14S-5P	Pin	6.97	5.88	5.43	654-MS3106A14S-5S	MS3106A14S-5S	Socket	17.13	16.18	14.93
5	14S-5	#16	654-MS3102A14S-5S	MS3102A14S-5S	Socket	8.86	8.09	7.06	654-MS3106A14S-5P	MS3106A14S-5P	Pin	12.30	11.58	10.70
5	16S-8	#16	654-MS3102A16S-8P	MS3102A16S-8P	Pin	10.95	10.48	8.95	654-MS3106A16S-8S	MS3106A16S-8S	Socket	20.63	17.61	15.57
5	16S-8S	#16	654-MS3102A16S-8S	MS3102A16S-8S	Socket	12.37	11.84	10.12	654-MS3106A16S-8P	MS3106A16S-8P	Pin	17.11	15.27	13.60
5	18-11	#12	654-MS3102A18-11P	MS3102A18-11P	Pin	13.00	11.91	11.00	654-MS3106A18-11S	MS3106A18-11S	Socket	22.06	19.68	18.27
6	14S-6	#16	654-MS3102A14S-6P	MS3102A14S-6P	Pin	7.86	7.49	7.12	654-MS3106A14S-6S	MS3106A14S-6S	Socket	12.18	11.42	10.64
6	14S-6	#16	654-MS3102A14S-6S	MS3102A14S-6S	Socket	8.71	7.82	7.02	654-MS3106A14S-6P	MS3106A14S-6P	Pin	17.00	15.45	13.72
7	16S-1	#16	654-MS3102A16S-1P	MS3102A16S-1P	Pin	9.27	8.72	8.22	654-MS3106A16S-1S	MS3106A16S-1S	Socket	16.08	14.89	13.96
7	16S-1	#16	654-MS3102A16S-1S	MS3102A16S-1S	Socket	11.79	10.88	10.11	654-MS3106A16S-1P	MS3106A16S-1P	Pin	16.36	15.04	13.52
8	18-8	#12	654-MS3102A18-8P	MS3102A18-8P	Pin	13.24	11.80	10.79	654-MS3106A18-8S	MS3106A18-8S	Socket	23.78	21.15	20.56
8	22-23	#12	654-MS3102A22-23P	MS3102A22-23P	Pin	16.12	14.45	13.00	654-MS3106A22-23S	MS3106A22-23S	Socket	28.52	26.26	24.33
9	22-20	#12	654-MS3102A22-20S	MS3102A22-20S	Socket	19.64	18.13	16.84	654-MS3106A20-4P	MS3106A20-4P	Pin	19.27	17.35	15.61
9	24-11	3#8/6#12	654-MS3102A24-11P	MS3102A24-11P	Pin	22.12	19.83	18.44	654-MS3106A24-11S	MS3106A24-11S	Socket	41.46	38.01	35.08
9	24-11	3#8/6#12	654-MS3102A24-11S	MS3102A24-11S	Socket	33.95	29.94	27.52	654-MS3106A24-11P	MS3106A24-11P	Pin	32.76	30.03	26.50
10	18-1	#16	654-MS3102A18-1P	MS3102A18-1P	Pin	10.60	10.09	9.60	654-MS3106A18-1S	MS3106A18-1S	Socket	17.36	15.84	12.54
10	18-1	#16	654-MS3102A18-1S	MS3102A18-1S	Socket	13.52	13.11	12.24	654-MS3106A18-1P	MS3106A18-1P	Pin	18.43	16.81	15.46
14	20-27	#16	654-MS3102A20-27P	MS3102A20-27P	Pin	14.50	14.02	13.78	654-MS3106A20-27S	MS3106A20-27S	Socket	29.46	27.77	22.99
14	20-27	#16	654-MS3102A20-27S	MS3102A20-27S	Socket	23.65	22.33	20.69	654-MS3106A20-27P	MS3106A20-27P	Pin	30.14	26.40	24.52
10	18-19	#16	654-MS3102A18-19S	MS3102A18-19S	Socket	16.74	15.78	14.98	654-MS3106A18-19P	MS3106A18-19P	Pin	23.01	21.10	19.48
14	22-19	#16	654-MS3102A22-19S	MS3102A22-19S	Socket	21.67	18.38	15.93	654-MS3106A22-19P	MS3106A22-19P	Pin	30.84	29.53	25.23
17	20-29	#16	654-MS3102A20-29P	MS3102A20-29P	Pin	21.52	19.76	18.12	654-MS3106A20-29S	MS3106A20-29S	Socket	30.79	28.99	24.54
17	20-29	#16	654-MS3102A20-29S	MS3102A20-29S	Socket	19.17	18.83	17.85	654-MS3106A20-29P	MS3106A20-29P	Pin	25.53	23.61	21.54
19	22-14	#16	654-MS3102A22-14P	MS3102A22-14P	Pin	19.59	19.22	18.85	654-MS3106A22-14S	MS3106A22-14S	Socket	34.05	33.88	29.60
19	22-14	#16	654-MS3102A22-14S	MS3102A22-14S	Socket	29.26	26.93	24.97	654-MS3106A22-14P	MS3106A22-14P	Pin	30.31	27.78	25.64
20	28-16	#16	654-MS3102A28-16S	MS3102A28-16S	Socket	30.76	29.45	25.17	654-MS3106A28-16P	MS3106A28-16P	Pin	43.16	41.32	35.31
24	24-28	#16	654-MS3102A24-28P	MS3102A24-28P	Pin	26.21	24.78	22.47	654-MS3106A24-28S	MS3106A24-28S	Socket	41.32	37.87	34.96
24	24-28	#16	654-MS3102A24-28S	MS3102A24-28S	Socket	38.59	36.18	33.41	654-MS3106A24-28P	MS3106A24-28P	Pin	30.57	29.16	27.08
37	28-21	#16	654-MS3102A28-21S	MS3102A28-21S	Socket	51.03	45.93	41.33	654-MS3106A28-21P	MS3106A28-21P	Pin	51.83	47.12	39.88
37	28-21	#16	654-MS3102A28-21P	MS3102A28-21P	Pin	32.75	30.32	27.88	654-MS3106A28-21S	MS3106A28-21S	Socket	56.02	51.58	46.42