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Amphenol®



AC and SAE AS50151 Threaded Standard Cylindrical Connectors

Amphenol® AC Series Connectors

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For additional information on AC Series or SAE AS50151 Connectors for special application requirements, contact your local sales office or –

Amphenol Corporation
Amphenol Industrial Operations
 191 Delaware Avenue
 Sidney, New York 13838-1395
 Telephone: 888-364-9011 Fax: 520-397-7169
 www.amphenol-industrial.com

Ask for the Amphenol Industrial North American Product Overview for additional connectors offered.

For specific questions about RoHS compliance, consult Amphenol Industrial Operations, or call the RoHS Product Compliance and Technical Support line: 1-866-315-8559

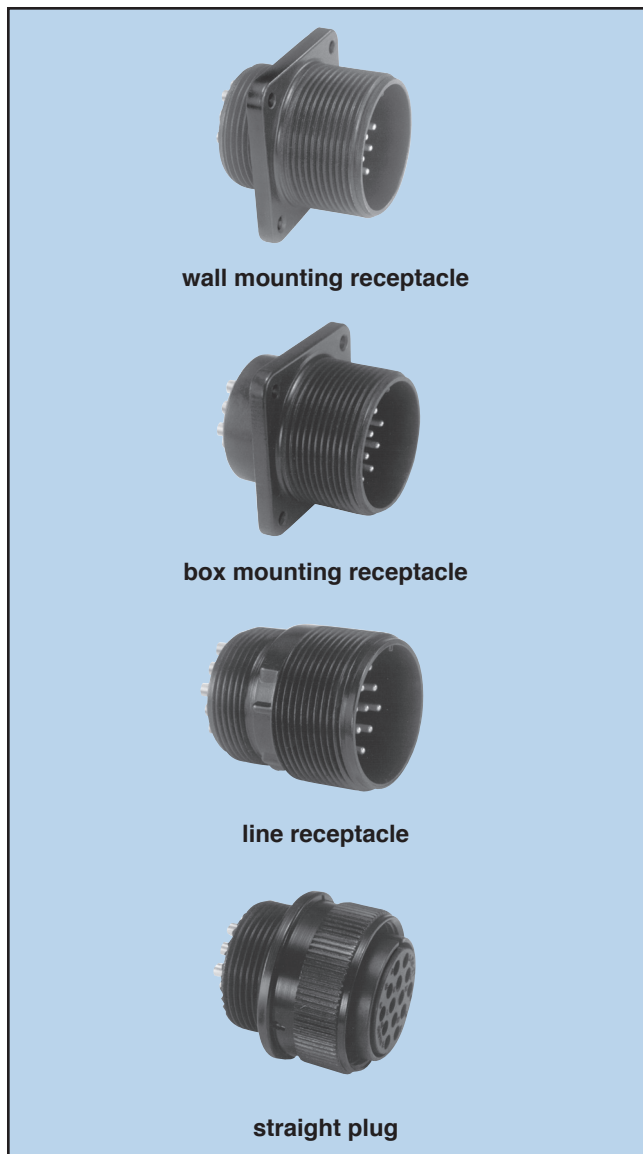
This catalog can be viewed, printed and saved from website: www.amphenol-industrial.com.

Amphenol Industrial is a Certified ISO 9001 Manufacturer.

Amphenol® AC Series

industrial application threaded style connector

AC Threaded Series



wall mounting receptacle

box mounting receptacle

line receptacle

straight plug

AC Threaded Connectors with RADSOK® High Amperage Contacts



Designed with the industrial user in mind, for widely diverse applications such as mass transportation, automotive, heavy equipment and geophysical industries, and for the entertainment/ lighting industries, the new AC Series of Connectors offer the following features:

- Rugged aluminum shells
- Durability and reliability
- Environmentally acceptable shell plating options -
 - Conductive and non-conductive
- Single key/keyway shell polarization
- Five shell styles in sizes 10SL to 40
- Threaded coupling
- Various backshells
- Resilient inserts -
 - Outstanding moisture barrier
 - High dielectric strength
 - High resistance to vibration
- Over 275 insert patterns available
- Alternate insert positioning
- Machined contacts -
 - Maximum corrosion resistance
 - Maximum current capacity
 - Low millivolt drop
- Solder and crimp contacts - silver plated or optional gold plating
- General duty and environmental versions
- -55° C to +125° C operating temp. range
- Standard application tools

Amphe-Power™ Connectors - AC Threaded Connectors with RADSOK® contacts are also available. These are high amperage capability connectors designed for the most demanding industrial and transportation applications.

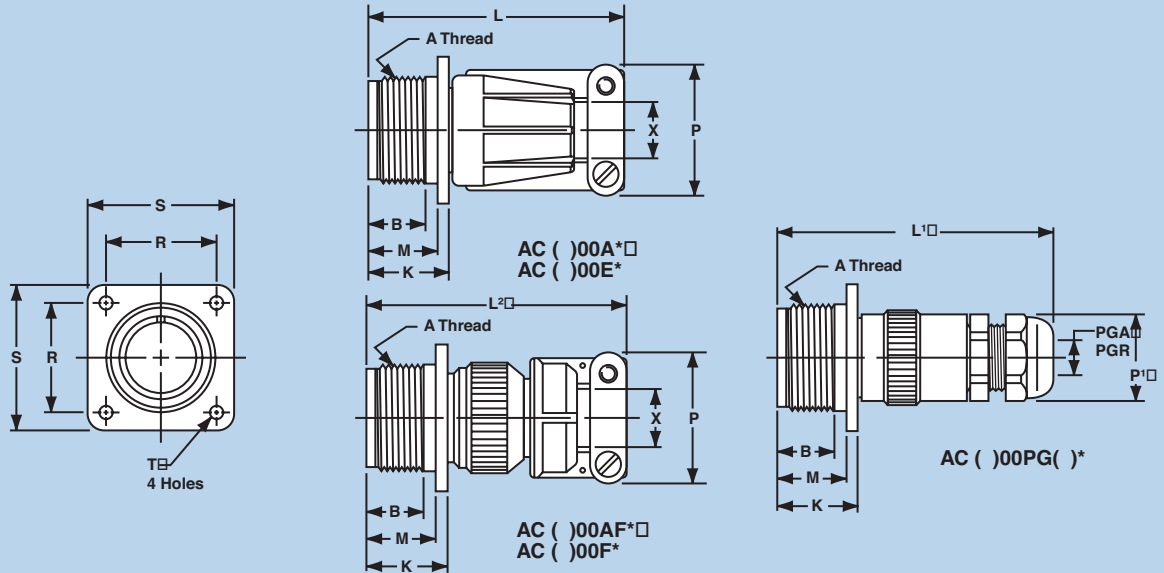
- The RADSOK contact will handle 50% to 150% higher amperages than standard contacts (size dependent).
 - Current Amphe-Power lines support from 35A to 500A continuous duty.
 - RADSOK contacts are available in size 12 (35 amps), size 8 (70 amps), size 4 (120 amps), and size 0 (250 amps).
- See page 31 for more information.

Note: The previous AC-B Bayonet series is replaced by the newer ACA-B Reverse Bayonet series. For availability of the AC-B, consult Amphenol Industrial Operations. For information on ACA-B Reverse Bayonet series connectors see Amphenol catalog IC-4.



RoHS Compliant options available.

AC Threaded wall mounting receptacle



* To complete order number, see how to order, page 59.

Inches

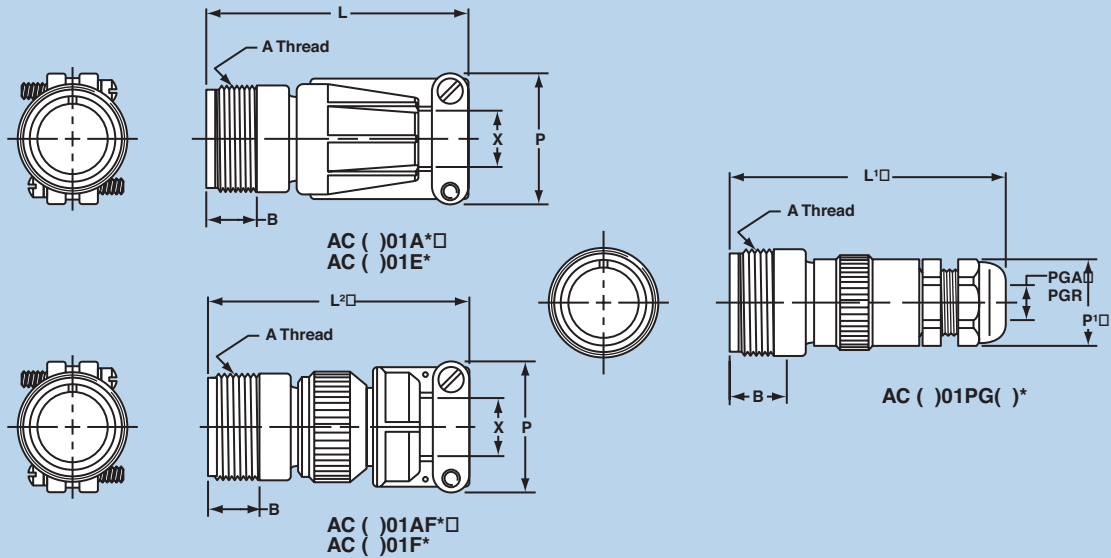
Shell Size	A Thread Class 2A	B Min Full Thread	K +.020 -.010	L Max	L ¹ Max	L ² Max	M +.010 -.000	P Max	P ¹ Hex Flats Ref	PGA Ref	PGR Ref	R ±.005	S ±.010	T Dia +.004 -.002	X Max O.D. Cable
10SL	.6250-24UNEF	.391	.672	2.129	3.010	2.189	.562	.894	.750	.150/.320	.070/.240	.719	1.000	.120	.312
12S	.7500-20UNEF	.450	.672	2.129	3.010	2.261	.562	.894	.750	.150/.320	.070/.240	.812	1.094	.120	.312
12	.7500-20UNEF	.625	.860	2.524	3.500	2.644	.750	.894	.750	.150/.320	.070/.240	.812	1.094	.120	.312
14S	.8750-20UNEF	.450	.672	2.201	3.188	2.261	.562	1.083	.880	.190/.390	.110/.280	.906	1.188	.120	.438
14	.8750-20UNEF	.625	.860	2.524	3.641	2.644	.750	1.083	.880	.190/.390	.110/.280	.906	1.188	.120	.438
16S	1.0000-20UNEF	.450	.672	2.201	3.265	2.266	.562	1.181	.940	.230/.470	.190/.350	.969	1.281	.120	.531
16	1.0000-20UNEF	.625	.860	2.524	3.718	2.644	.750	1.181	.940	.230/.470	.190/.350	.969	1.281	.120	.531
18	1.1250-18UNEF	.625	.891	2.596	3.718	2.716	.750	1.300	.940	.230/.470	.190/.350	1.063	1.375	.120	.625
20	1.2500-18UNEF	.625	.891	2.654	3.798	2.774	.750	1.487	1.060	.390/.560	.270/.470	1.156	1.500	.120	.750
22	1.3750-18UNEF	.625	.891	2.654	4.080	2.916	.750	1.487	1.060	.390/.560	.270/.470	1.250	1.625	.120	.750
24	1.5000-18UNEF	.625	.953	2.885	4.142	3.051	.812	1.712	1.060	.390/.560	.270/.470	1.375	1.750	.147	.938
28	1.7500-18UNS	.625	.953	2.885	4.291	3.140	.812	1.712	1.300	.510/.710	.350/.630	1.562	2.000	.147	.938
32	2.0000-18UNS	.625	1.031	2.943	4.643	3.184	.875	2.063	1.650	.700/.980	.510/.790	1.750	2.250	.173	1.250
36	2.2500-16UN	.625	1.031	2.943	4.643	3.245	.875	2.283	1.650	.700/.980	.510/.790	1.938	2.500	.173	1.375
40	2.5000-16UN	.625	1.031	3.068	5.635	3.670	.875	2.688	1.650	.700/.980	.510/.790	2.188	2.750	.173	1.625

Millimeters

Shell Size	B Min Full Thread	K +.51 -.25	L Max	L ¹ Max	L ² Max	M +.25 -.00	P Max	P ¹ Hex Flats Ref	PGA Ref	PGR Ref	R ±.13	S ±.25	T Dia +.10 -.05	X Max O.D. Cable
10SL	9.93	17.07	54.08	76.45	55.60	14.28	22.71	19.05	3.81/8.13	1.78/6.10	18.26	25.40	3.05	7.93
12S	11.43	17.07	54.08	76.45	57.43	14.28	22.71	19.05	3.81/8.13	1.78/6.10	20.63	27.79	3.05	7.93
12	15.88	21.84	64.11	88.90	67.16	19.05	22.71	19.05	3.81/8.13	1.78/6.10	20.63	27.79	3.05	7.93
14S	11.43	17.07	55.91	80.98	57.43	14.28	27.51	22.35	4.83/9.91	2.79/7.11	23.01	30.18	3.05	11.13
14	15.88	21.84	64.11	92.48	67.16	19.05	27.51	22.35	4.83/9.91	2.79/7.11	23.01	30.18	3.05	11.13
16S	11.43	17.07	55.91	82.93	57.56	14.28	30.00	23.88	5.84/11.94	4.83/8.89	24.61	32.54	3.05	13.49
16	15.88	21.84	64.11	94.44	67.16	19.05	30.00	23.88	5.84/11.94	4.83/8.89	24.61	32.54	3.05	13.49
18	15.88	22.63	65.94	94.44	68.99	19.05	33.02	23.88	5.84/11.94	4.83/8.89	27.00	34.93	3.05	15.88
20	15.88	22.63	67.41	96.47	70.46	19.05	37.77	26.92	9.91/14.22	6.86/11.94	29.36	38.10	3.05	19.05
22	15.88	22.63	67.41	103.63	74.07	19.05	37.77	26.92	9.91/14.22	6.86/11.94	31.75	41.28	3.05	19.05
24	15.88	24.21	73.28	105.21	77.50	20.63	43.49	26.92	9.91/14.22	6.86/11.94	34.93	44.45	3.73	23.83
28	15.88	24.21	73.28	108.99	79.76	20.63	43.49	33.02	12.95/18.03	8.89/16.00	39.68	50.80	3.73	23.83
32	15.88	26.19	74.75	117.93	80.87	22.23	52.40	41.91	17.78/24.89	12.95/20.07	44.45	57.15	4.39	31.75
36	15.88	26.19	74.75	117.93	82.42	22.23	57.99	41.91	17.78/24.89	12.95/20.07	49.23	63.50	4.39	34.93
40	15.88	26.19	77.93	143.13	93.22	22.23	68.28	41.91	17.78/24.89	12.95/20.07	55.58	69.85	4.39	41.28

All dimensions for reference only.

AC Threaded line receptacle



* To complete order number, see how to order, page 59.

Inches

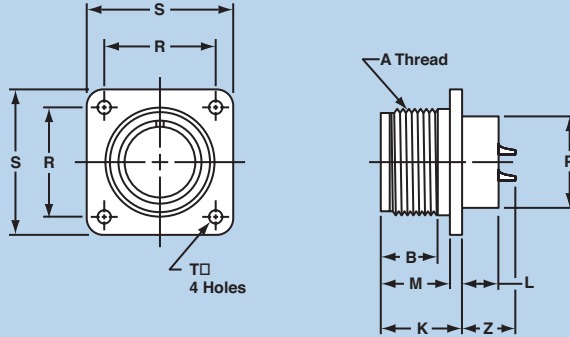
Shell Size	A Thread Class 2 A	B Min Full Thread	L Max	L¹ Max	L² Max	P Max	P¹ HexFlats Ref	PGA Ref	PGR Ref	X Max O.D. Cable
10SL	.6250-24UNEF	.406	2.129	3.010	2.189	.894	.750	.150/.320	.070/.240	.312
12S	.7500-20UNEF	.422	2.129	3.010	2.261	.894	.750	.150/.320	.070/.240	.312
12	.7500-20UNEF	.656	2.524	3.500	2.644	.894	.750	.150/.320	.070/.240	.312
14S	.8750-20UNEF	.391	2.201	3.188	2.261	1.083	.880	.190/.390	.110/.280	.438
14	.8750-20UNEF	.625	2.524	3.641	2.644	1.083	.880	.190/.390	.110/.280	.438
16S	1.0000-20UNEF	.391	2.201	3.265	2.266	1.181	.940	.230/.470	.190/.350	.531
16	1.0000-20UNEF	.625	2.524	3.718	2.644	1.181	.940	.230/.470	.190/.350	.531
18	1.1250-18UNEF	.625	2.596	3.718	2.716	1.300	.940	.230/.470	.190/.350	.625
20	1.2500-18UNEF	.625	2.654	3.798	2.774	1.487	1.060	.390/.560	.270/.470	.750
22	1.3750-18UNEF	.625	2.654	4.080	2.916	1.487	1.060	.390/.560	.270/.470	.750
24	1.5000-18UNEF	.625	2.885	4.142	3.051	1.712	1.060	.390/.560	.270/.470	.938
28	1.7500-18UNS	.625	2.885	4.291	3.140	1.712	1.300	.510/.710	.350/.630	.938
32	2.0000-18UNS	.625	2.943	4.643	3.184	2.063	1.650	.700/.980	.510/.790	1.250
36	2.2500-16UN	.625	2.943	4.643	3.245	2.283	1.650	.700/.980	.510/.790	1.375
40	2.5000-16UN	.625	3.068	5.635	3.670	2.688	1.650	.700/.980	.510/.790	1.625

Millimeters

Shell Size	B Min Full Thread	L Max	L¹ Max	L² Max	P Max	P¹ Hex Flats Ref	PGA Ref	PGR Ref	X Max O.D. Cable
10SL	10.31	54.08	76.45	55.60	22.71	19.05	3.81/8.13	1.78/6.10	7.93
12S	10.72	54.08	76.45	57.43	22.71	19.05	3.81/8.13	1.78/6.10	7.93
12	16.66	64.11	88.90	67.16	22.71	19.05	3.81/8.13	1.78/6.10	7.93
14S	9.93	55.91	80.98	57.43	27.51	22.35	4.83/9.91	2.79/7.11	11.13
14	15.88	64.11	92.48	67.16	27.51	22.35	4.83/9.91	2.79/7.11	11.13
16S	9.93	55.91	82.93	57.56	30.00	23.88	5.84/11.94	4.83/8.89	13.49
16	15.88	64.11	94.44	67.16	30.00	23.88	5.84/11.94	4.83/8.89	13.49
18	15.88	65.94	94.44	68.99	33.02	23.88	5.84/11.94	4.83/8.89	15.88
20	15.88	67.41	96.47	70.46	37.77	26.92	9.91/14.22	6.86/11.94	19.05
22	15.88	67.41	103.63	74.07	37.77	26.92	9.91/14.22	6.86/11.94	19.05
24	15.88	73.28	105.21	77.50	43.49	26.92	9.91/14.22	6.86/11.94	23.83
28	15.88	73.28	108.99	79.76	43.49	33.02	12.95/18.03	8.89/16.00	23.83
32	15.88	74.75	117.93	80.87	52.40	41.91	17.78/24.89	12.95/20.07	31.75
36	15.88	74.75	117.93	82.42	57.99	41.91	17.78/24.89	12.95/20.07	34.93
40	15.88	77.93	143.13	93.22	68.28	41.91	17.78/24.89	12.95/20.07	41.28

All dimensions for reference only.

AC Threaded box mounting receptacle



AC ()02A*□
AC ()02E*

* To complete order number, see how to order, page 59.

Inches

Shell Size	A Thread Class 2 A	B Min Full Thread	K +.020 -010	L +.000 -010	M +.010 -000	P Dia +.010 -000	R ±.005	S ±.031	T Dia +.004 -002	Z Max**
8S	.5000-28UNEF	.391	.672	.297	.562	.375	.594	.875	.120	.519
10S	.6250-24NEF	.391	.672	.297	.562	.500	.719	1.000	.120	.519
10SL	.6250-24NEF	.391	.672	.297	.562	.625	.719	1.000	.120	.519
12S	.7500-20UNEF	.450	.672	.297	.562	.625	.812	1.094	.120	.519
12	.7500-20UNEF	.625	.860	.484	.750	.625	.812	1.094	.120	.722
14S	.8750-20UNEF	.450	.672	.297	.562	.750	.906	1.188	.120	.519
14	.8750-20UNEF	.625	.860	.484	.750	.750	.906	1.188	.120	.722
16S	1.0000-20UNEF	.450	.672	.297	.562	.875	.969	1.281	.120	.519
16	1.0000-20UNEF	.625	.860	.484	.750	.875	.969	1.281	.120	.722
18	1.1250-18NEF	.625	.891	.453	.750	1.000	1.062	1.375	.120	.691
20	1.2500-18NEF	.625	.891	.453	.750	1.125	1.156	1.500	.120	.691
22	1.3750-18NEF	.625	.891	.453	.750	1.250	1.250	1.625	.120	.691
24	1.5000-18NEF	.625	.953	.453	.812	1.375	1.375	1.750	.147	.628
28	1.7500-18NS	.625	.953	.453	.812	1.625	1.562	2.000	.147	.628
32	2.0000-18NS	.625	1.031	.438	.875	1.875	1.750	2.250	.173	.550
36	2.2500-16UN	.625	1.031	.438	.875	2.062	1.938	2.500	.173	.550
40	2.5000-16UN	.625	1.031	.438	.875	2.312	2.188	2.750	.173	.550

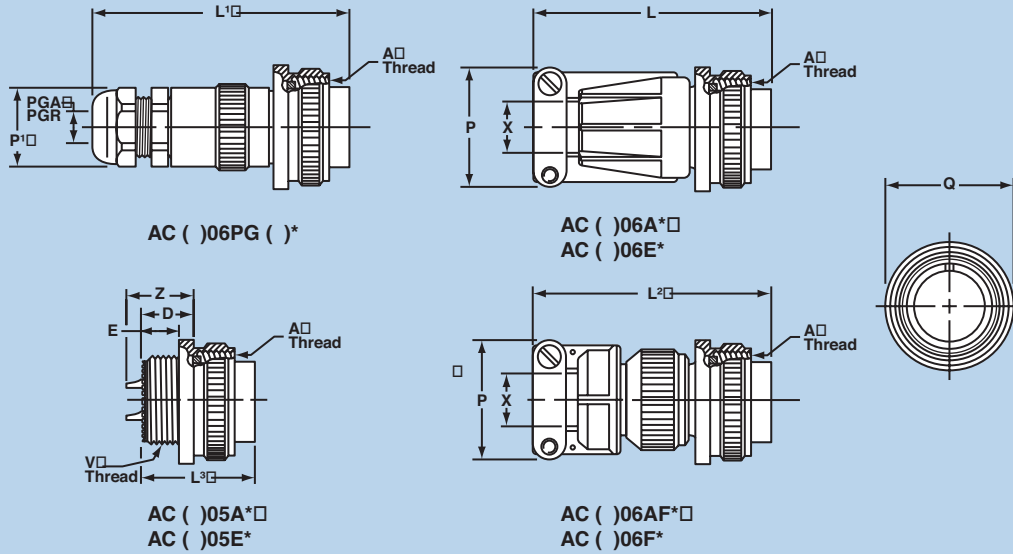
Millimeters

Shell Size	B Min Full Thread	K +.51 -025	L +.00 -025	M +.25 -00	P Dia +.25 -00	R ±.13	S ±.79	T Dia +.10 -05	Z Max**
8S	9.93	17.07	7.54	14.28	9.53	15.09	22.23	3.05	13.18
10S	9.93	17.07	7.54	14.28	12.70	18.26	25.40	3.05	13.18
10SL	9.93	17.07	7.54	14.28	15.88	18.26	25.40	3.05	13.18
12S	11.43	17.07	7.54	14.28	15.88	20.63	27.79	3.05	13.18
12	15.88	21.84	12.29	19.05	15.88	20.63	27.79	3.05	18.34
14S	11.43	17.07	7.54	14.28	19.05	23.01	30.18	3.05	13.18
14	15.88	21.84	12.29	19.05	19.05	23.01	30.18	3.05	18.34
16S	11.43	17.07	7.54	14.28	22.23	24.61	32.54	3.05	13.18
16	15.88	21.84	12.29	19.05	22.23	24.61	32.54	3.05	18.34
18	15.88	22.63	11.51	19.05	25.40	26.98	34.93	3.05	17.55
20	15.88	22.63	11.51	19.05	28.58	29.36	38.10	3.05	17.55
22	15.88	22.63	11.51	19.05	31.75	31.75	41.28	3.05	17.55
24	15.88	24.21	11.51	20.63	34.93	34.93	44.45	3.73	15.95
28	15.88	24.21	11.51	20.63	41.28	39.68	50.80	3.73	15.95
32	15.88	26.19	11.13	22.23	47.63	44.45	57.15	4.39	13.97
36	15.88	26.19	11.13	22.23	52.38	49.23	63.50	4.39	13.97
40	15.88	26.19	11.13	22.23	58.73	55.58	69.85	4.39	13.97

** Increase Z dimension by .312 for size "0" contact only.

All dimensions for reference only.

AC Threaded straight plug



* To complete order number, see how to order, page 59.

Inches

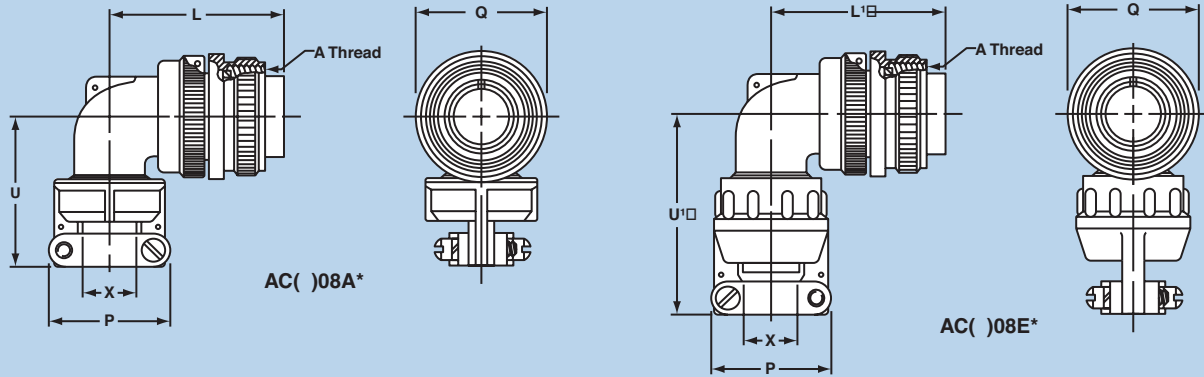
Shell Size	A Thread Class 2B	D ±.010	E +.020 -0.030	L Max	L' Max	L² Max	L³ Max	P Max	P' Hex Flats Ref	PGA Ref	PGR Ref	Q Max	V Thread Plated Class 2A	X Max O.D. Cable	Z ±.045
10SL	.6250-24UNEF	.438	.298	2.129	3.010	2.189	.989	.894	.750	.150/.320	.070/.240	.946	.6250-24UNEF	.312	.562
12S	.7500-20UNEF	.438	.312	2.129	3.010	2.261	.989	.894	.750	.150/.320	.070/.240	.995	.6250-24UNEF	.312	.562
12	.7500-20UNEF	.625	.469	2.524	3.500	2.644	1.364	.894	.750	.150/.320	.070/.240	.995	.6250-24UNEF	.312	.812
14S	.8750-20UNEF	.438	.312	2.201	3.188	2.261	.989	1.083	.880	.190/.390	.110/.280	1.123	.7500-20UNEF	.438	.562
14	.8750-20UNEF	.625	.469	2.524	3.641	2.644	1.364	1.083	.880	.190/.390	.110/.280	1.123	.7500-20UNEF	.438	.812
16S	1.0000-20UNEF	.438	.312	2.201	3.265	2.266	.989	1.181	.940	.230/.470	.190/.350	1.250	.8750-20UNEF	.531	.562
16	1.0000-20UNEF	.625	.469	2.524	3.718	2.644	1.364	1.181	.940	.230/.470	.190/.350	1.250	.8750-20UNEF	.531	.812
18	1.1250-18UNEF	.625	.469	2.596	3.718	2.716	1.364	1.300	.940	.230/.470	.190/.350	1.333	1.0000-20UNEF	.625	.812
20	1.2500-18UNEF	.625	.469	2.654	3.798	2.774	1.364	1.487	1.060	.390/.560	.270/.470	1.461	1.1250-18UNEF	.750	.812
22	1.3750-18UNEF	.625	.469	2.654	4.080	2.916	1.364	1.487	1.060	.390/.560	.270/.470	1.588	1.2500-18UNEF	.750	.812
24	1.5000-18UNEF	.688	.469	2.885	4.142	3.051	1.427	1.712	1.060	.390/.560	.270/.470	1.715	1.3750-18UNEF	.938	.812
28	1.7500-18UNS	.688	.469	2.885	4.291	3.140	1.427	1.712	1.300	.510/.710	.350/.630	1.968	1.6250-18UNEF	.938	.812
32	2.0000-18UNS	.750	.469	2.943	4.643	3.184	1.489	2.063	1.650	.700/.980	.510/.790	2.209	1.8750-16UN	1.250	.812
36	2.2500-16UN	.750	.469	2.943	4.643	3.245	1.489	2.283	1.650	.700/.980	.510/.790	2.463	2.0625-16UN	1.375	.812
40	2.5000-16UN	.750	.469	3.068	5.635	3.670	1.489	2.688	1.650	.700/.980	.510/.790	2.718	2.3125-16UN	1.625	.812

Millimeters

Shell Size	D ±.25	E +.51 -0.76	L Max	L' Max	L² Max	L³ Max	P Max	P' Hex Flats Ref	PGA Ref	PGR Ref	Q Max	X Max O.D. Cable	Z ±1.14
10SL	11.13	7.57	54.08	76.45	55.60	25.12	22.71	19.05	3.81/8.13	1.78/6.10	24.03	7.93	14.28
12S	11.13	7.93	54.08	76.45	57.43	25.12	22.71	19.05	3.81/8.13	1.78/6.10	25.27	7.93	14.28
12	15.88	11.91	64.11	88.90	67.16	34.65	22.71	19.05	3.81/8.13	1.78/6.10	25.27	7.93	20.63
14S	11.13	7.93	55.91	80.98	57.43	25.12	27.51	22.35	4.83/9.91	2.79/7.11	28.52	11.13	14.28
14	15.88	11.91	64.11	92.48	67.16	34.65	27.51	22.35	4.83/9.91	2.79/7.11	28.52	11.13	20.63
16S	11.13	7.93	55.91	82.93	57.56	25.12	30.00	23.88	5.84/11.94	4.83/8.89	31.75	13.49	14.28
16	15.88	11.91	64.11	94.44	67.16	34.65	30.00	23.88	5.84/11.94	4.83/8.89	31.75	13.49	20.63
18	15.88	11.91	65.94	94.44	68.99	34.65	33.02	23.88	5.84/11.94	4.83/8.89	33.86	15.88	20.63
20	15.88	11.91	67.41	96.47	70.46	34.65	37.77	26.92	9.91/14.22	6.86/11.94	37.11	19.05	20.63
22	15.88	11.91	67.41	103.63	74.07	34.65	37.77	26.92	9.91/14.22	6.86/11.94	40.34	19.05	20.63
24	17.48	11.91	73.28	105.21	77.50	36.25	43.49	26.92	9.91/14.22	6.86/11.94	43.56	23.83	20.63
28	17.48	11.91	73.28	108.99	79.76	36.25	43.49	33.02	12.95/18.03	8.89/16.00	49.99	23.83	20.63
32	19.05	11.91	74.75	117.93	80.87	37.82	52.40	41.91	17.78/24.89	12.95/20.07	56.11	31.75	20.63
36	19.05	11.91	74.75	117.93	82.42	37.82	57.99	41.91	17.78/24.89	12.95/20.07	62.56	34.93	20.63
40	19.05	11.91	77.93	143.13	93.22	37.82	68.28	41.91	17.78/24.89	12.95/20.07	69.04	41.28	20.63

All dimensions for reference only.

AC Threaded 90 degree plug



* To complete order number, see how to order, page 59.

Inches

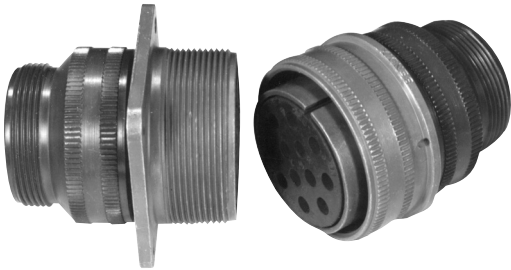
Shell Size	A Thread Class 2B	L Max	L' Max	P Max	Q Dia Max	U Max	U' Max	X Max O.D. Cable
10SL	.6250-24NEF	1.492	1.492	.906	.946	1.305	1.812	.312
12S	.7500-20UNEF	1.492	1.492	.906	.995	1.305	1.812	.312
12	.7500-20UNEF	1.867	1.867	.906	.995	1.305	1.812	.312
14S	.8750-20UNEF	1.556	1.556	1.031	1.123	1.485	1.875	.438
14	.8750-20UNEF	1.931	1.931	1.031	1.123	1.485	1.875	.438
16S	1.0000-20UNEF	1.682	1.682	1.125	1.250	1.612	1.937	.531
16	1.0000-20UNEF	2.057	2.057	1.125	1.250	1.612	1.937	.531
18	1.1250-18NEF	2.119	2.119	1.234	1.333	1.738	2.109	.625
20	1.2500-18NEF	2.369	2.322	1.484	1.461	1.800	2.187	.750
22	1.3750-18NEF	2.369	2.322	1.484	1.588	1.862	2.250	.750
24	1.5000-18NEF	2.620	2.510	1.683	1.715	2.100	2.484	.938
28	1.7500-18NS	2.620	2.510	1.683	1.968	2.162	2.546	.938
32	2.0000-18NS	2.842	2.744	2.188	2.209	2.405	3.045	1.250
36	2.2500-16UN	2.900	2.869	2.344	2.463	2.536	3.218	1.375
40	2.5000-16UN	3.025	2.994	2.688	2.719	3.206	3.375	1.625

Millimeters

Shell Size	L Max	L' Max	P Max	Q Dia Max	U Max	U' Max	X Max O.D. Cable
10SL	37.90	37.90	23.01	24.03	33.15	46.03	7.93
12S	37.90	37.90	23.01	25.27	33.15	46.03	7.93
12	47.42	47.42	23.01	25.27	33.15	46.03	7.93
14S	39.52	39.52	26.19	28.52	37.72	47.63	11.13
14	49.05	49.05	26.19	28.52	37.72	47.63	11.13
16S	42.72	42.72	28.58	31.75	40.95	49.20	13.49
16	52.25	52.25	28.58	31.75	40.95	49.20	13.49
18	53.82	53.82	31.34	33.86	44.15	53.57	15.88
20	60.17	58.98	37.69	37.11	45.72	55.55	19.05
22	60.17	58.98	37.69	40.34	47.30	57.15	19.05
24	66.55	63.75	42.75	43.56	53.34	63.09	23.83
28	66.55	63.75	42.75	49.99	54.92	64.67	23.83
32	72.19	69.70	55.58	56.11	61.09	77.34	31.75
36	73.66	72.87	59.54	62.56	64.41	81.74	34.93
40	76.84	76.05	68.28	69.06	81.43	85.73	41.28

All dimensions for reference only.

Amphenol SAE AS50151 Standard Cylindrical Connectors



MS-A, MS-C



MS-E/F



MS-R

DESIGN CHARACTERISTICS

- Medium to heavy weight cylindrical
- Durable, field-proven design
- Environmental resistant
- Resilient inserts
- Operating voltage to 3000 VAC (RMS) at sea level
- Threaded couplings
- Single key/keyway shell polarization

CUSTOMER OPTIONS

- Five shell styles
- Nineteen shell sizes
- 305 contact arrangements from 1 to 104 circuits
- Solder or crimp contacts, sizes 16-0 accepting 22-0 AWG.
- Five class designations
- Alternate insert positioning
- Hermetic configurations available

MS connectors meet the latest performance requirements of SAE AS50151. These connectors represent well-proven electrical capability at an acceptable cost for most equipment where durability is important.

SAE AS50151 features threaded couplings and single key/keyway polarization, representing maximum simplicity in design. Applications include military ground support equipment, ordnance and shipboard installations.

Amphenol Industrial Operations manufactures five classes of connectors to meet different requirements. Class designations and brief descriptions are listed below.

A – Solid Shell – for general, non-environmental applications.

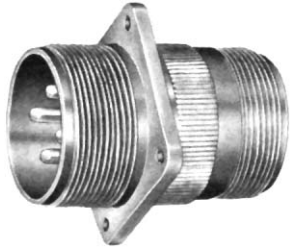
C – Pressurized – for use on pressurized bulkheads or pressure barriers; limits air leakage regardless of type and class of plug mated with them.

E/F –Environmental Resisting with Strain Relief – designed for applications where the connector will be exposed to moisture, vibration, and rapid changes 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.

Environmental Classes F and R are updated to and produced in strict accordance to SAE AS50151. Classes A, C and E are still produced, but are no longer listed on the qualified products database (QPD).

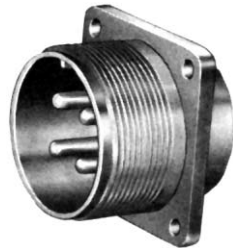
MS/Standard MS-A and MS-C



wall mounting receptacle



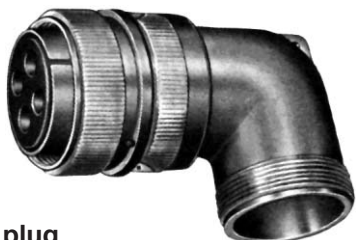
inline receptacle



box mounting receptacle



straight plug



90 degree plug

MS-A and MS-C

MS-A and MS-C 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 extreme or rapid environmental changes.

Class C connectors are most frequently used on pressurized bulkheads or pressure barriers at elevated altitudes or maritime applications. Air leakage is limited to one cubic inch per hour at a pressure differential of 30 lbs. per square inch.

Shells:

Shell components are fabricated from high grade aluminum alloy. Electrically conductive cadmium plate finish with an olive drab chromate after-treat offers corrosion resistance.

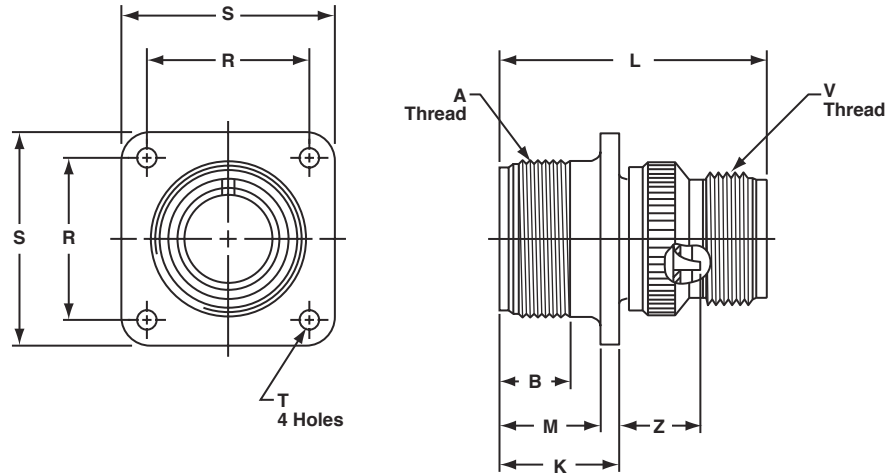
Contacts:

Contacts are solder with pre-filled solder cups. Pins and sockets are machined from copper alloy with a silver plated finish. Size 16 and 12 socket contacts incorporate a closed entry design. Refer to page 54 for additional contact information.

Inserts:

Inserts are resilient neoprene, offering high dielectric strength, high arc resistance and resistance to vibration.

MS/Standard MS3100A or C wall mounting receptacle



To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min Full Thread	K $+0.020$ -0.010	L ± 0.030	M $+0.010$ -0.000	R ± 0.005	S ± 0.031	T Dia. $+0.004$ -0.002	V Thread Class 2A	Z $+0.050$ -0.060
8S	.5000-28UNEF	.391	.672	1.391	.562	.594	.875	.120	.5000-28UNEF	.422
10S	.6250-24 UNF	.391	.672	1.468	.562	.719	1.000	.120	.5000-28UNEF	.422
10SL	.6250-24 UNF	.391	.672	1.468	.562	.719	1.000	.120	.6250-24NEF	.422
12S	.7500-20UNEF	.450	.672	1.468	.562	.812	1.094	.120	.6250-24NEF	.422
12	.7500-20UNEF	.625	.860	1.843	.750	.812	1.094	.120	.6250-24NEF	.672
14S	.8750-20UNEF	.450	.672	1.468	.562	.906	1.188	.120	.7500-20UNEF	.422
14	.8750-20UNEF	.625	.860	1.843	.750	.906	1.188	.120	.7500-20UNEF	.672
16S	1.0000-20UNEF	.450	.672	1.468	.562	.969	1.281	.120	.8750-20UNEF	.422
16	1.0000-20UNEF	.625	.860	1.843	.750	.969	1.281	.120	.8750-20UNEF	.672
18	1.1250-18NEF	.625	.891	1.938	.750	1.063	1.375	.120	1.0000-20UNEF	.641*
20	1.2500-18NEF	.625	.891	1.844	.750	1.156	1.500	.120	1.1875-18NEF	.641*
22	1.3750-18NEF	.625	.891	1.938	.750	1.250	1.625	.120	1.1875-18NEF	.641*
24	1.5000-18NEF	.625	.953	1.969	.812	1.375	1.750	.147	1.4375-18NEF	.578*
28	1.7500-18NS	.625	.953	2.188	.812	1.562	2.000	.147	1.4375-18NEF	.578*
32	2.0000-18NS	.625	1.031	2.157	.875	1.750	2.250	.173	1.7500-18NS	.500*
36	2.2500-16UN	.625	1.031	2.219	.875	1.938	2.500	.173	2.0000-18NS	.500*
40	2.5000-16UN	.625	1.031	2.188	.875	2.188	2.750	.173	2.2500-16UN	.500*
44***	2.7500-16UN	.625	1.031†	2.547	.875	2.375	3.000††	.173	2.5000-16UN	.751**
48***	3.0000-16UN	.625	1.031†	2.547	.875	2.625	3.000††	.173	3.0000-16UN	.751**

* Increase Z dimension by .312 for size "0" contact only.

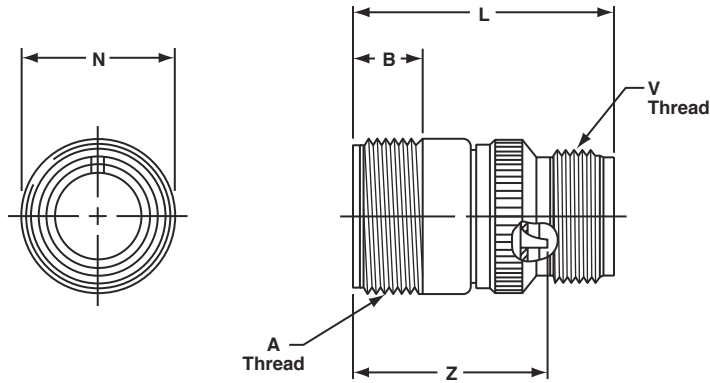
** Increase Z dimension by .062 for size "0" contact only.

*** Available in proprietary version only.

† $+0.020$ -0.030

†† ± 0.020

MS/Standard MS3101A inline receptacle

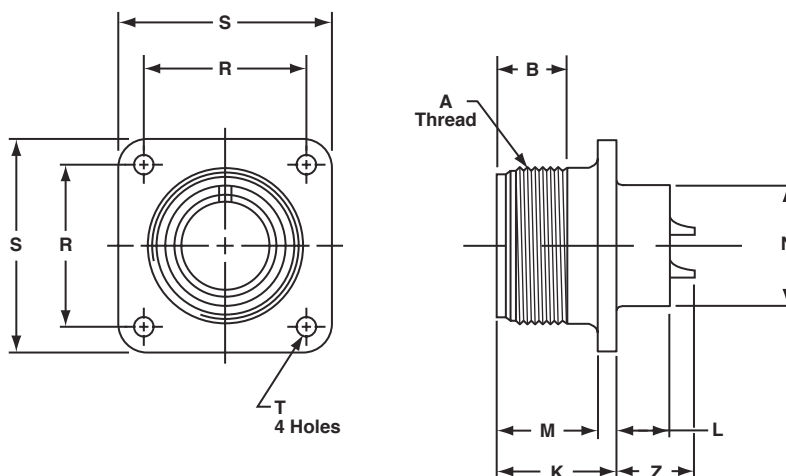


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min. Full Thread	L $\pm.030$	N Dia. Max.	V Thread Class 2A	Z $\pm.040$
8S	.5000-28UNEF	.406	1.390	.532	.5000-28UNEF	1.094
10S	.6250-24NEF	.406	1.468	.628	.5000-28UNEF	1.094
10SL	.6250-24NEF	.406	1.468	.755	.6250-24NEF	1.094
12S	.7500-20UNEF	.422	1.468	.755	.6250-24NEF	1.094
12	.7500-20UNEF	.656	1.843	.755	.6250-24NEF	1.532
14S	.8750-20UNEF	.391	1.468	.882	.7500-20UNEF	1.094
14	.8750-20UNEF	.625	1.843	.882	.7500-20UNEF	1.532
16S	1.0000-20UNEF	.391	1.468	1.010	.8750-20UNEF	1.094
16	1.0000-20UNEF	.625	1.843	1.010	.8750-20UNEF	1.532
18	1.1250-18NEF	.625	1.938	1.137	1.0000-20UNEF	1.532*
20	1.2500-18NEF	.625	1.844	1.264	1.1875-18NEF	1.532*
22	1.3750-18NEF	.625	1.938	1.392	1.1875-18NEF	1.532*
24	1.5000-18NEF	.625	1.969	1.519	1.4375-18NEF	1.532*
28	1.7500-18NS	.625	2.188	1.774	1.4375-18NEF	1.532*
32	2.0000-18NS	.625	2.157	1.996	1.7500-18NS	1.532*
36	2.2500-16UN	.625	2.219	2.251	2.0000-18NS	1.532*
40	2.5000-16UN	.625	2.188	2.506	2.2500-16UN	1.532*
44***	2.7500-16UN	.625	2.521	3.135	2.5000-16UN	1.782**

* Increase Z dimension by .312 for size "0" contact only.
** Increase Z dimension by .062 for size "0" contact only.
*** Available in proprietary version only.

MS/Standard MS3102A or C box mounting receptacle



To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min Full Thread	K +.020 - .010	L +.000 - .010	M +.010 - .000	N Dia. +.010 - .000	R ±.005	S ±.031	T Dia. +.004 - .002	Z +.050 - .060
8S	.5000-28UNEF	.391	.672	.297	.562	.375	.594	.875	.120	.422
10S	.6250-24NEF	.391	.672	.297	.562	.500	.719	1.000	.120	.422
10SL	.6250-24NEF	.391	.672	.297	.562	.625	.719	1.000	.120	.422
12S	.7500-20UNEF	.450	.672	.297	.562	.625	.812	1.094	.120	.422
12	.7500-20UNEF	.625	.860	.484	.750	.625	.812	1.094	.120	.672
14S	.8750-20UNEF	.450	.672	.297	.562	.750	.906	1.188	.120	.422
14	.8750-20UNEF	.625	.860	.484	.750	.750	.906	1.188	.120	.672
16S	1.0000-20UNEF	.450	.672	.297	.562	.875	.969	1.281	.120	.422
16	1.0000-20UNEF	.625	.860	.484	.750	.875	.969	1.281	.120	.672
18	1.1250-18NEF	.625	.891	.453	.750	1.000	1.062	1.375	.120	.641*
20	1.2500-18NEF	.625	.891	.453	.750	1.125	1.156	1.500	.120	.641*
22	1.3750-18NEF	.625	.891	.453	.750	1.250	1.250	1.625	.120	.641*
24	1.5000-18NEF	.625	.953	.453	.812	1.375	1.375	1.750	.147	.578
28	1.7500-18NS	.625	.953	.453	.812	1.625	1.562	2.000	.147	.578*
32	2.0000-18NS	.625	1.031	.438	.875	1.875	1.750	2.250	.173	.500*
36	2.2500-16UN	.625	1.031	.438	.875	2.062	1.938	2.500	.173	.500*
40	2.5000-16UN	.625	1.031	.438	.875	2.312	2.188	2.750	.173	.500*
44***	2.7500-16UN	.625	1.063	.543†	.875	2.594	2.375	3.000††	.173	.768**
48***	3.0000-16UN	.625	1.063	.543†	.875	2.812	2.625	3.250††	.209	.769**

* Increase Z dimension by .312 for size "0" contact only.

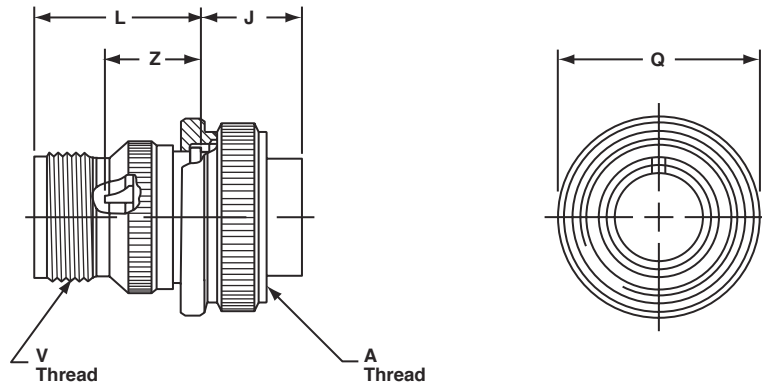
** Increase Z dimension by .062 for size "0" contact only.

*** Available in proprietary version only.

† +.020 -.030

†† ±.020

MS/Standard MS3106A straight plug

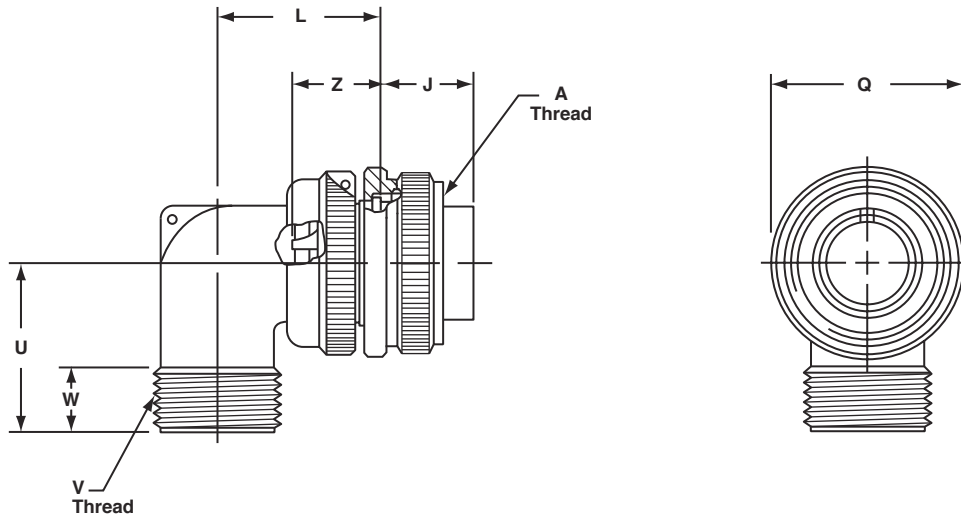


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.
All lockwire holes are .045 dia. min.

Shell Size	A Thread Class 2B	J ±.005	L ±.030	Q Dia. Max.	V Thread Class 2A	Z ±.045
8S	.5000-28UNEF	.531	.859	.741	.5000-28UNEF	.562
10S	.6250-24NEF	.531	.937	.869	.5000-28UNEF	.562
10SL	.6250-24NEF	.531	.937	.946	.6250-24NEF	.562
12S	.7500-20UNEF	.531	.937	.995	.6250-24NEF	.562
12	.7500-20UNEF	.719	1.124	.995	.6250-24NEF	.812
14S	.8750-20UNEF	.531	.937	1.123	.7500-20UNEF	.562
14	.8750-20UNEF	.719	1.124	1.123	.7500-20UNEF	.812
16S	1.0000-20UNEF	.531	.937	1.250	.8750-20UNEF	.562
16	1.0000-20UNEF	.719	1.124	1.250	.8750-20UNEF	.812
18	1.1250-18NEF	.719	1.219	1.333	1.0000-20UNEF	.812*
20	1.2500-18NEF	.719	1.125	1.461	1.1875-18NEF	.812*
22	1.3750-18NEF	.719	1.219	1.588	1.1875-18NEF	.812*
24	1.5000-18NEF	.719	1.251	1.715	1.4375-18NEF	.812*
28	1.7500-18NS	.719	1.470	1.968	1.4375-18NEF	.812*
32	2.0000-18NS	.719	1.439	2.209	1.7500-18NS	.812*
36	2.2500-16UN	.719	1.500	2.463	2.0000-18NS	.812*
40	2.5000-16UN	.719	1.469	2.719	2.2500-16UN	.812*
44***	2.7500-16UN	.719	1.818†	3.084	2.5000-16UN	1.063**
48***	3.3000-16UN	.719	1.818†	3.354	3.0000-16UN	1.063**

* Increase Z dimension by .312 for size "0" contact only.
** Increase Z dimension by .062 for size "0" contact only.
*** Available in proprietary version only.
† +.020 -.030

MS/Standard MS3108A 90 degree plug



To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.
All lockwire holes are .045 dia. min.

Shell Size	A Thread Class 2B	J ±.005	L Max.	Q Dia. Max.	U Max.	V Thread Class 2A	W	Z ±.045
8S	.5000-28UNEF	.531	.896	.741	.750	.5000-28UNEF	.375	.562
10S	.6250-24NEF	.531	.927	.869	.750	.5000-28UNEF	.375	.562
10SL	.6250-24NEF	.531	.951	.946	.875	.6250-24NEF	.375	.562
12S	.7500-20UNEF	.531	.956	.995	.875	.6250-24NEF	.375	.562
12	.7500-20UNEF	.719	1.143	.995	.875	.6250-24NEF	.375	.812
14S	.8750-20UNEF	.531	1.120	1.123	1.000	.7500-20UNEF	.375	.562
14	.8750-20UNEF	.719	1.207	1.123	1.000	.7500-20UNEF	.375	.812
16S	1.0000-20UNEF	.531	1.146	1.250	1.062	.8750-20UNEF	.375	.562
16	1.0000-20UNEF	.719	1.332	1.250	1.062	.8750-20UNEF	.375	.812
18	1.1250-18NEF	.719	1.395	1.333	1.188	1.0000-20UNEF	.375	.812*
20	1.2500-18NEF	.719	1.645	1.461	1.250	1.1875-18NEF	.375	.812*
22	1.3750-18NEF	.719	1.645	1.588	1.312	1.1875-18NEF	.375	.812*
24	1.5000-18NEF	.719	1.896	1.715	1.438	1.4375-18NEF	.375	.812*
28	1.7500-18NS	.719	1.896	1.968	1.500	1.4375-18NEF	.375	.812*
32	2.0000-18NS	.719	2.118	2.209	1.750	1.7500-18NS	.438	.812*
36	2.2500-16UN	.719	2.176	2.463	1.875	2.0000-18NS	.500	.812*
40	2.5000-16UN	.719	2.301	2.719	2.031	2.2500-16UN	.500	.812*

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS-E/F



wall mounting receptacle



inline receptacle



box mounting receptacle



straight plug



90 degree plug

MS-E & F

MS Class F connectors satisfy all the performance requirements of SAE AS50151. Class E, environmental is also produced, but is no longer listed on the qualified products listing (QPL). These connectors are recommended for conditions where vibration, moisture, pressure and/or temperature are extreme. Strain relief is supplied on most shell sizes.

Shells:

Shell components are fabricated from high grade aluminum alloy. The standard hardware plating is electrically conductive cadmium plated finish with an olive drab chromate after-treatment for corrosion resistance.

Contacts:

Contacts are silver plated copper alloy for maximum corrosion resistance, maximum current carrying capacity and low millivolt drop. Size 16 and 12 socket contacts incorporate a closed entry design. Refer to page 54 for additional contact information.

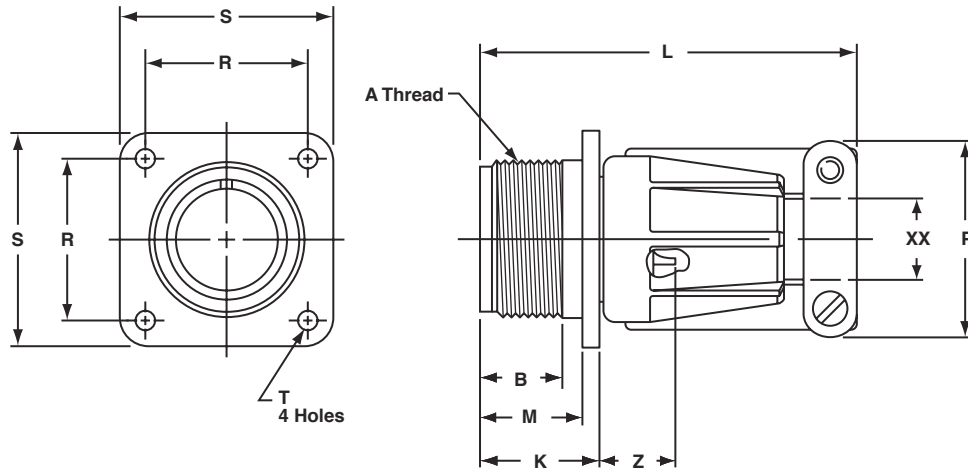
Inserts:

Resilient neoprene inserts provide an outstanding moisture barrier, high dielectric strength, and resistance to vibration. Either pin or socket insert can be pressurized.

Strain Relief Clamp:

Strain relief clamps minimize tension at the solder well connection and provide a positive mechanical moisture seal. Complete field serviceability is possible with the strain relief clamp.

MS/Standard MS3100E/F wall mounting receptacle

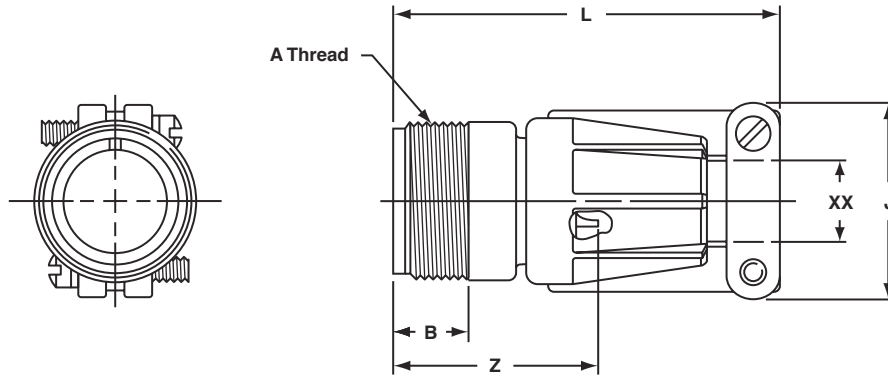


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min. Full Thread	K +.020 - .010	L Max.	M +.010 - .000	P Max.	R ±.005	S ±.010	T Dia. +.004 - .002	Z* Max.	XX Min. Cable Clearance
10SL	.6250-24UNEF	.391	.672	2.129	.562	.896	.719	1.000	.120	.472	.281
12S	.7500-20UNEF	.450	.672	2.129	.562	.896	.812	1.094	.120	.472	.281
12	.7500-20UNEF	.625	.860	2.129	.750	.896	.812	1.094	.120	.722	.281
14S	.8750-20UNEF	.450	.672	2.201	.562	1.021	.906	1.188	.120	.472	.406
14	.8750-20UNEF	.625	.860	2.524	.750	1.021	.906	1.188	.120	.722	.406
16S	1.0000-20UNEF	.450	.672	2.201	.562	1.151	.969	1.281	.120	.472	.500
16	1.0000-20UNEF	.625	.860	2.524	.750	1.151	.969	1.281	.120	.722	.500
18	1.1250-18UNEF	.625	.891	2.596	.750	1.242	1.063	1.375	.120	.691	.531
20	1.2500-18UNEF	.625	.891	2.654	.750	1.499	1.156	1.500	.120	.691	.656
22	1.3750-18UNEF	.625	.891	2.654	.750	1.499	1.250	1.625	.120	.691	.740
24	1.5000-18UNEF	.625	.953	2.885	.812	1.781	1.375	1.750	.147	.628	.781
28	1.7500-18UNS	.625	.953	2.885	.812	1.781	1.562	2.000	.147	.628	.922
32	2.0000-18UNS	.625	1.031	2.943	.875	2.087	1.750	2.250	.173	.550	1.156
36	2.2500-16UN	.625	1.031	2.943	.875	2.281	1.938	2.500	.173	.550	1.250
40	2.5000-16UN	.625	1.031	3.068	.875	2.581	2.188	2.750	.173	.550	1.562

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS3101E/F inline receptacle

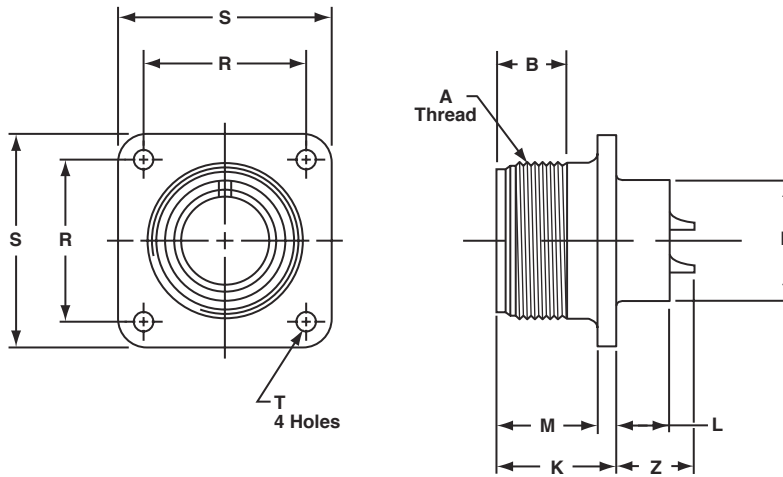


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min. Full Thread	J Max.	L Max.	Z* Max.	XX Min. Cable Clearance
10SL	.6250-24UNEF	.406	.896	2.129	1.134	.281
12S	.7500-20UNEF	.422	.896	2.129	1.134	.281
12	.7500-20UNEF	.656	.896	2.129	1.572	.281
14S	.8750-20UNEF	.391	1.021	2.201	1.134	.406
14	.8750-20UNEF	.625	1.021	2.524	1.572	.406
16S	1.0000-20UNEF	.391	1.151	2.201	1.134	.500
16	1.0000-20UNEF	.625	1.151	2.524	1.572	.500
18	1.1250-18UNEF	.625	1.242	2.596	1.572	.531
20	1.2500-18UNEF	.625	1.499	2.654	1.572	.656
22	1.3750-18UNEF	.625	1.499	2.654	1.572	.740
24	1.5000-18UNEF	.625	1.781	2.885	1.572	.781
28	1.7500-18UNS	.625	1.781	2.885	1.572	.922
32	2.0000-18UNS	.625	2.087	2.943	1.572	1.156
36	2.2500-16UN	.625	2.281	2.943	1.572	1.250
40	2.5000-16UN	.625	2.581	3.068	1.572	1.562

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS3102E box mounting receptacle

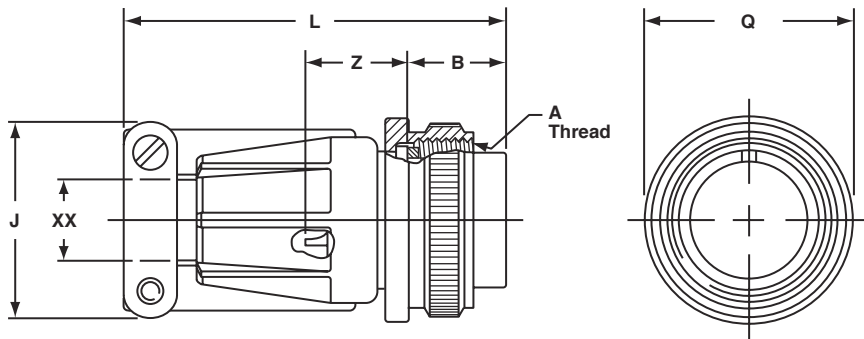


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min. Full Thread	K +.020 - .010	L +.000 - .010	M +.010 - .000	N Dia. +.010 - .000	R ±.005	S ±.031	T Dia. +.004 - .002	Z +.050 - .060
8S	.5000-28UNEF	.391	.672	.297	.562	.375	.594	.875	.120	.422
10S	.6250-24NEF	.391	.672	.297	.562	.500	.719	1.000	.120	.422
10SL	.6250-24NEF	.391	.672	.297	.562	.625	.719	1.000	.120	.422
12S	.7500-20UNEF	.450	.672	.297	.562	.625	.812	1.094	.120	.422
12	.7500-20UNEF	.625	.860	.484	.750	.625	.812	1.094	.120	.672
14S	.8750-20UNEF	.450	.672	.297	.562	.750	.906	1.188	.120	.422
14	.8750-20UNEF	.625	.860	.484	.750	.750	.906	1.188	.120	.672
16S	1.0000-20UNEF	.450	.672	.297	.562	.875	.969	1.281	.120	.422
16	1.0000-20UNEF	.625	.860	.484	.750	.875	.969	1.281	.120	.672
18	1.1250-18NEF	.625	.891	.453	.750	1.000	1.062	1.375	.120	.641*
20	1.2500-18NEF	.625	.891	.453	.750	1.125	1.156	1.500	.120	.641*
22	1.3750-18NEF	.625	.891	.453	.750	1.250	1.250	1.625	.120	.641*
24	1.5000-18NEF	.625	.953	.453	.812	1.375	1.375	1.750	.147	.578*
28	1.7500-18NS	.625	.953	.453	.812	1.625	1.562	2.000	.147	.578*
32	2.0000-18NS	.625	1.031	.438	.875	1.875	1.750	2.250	.173	.500*
36	2.2500-16UN	.625	1.031	.438	.875	2.062	1.938	2.500	.173	.500*
40	2.5000-16UN	.625	1.031	.438	.875	2.312	2.188	2.750	.173	.500*

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS3106E/F straight plug

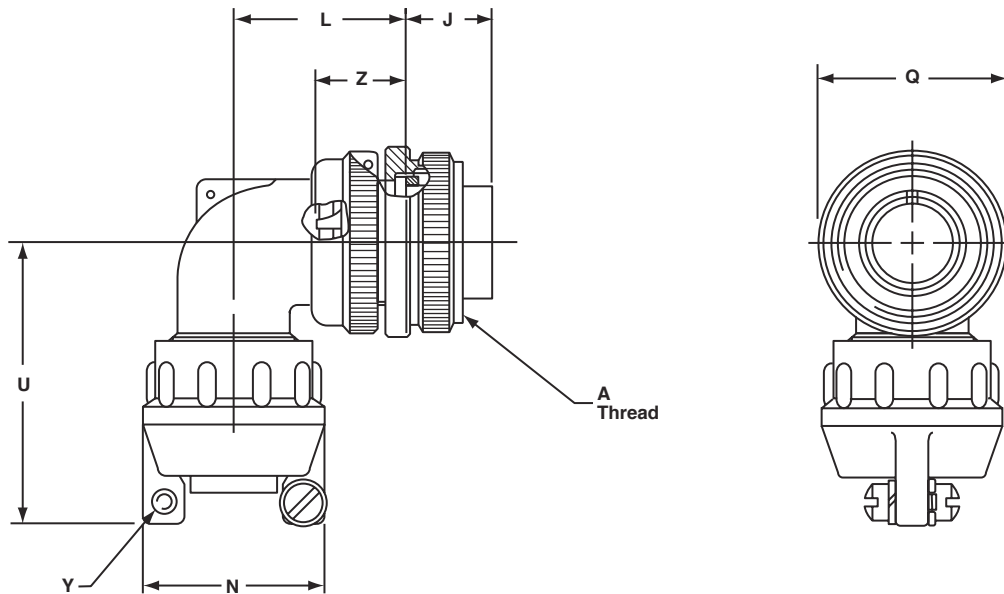


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.
All lockwire holes are .045 dia. min.

Shell Size	A Thread Class 2A	B ±.005	J Max.	L Max.	Q Max.	Z* ±.045	XX Min. Cable Clearance
10SL	.6250-24UNEF	.531	.896	2.129	.946	.607	.281
12S	.7500-20UNEF	.531	.896	2.129	.995	.607	.281
12	.7500-20UNEF	.719	.896	2.129	.995	.857	.281
14S	.8750-20UNEF	.531	1.021	2.201	1.123	.607	.406
14	.8750-20UNEF	.719	1.021	2.524	1.123	.857	.406
16S	1.0000-20UNEF	.531	1.151	2.201	1.250	.607	.500
16	1.0000-20UNEF	.719	1.151	2.524	1.250	.857	.500
18	1.1250-18UNEF	.719	1.242	2.596	1.333	.857	.531
20	1.2500-18UNEF	.719	1.499	2.654	1.461	.857	.656
22	1.3750-18UNEF	.719	1.499	2.654	1.588	.857	.740
24	1.5000-18UNEF	.719	1.781	2.885	1.715	.857	.781
28	1.7500-18UNS	.719	1.781	2.885	1.968	.857	.922
32	2.0000-18UNS	.719	2.087	2.943	2.209	.857	1.156
36	2.2500-16UN	.719	2.281	2.943	2.463	.857	1.250
40	2.5000-16UN	.719	2.581	3.068	2.718	.857	1.562

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS3108E 90 degree plug



To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.
All lockwire holes are .045 dia. min.

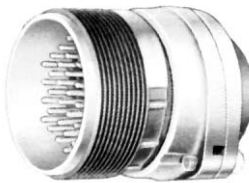
Shell Size	A Thread Class 2B	J $\pm.005$	L Max.	N Max.	Q Dia. Max.	U Max.	Y Thread Class 2B	Z $\pm.045$
8S	.5000-28UNEF	.531	.927	.807	.741	1.445	6-32NC	.562
10S	.6250-24NEF	.531	.927	.807	.869	1.445	6-32NC	.562
10SL	.6250-24NEF	.531	.951	.901	.946	1.508	6-32NC	.562
12S	.7500-20UNEF	.531	.956	.901	.995	1.508	6-32NC	.562
12	.7500-20UNEF	.719	1.143	.901	.995	1.508	6-32NC	.812
14S	.8750-20UNEF	.531	1.020	1.026	1.123	1.570	6-32NC	.562
14	.8750-20UNEF	.719	1.207	1.026	1.123	1.570	6-32NC	.812
16S	1.0000-20UNEF	.531	1.146	1.119	1.250	1.633	6-32NC	.562
16	1.1000-20UNEF	.719	1.333	1.119	1.250	1.633	6-32NC	.812
18	1.1250-18NEF	.719	1.395	1.229	1.333	1.759	6-32NC	.812*
20	1.2500-18NEF	.719	1.598	1.479	1.461	1.931	8-32NC	.812*
22	1.3750-18NEF	.719	1.598	1.479	1.588	1.993	8-32NC	.812*
24	1.5000-18NEF	.719	1.786	1.666	1.729	2.119	8-32NC	.812*
28	1.7500-18NS	.719	1.786	1.666	1.968	2.181	8-32NC	.812*
32	2.0000-18NS	.719	2.020	2.135	2.209	2.570	10-32NF	.812*
36	2.2500-16UN	.719	2.145	2.260	2.463	2.695	10-32NF	.812*
40	2.5000-16UN	.719	2.270	2.510	2.719	2.851	10-32NF	.812*

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS-R



wall mounting receptacle



inline receptacle



box mounting receptacle



straight plug

MS-R

Specification requirements for greater reliability in a shorter, lighter weight environmental resistant connector led to the design of the MS-R. MS Class R connectors satisfy all the performance requirements of SAE AS50151.

This low profile assembly was attained by moving the axial compression nut and grommet assembly forward and flush with the rear of the insert. The neoprene grommet, with its low coefficient of friction, assures easier threading of wire bundles and quicker assembly and serviceability of the unit. Molded webs in each wire hole insure a moisture barrier around each wire.

The addition of an "O" ring at the main joint of all MS3106R plugs provide a main joint seal supplementary to the interfacial seal, thus insuring a higher degree of reliability when connector halves from different sources are employed.

Shells:

Shell components are fabricated from high grade aluminum alloy. All components have the standard electrically conductive cadmium plated finish with an olive drab chromate after-treatment for corrosion resistance.

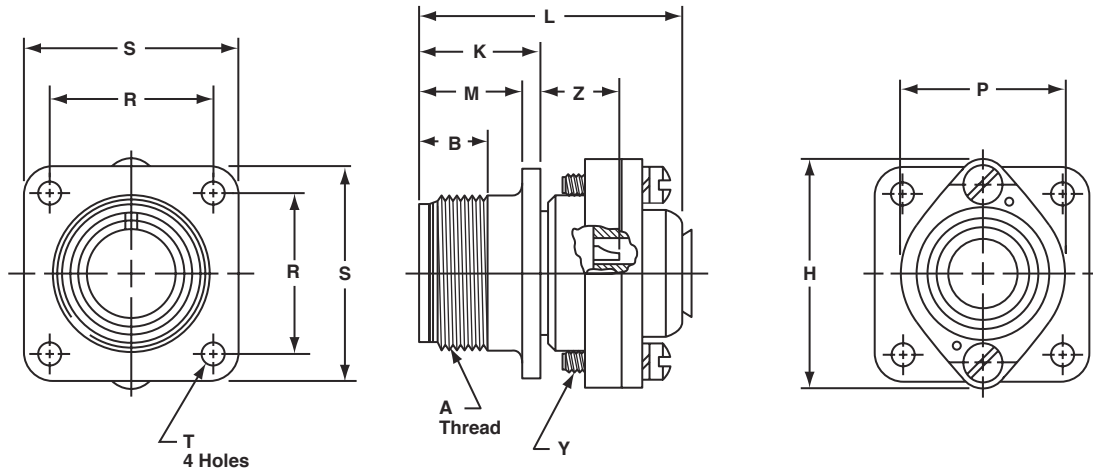
Contacts:

Contacts are machined from copper alloy for maximum corrosion resistance, maximum current carrying capacity and low millivolt drop. Refer to page 54 for additional contact information.

Inserts:

Resilient neoprene inserts provide an outstanding moisture barrier, maximum vibration resistance and high dielectric strength. Either pin or socket insert can be pressurized.

MS/Standard MS3100R wall mounting receptacle

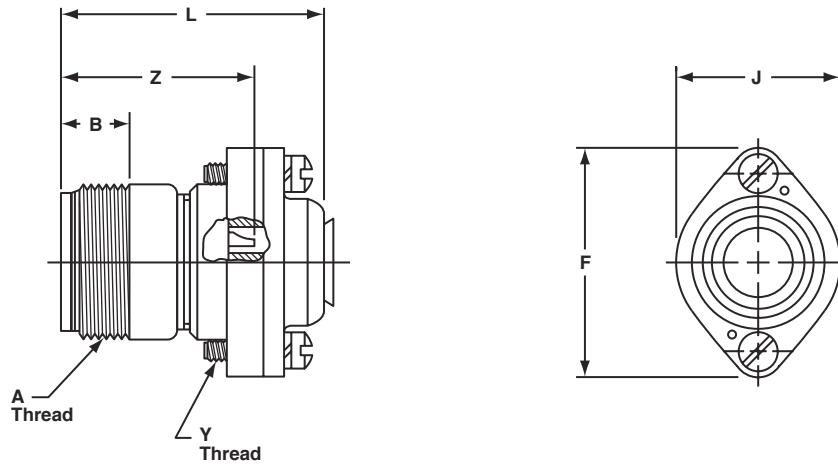


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.
All lockwire holes are .045 dia. min.

Shell Size	A Thread Class 2A	B Min. Full Thread	H Dia. Max.	K +.020 - .010	L Max.	M +.010 - .000	P Dia. Max.	R ±.005	S ±.031	Y Thread Class 2	T Dia. +.004 - .002	Z +.050 - .060
8S	.5000-28UNEF	.391	.959	.672	1.588	.562	.557	.594	.875	6-32NC	.120	.422
10S	.6250-24NEF	.391	1.026	.672	1.588	.562	.682	.719	1.000	6-32NC	.120	.422
10SL	.6250-24NEF	.391	1.120	.672	1.588	.562	.807	.719	1.000	6-32NC	.120	.422
12S	.7500-20UNEF	.450	1.120	.672	1.588	.562	.807	.812	1.094	6-32NC	.120	.422
12	.7500-20UNEF	.625	1.120	.860	1.931	.750	.807	.812	1.094	6-32NC	.120	.672
14S	.8750-20UNEF	.450	1.307	.672	1.588	.562	.932	.906	1.188	6-32NC	.120	.422
14	.8750-20UNEF	.625	1.307	.860	1.931	.750	.932	.906	1.188	6-32NC	.120	.672
16S	1.0000-20UNEF	.450	1.432	.672	1.588	.562	1.057	.969	1.281	6-32NC	.120	.422
16	1.0000-20UNEF	.625	1.432	.860	1.931	.750	1.057	.969	1.281	6-32NC	.120	.672
18	1.1250-18NEF	.625	1.557	.891	1.931	.750	1.182	1.063	1.375	6-32NC	.120	.641*
20	1.2500-18NEF	.625	1.744	.891	1.931	.750	1.291	1.156	1.500	8-32NC	.120	.641*
22	1.3750-18NEF	.625	1.869	.891	1.931	.750	1.432	1.250	1.625	8-32NC	.120	.641*
24	1.5000-18NEF	.625	1.994	.953	2.009	.812	1.557	1.375	1.750	8-32NC	.147	.578*
28	1.7500-18NS	.625	2.166	.953	2.009	.812	1.807	1.562	2.000	8-32NC	.147	.578*
32	2.0000-18NS	.625	2.541	1.031	2.072	.875	2.057	1.750	2.250	10-32NF	.173	.500*
36	2.2500-16UN	.625	2.729	1.031	2.072	.875	2.260	1.938	2.500	10-32NF	.173	.500*
40	2.5000-16UN	.625	2.979	1.031	2.072	.875	2.260	2.510	2.750	10-32NF	.173	.500*

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS3101R inline receptacle

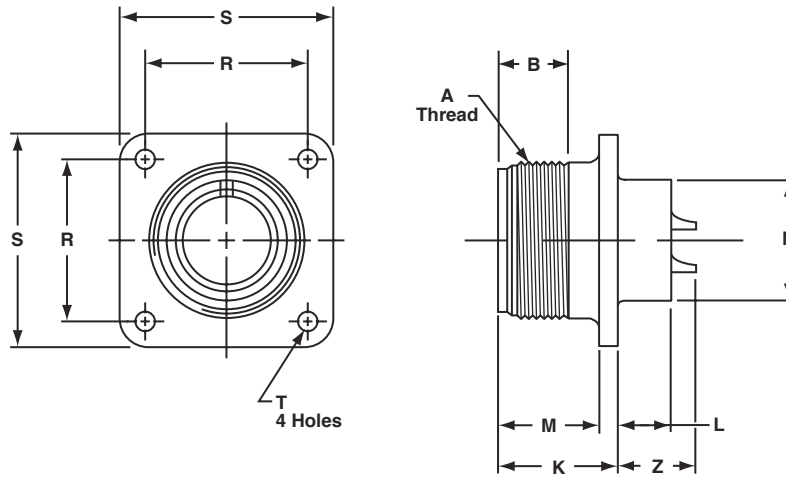


To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.
All lockwire holes are .045 dia. min.

Shell Size	A Thread Class 2A	B Min. Full Thread	F Dia. Max.	J Dia. Max.	L Max.	Y Thread Class 2	Z ±.040
8S	.5000-28UNEF	.406	.959	.557	1.588	6-32NC	1.094
10S	.6250-24NEF	.406	1.026	.682	1.588	6-32NC	1.094
10SL	.6250-24NEF	.406	1.120	.807	1.588	6-32NC	1.094
12S	.7500-20UNEF	.422	1.120	.807	1.588	6-32NC	1.094
12	.7500-20UNEF	.656	1.120	.807	1.931	6-32NC	1.532
14S	.8750-20UNEF	.391	1.307	.932	1.588	6-32NC	1.094
14	.8750-20UNEF	.625	1.307	.932	1.931	6-32NC	1.532
16S	1.0000-20UNEF	.391	1.432	1.057	1.588	6-32NC	1.094
16	1.0000-20UNEF	.625	1.432	1.057	1.931	6-32NC	1.532
18	1.1250-18NEF	.625	1.557	1.182	1.931	6-32NC	1.532*
20	1.2500-18NEF	.625	1.744	1.291	1.931	8-32NC	1.532*
22	1.3750-18NEF	.625	1.869	1.432	1.931	8-32NC	1.532*
24	1.5000-18NEF	.625	1.994	1.557	2.009	8-32NC	1.532*
28	1.7500-18NS	.625	2.166	1.807	2.009	8-32NC	1.532*
32	2.0000-18NS	.625	2.541	2.057	2.072	10-32NF	1.532*
36	2.2500-16UN	.625	2.729	2.260	2.072	10-32NF	1.532*
40	2.5000-16UN	.625	2.979	2.510	2.072	10-32NF	1.532*

* Increase Z dimension by .312 for size "0" contact only.

MS/Standard MS3102R box mounting receptacle



To complete order number, see "how to order" pg. 59.
For solder well data, see page 29.

Shell Size	A Thread Class 2A	B Min. Full Thread	K +.020 - .010	L +.000 - .010	M +.010 - .000	N Dia. +.010 - .000	R ±.005	S ±.031	T Dia. +.004 - .002	Z +.050 - .060
8S	.5000-28UNEF	.391	.672	.297	.562	.375	.594	.875	.120	.422
10S	.6250-24NEF	.391	.672	.297	.562	.500	.719	1.000	.120	.422
10SL	.6250-24NEF	.391	.672	.297	.562	.625	.719	1.000	.120	.422
12S	.7500-20UNEF	.450	.672	.297	.562	.625	.812	1.094	.120	.422
12	.7500-20UNEF	.625	.860	.484	.750	.625	.812	1.094	.120	.672
14S	.8750-20UNEF	.450	.672	.297	.562	.750	.906	1.188	.120	.422
14	.8750-20UNEF	.625	.860	.484	.750	.750	.906	1.188	.120	.672
16S	1.0000-20UNEF	.450	.672	.297	.562	.875	.969	1.281	.120	.422
16	1.0000-20UNEF	.625	.860	.484	.750	.875	.969	1.281	.120	.672
18	1.1250-18NEF	.625	.891	.453	.750	1.000	1.062	1.375	.120	.641*
20	1.2500-18NEF	.625	.891	.453	.750	1.125	1.156	1.500	.120	.641*
22	1.3750-18NEF	.625	.891	.453	.750	1.250	1.250	1.625	.120	.641*
24	1.5000-18NEF	.625	.953	.453	.812	1.375	1.375	1.750	.147	.578*
28	1.7500-18NS	.625	.953	.453	.812	1.625	1.562	2.000	.147	.578*
32	2.0000-18NS	.625	1.031	.438	.875	1.875	1.750	2.250	.173	.500*
36	2.2500-16UN	.625	1.031	.438	.875	2.062	1.938	2.500	.173	.500*
40	2.5000-16UN	.625	1.031	.438	.875	2.312	2.188	2.750	.173	.500*

* Increase Z dimension by .312 for size "0" contact only.