



YongJin 5015 Series Connectors

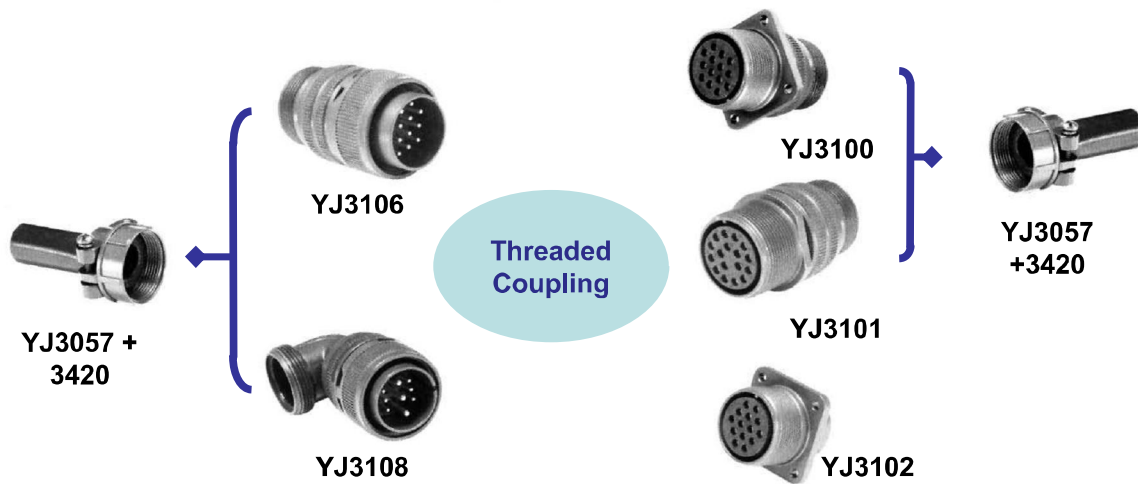
General Description



MIL-C-5015 style circular connectors feature threaded couplings and single key/keyway polarization, representing well-proven electrical capability at an acceptable cost for most equipment where durability is important. These connectors were originally developed for the connection of electric and electronic appliances, or military plane, but now they are also used widely in the field of automotive, robotics, machine tools and welding industries, as well as numerous other commercial applications from heavy equipment to miniature electronic devices.

This catalog is prepared on the basis of "A" for general purpose. This family of connectors offers a wide variety of shell styles, contact patterns and accessory options.

Typical Mating Guide



Technical Data

Materials & Finishes

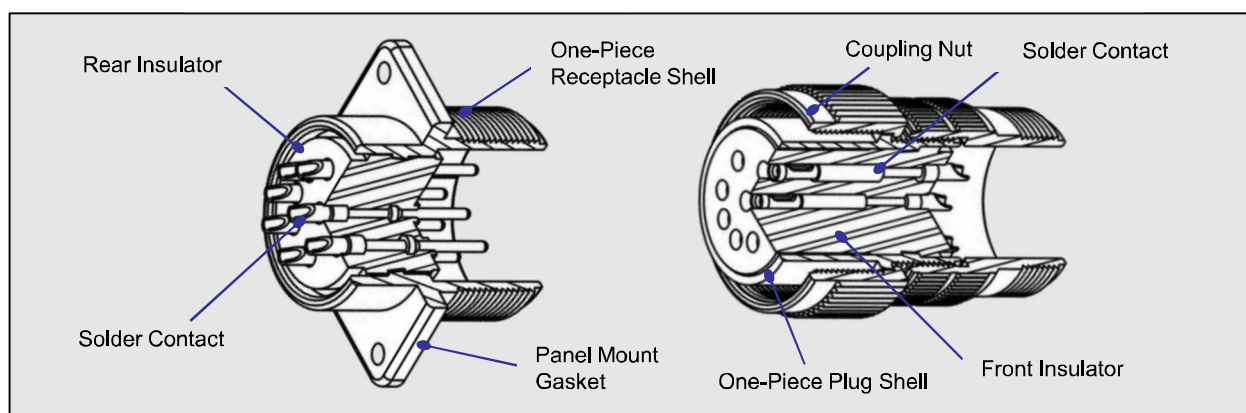
	Materials	Finishes
Shell	Aluminum alloy	Olive drab chromate coating cadmium or Zinc plating *Cadmium free surface coating are available
Contact	Brass or Copper alloy	Silver plating
Insulation	Plastic Resilient Synthetic Rubber	-

Characteristics

Insulation resistance	5,000MΩ, minimum (at 25°C)
Temperature range	-55°C to 125°C
Durability	500cycles connection / disconnection
Degree of water proof	IP 67 (mated pair)

Dielectric withstanding voltage			Contact engagement and separation forces				
Service rating	Test Voltage	Operating Voltage		Contact size	Force in Lbs		
	AC(rms)	AC	DC		Maximum	Average	Minimum
Inst.	1,000	200	250	#16	3.0	2.1	0.25
A	2,000	500	700	#12	5.0	3.5	0.50
D	2,800	900	1,250	#8	10.0	7.0	0.75
E	3,500	1,250	1,750	#4	15.0	10.5	1.0
B	4,500	1,750	2,400	#0	20.0	14.0	2.0
C	7,000	3,000	4,200				

Contact Size		Contact Resistance		Wire Range Accommodations			
Size	Pin contact diam. (mmΦ)	Solder pot diam. (mmΦ)	Test current DC, A	Potential drop ,max. (mV)	A.W.G	Wire nominal Square Size (mm ²)	Dielectric Material Outer diam. (mmΦ)
#16	1.6	2.0	13A	49	#20~#16	≤1.3	1.7~3.3
#12	2.4	3.0	23A	42	#14~#12	≤3.5	2.9~4.3
#8	3.6	5.2	46A	26	#10~#8	≤8.0	4.2~6.4
#4	5.7	8.5	80A	23	#6~#4	≤22.0	7.0~9.4
#0	9.1	12.0	150A	21	#2~#0	≤50.0	10.6~14.0



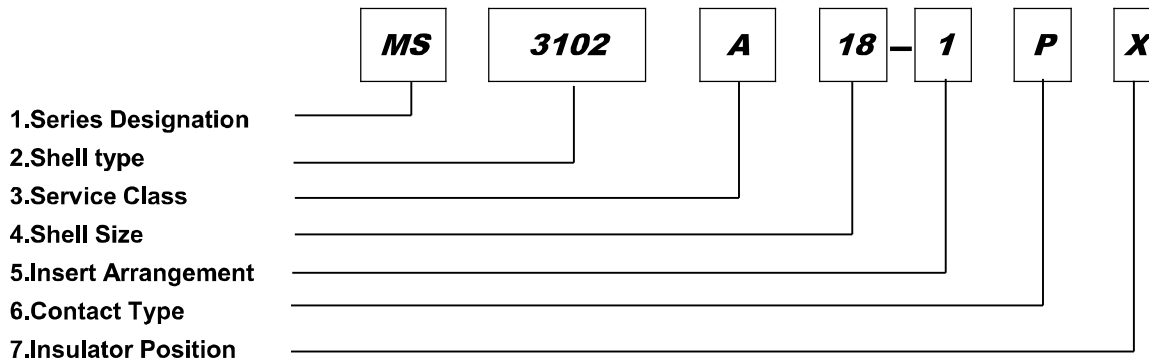
5015



YJ 5015 Series
Ordering Information
MS Circular Connectors

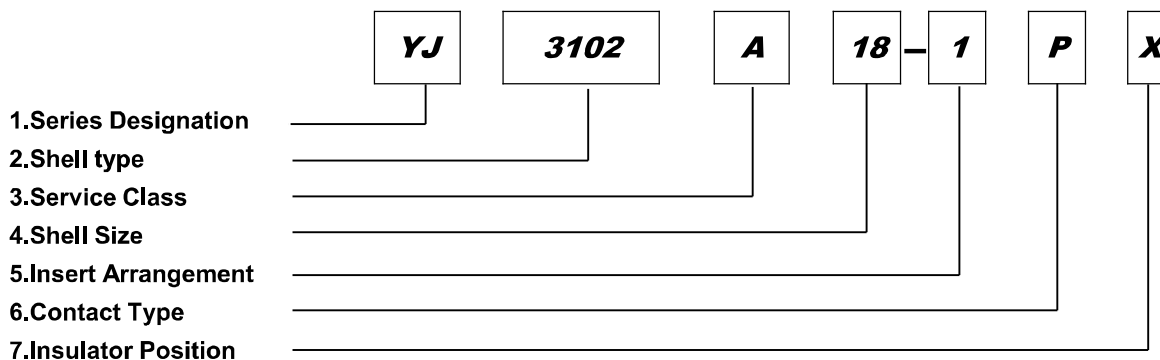
How to order

MIL Part Number System



- | | |
|--|--|
| <p>1. Series Designation: MIL-C-5015 Standard</p> <p>2. Shell type:
 MS3100 - Wall mounting receptacle,
 MS3101 - Cable connecting plug,
 MS3102 - Box mounting receptacle,
 MS3106 - Straight Plug,
 MS3108 - Angle Plug</p> <p>3. Service Class:
 A: Solid shell for general applications
 E: Environmental resisting with resilient insulators and integral cable clamp.
 R: Environmental resisting with resilient insulators **</p> | <p>**and shortened light weight endbell ;also additional sealing with O-ring under coupling nut in styles 3106 and 3108</p> <p>4. Shell size:
 10SL,12S, 14S,14, 16S, 16, 18, 20, 22, 24, 28, 32,36</p> <p>5. Insert arrangement:
 according to MIL-STD-1651</p> <p>6. Contact type:
 P- Pin contact, S- Socket contact</p> <p>7. Insulator position:
 according to MIL-STD-1651</p> |
|--|--|

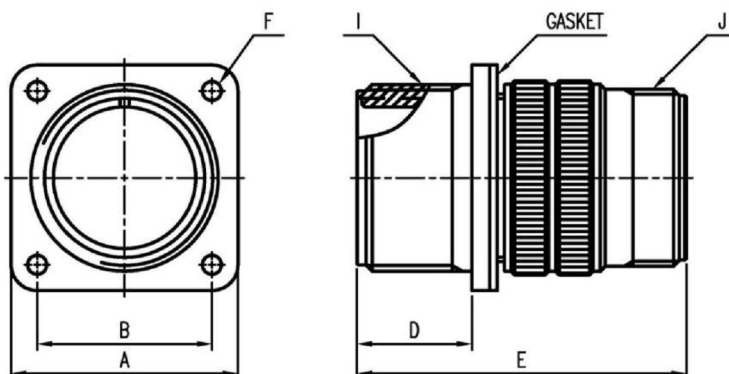
YongJin Part Number System



- | | |
|--|--|
| <p>1. Series Designation:
 YongJin Designation(for any modification)</p> <p>2. Shell type:
 YJ3100 - Wall mounting receptacle,
 YJ3101 - Cable connecting plug,
 YJ3102 - Box mounting receptacle,
 YJ3106 - Straight Plug,
 YJ3108 - Angle Plug</p> <p>3. Service Class:
 A: Solid shell for general applications
 E: Environmental resisting with resilient insulators and integral cable clamp
 R: Environmental resisting with resilient insulators **</p> | <p>**and shortened light weight endbell;also additional sealing with O-ring under coupling nut in styles 3106 and 3108</p> <p>4. Shell size:
 10SL,12S, 14S,14, 16S, 16, 18, 20, 22, 24, 28, 32,36</p> <p>5. Insert arrangement:
 see page 14~20</p> <p>6. Contact type:
 P- Pin contact,
 S- Socket contact</p> <p>7. Insulator position:
 see page 21~22</p> |
|--|--|

“A” Class Dimensions

Wall Mounting Receptacle(MS3100A) YJ3100A



YJ3100A wall mounting receptacles are used with the YJ3057 cable clamp or with conduit to eliminate the need for the conduit box in applications where they are carried thru walls or bulkheads.

(mm)

Shell Size	□A ± 0.79	□B ± 0.12	D +0.79 -0.00	E MAX.	ΦF +0.25 -0.13	I Thread-2A	J Thread-2A
10SL	25.40	18.26	14.28	38.88	3.05	5/8-24 UNEF	5/8-24 UNEF
12S	27.97	20.62	14.28	42.87	3.05	3/4-20 UNEF	5/8-24 UNEF
12	27.97	20.62	19.05	52.37	3.05	3/4-20 UNEF	5/8-24 UNEF
14S	30.18	23.01	14.28	42.87	3.05	7/8-20 UNEF	3/4-20 UNEF
14	30.18	23.01	19.05	52.37	3.05	7/8-20 UNEF	3/4-20 UNEF
16S	32.54	24.61	14.28	42.87	3.05	1-20 UNEF	7/8-20 UNEF
16	32.54	24.61	19.05	52.37	3.05	1-20 UNEF	7/8-20 UNEF
18	34.93	26.97	19.05	52.37	3.05	1 1/8-18 UNEF	1-20 UNEF
20	38.10	29.36	19.05	55.57	3.05	1 1/4-18 UNEF	1 3/16-18 UNEF
22	41.28	31.75	19.05	55.57	3.05	1 3/8-18 UNEF	1 3/16-18 UNEF
24	44.45	34.93	20.63	58.72	3.73	1 1/2-18 UNEF	1 7/16-18 UNEF
28	50.80	39.67	20.63	58.72	3.73	1 3/4-18 UNEF	1 7/16-18 UNEF
32	57.15	44.45	22.23	61.92	4.39	2-18 UNS	1 3/4-18 UNS
36	63.50	49.23	22.23	61.92	4.39	2 1/4-16 UN	2-18 UNS

All dimensions are reference only.

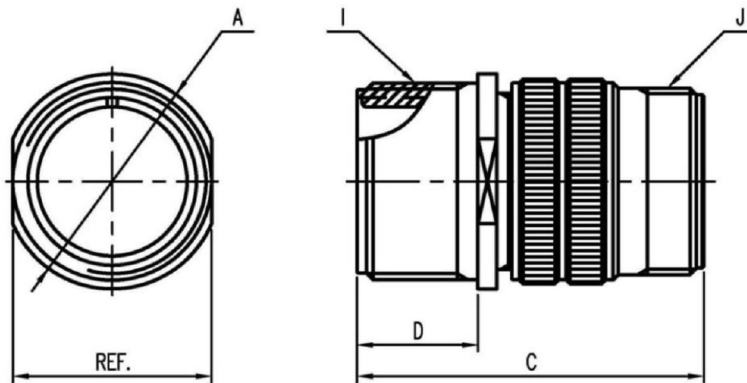
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YJ 5015 Series
Cable Connecting Plug
MS Circular Connectors

“A” Class Dimensions

Cable Connecting Plug (MS3101A)
YJ3101A



YJ3101A solid endbell cables connecting plugs are used for cable extension requirements where mounting provisions are unnecessary.

(mm)

Shell Size	ΦA MAX.	C MAX.	D +0.79 -0.00	I Thread-2A	J Thread-2A
10SL	24.61	38.88	14.28	5/8-24 UNEF	5/8-24 UNEF
12S	26.97	42.87	14.28	3/4-20 UNEF	5/8-24 UNEF
12	26.97	52.37	19.05	3/4-20 UNEF	5/8-24 UNEF
14S	29.36	42.87	14.28	7/8-20 UNEF	3/4-20 UNEF
14	29.36	52.37	19.05	7/8-20 UNEF	3/4-20 UNEF
16S	31.75	42.87	14.28	1-20 UNEF	7/8-20 UNEF
16	31.75	52.37	19.05	1-20 UNEF	7/8-20 UNEF
18	34.13	52.37	19.05	1 1/8-18 UNEF	1-20 UNEF
20	37.31	55.57	19.05	1 1/4-18 UNEF	1 3/16-18 UNEF
22	40.48	55.57	19.05	1 3/8-18 UNEF	1 3/16-18 UNEF
24	43.66	58.72	20.63	1 1/2-18 UNEF	1 7/16-18 UNEF
28	50.01	58.72	20.63	1 3/4-18 UNEF	1 7/16-18 UNEF
32	56.36	61.92	22.23	2-18 UNS	1 3/4-18 UNS
36	62.71	61.92	22.23	2 1/4-16 UN	2-18 UNS

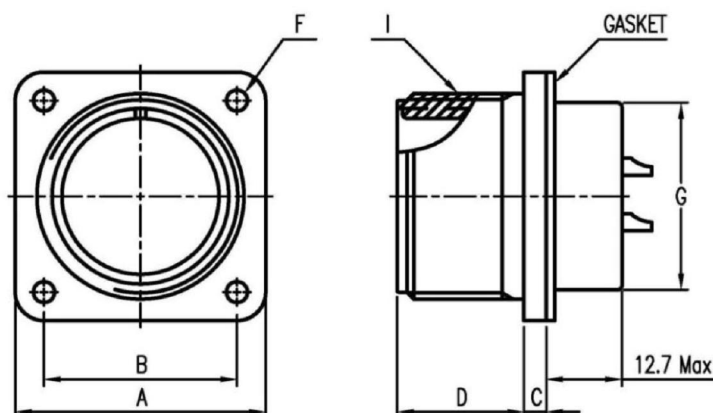
All dimensions are reference only.

“A” Class Dimensions

Box Mounting Receptacle (MS3102A) YJ3102A



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YJ3102A box mounting receptacles are used on boxes and requirement cases where no cable support is required.

(mm)

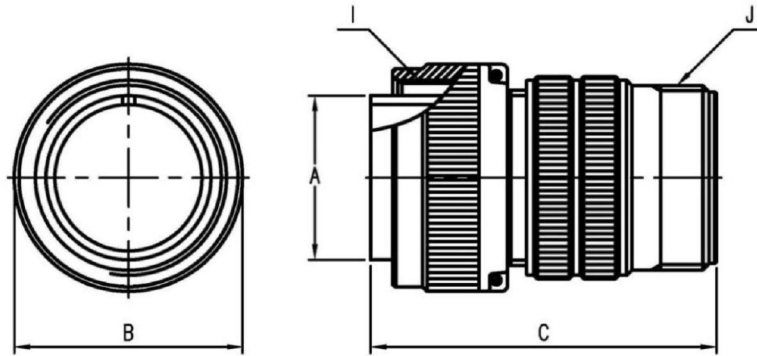
Shell Size	□A ± 0.79	□B ± 0.13	C ± 0.20	D +0.79 -0.00	ΦF +0.25 -0.13	ΦG Max.	I Thread-2A
10SL	25.40	18.26	3.00	14.28	3.05	19.35	5/8-24 UNEF
12S	27.79	20.62	3.00	14.28	3.05	19.35	3/4-20 UNEF
12	27.79	20.62	3.00	19.05	3.05	19.35	3/4-20 UNEF
14S	30.18	23.01	3.00	14.28	3.05	23.01	7/8-20 UNEF
14	30.18	23.01	3.00	19.05	3.05	23.01	7/8-20 UNEF
16S	32.54	24.61	3.00	14.28	3.05	26.21	1-20 UNEF
16	32.54	24.61	3.00	19.05	3.05	26.21	1-20 UNEF
18	34.93	26.97	4.00	19.05	3.05	29.36	1 1/8-18 UNEF
20	38.10	29.36	4.00	19.05	3.05	32.56	1 1/4-18 UNEF
22	41.28	31.75	4.00	19.05	3.05	35.71	1 3/8-18 UNEF
24	44.45	34.93	4.00	20.63	3.75	38.91	1 1/2-18 UNEF
28	50.80	39.37	4.00	20.63	3.75	45.26	1 3/4-18 UNEF
32	57.15	44.45	4.00	22.23	4.39	51.61	2-18 UNS
36	63.50	49.23	4.00	22.23	4.39	57.96	2 1/4-16 UN

All dimensions are reference only.



“A” Class Dimensions

Straight Plug(MS3106A) YJ3106A



YJ3106A straight plugs are used with 3100,3101 and 3102 receptacles.

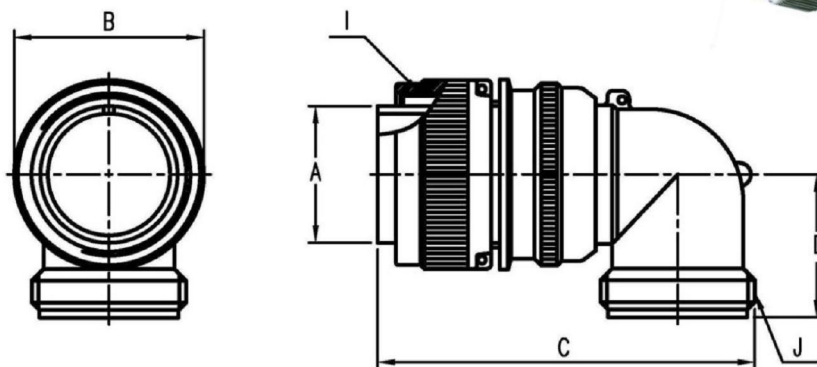
(mm)

Shell Size	ΦA +0.00 -0.38	ΦB MAX.	C MAX.	I Thread-2B	J Thread-2A
10SL	11.33	24.61	38.88	5/8-24 UNEF	5/8-24 UNEF
12S	14.10	26.97	42.87	3/4-20 UNEF	5/8-24 UNEF
12	14.10	26.97	52.37	3/4-20 UNEF	5/8-24 UNEF
14S	17.15	29.36	42.87	7/8-20 UNEF	3/4-20 UNEF
14	17.15	29.36	52.37	7/8-20 UNEF	3/4-20 UNEF
16S	20.45	31.75	42.87	1-20 UNEF	7/8-20 UNEF
16	20.45	31.75	52.37	1-20 UNEF	7/8-20 UNEF
18	23.62	34.13	52.37	1 1/8-18 UNEF	1-20 UNEF
20	26.67	37.31	55.57	1 1/4-18 UNEF	1 3/16-18 UNEF
22	29.85	40.48	55.57	1 3/8-18 UNEF	1 3/16-18 UNEF
24	33.02	43.66	58.72	1 1/2-18 UNEF	1 7/16-18 UNEF
28	38.61	50.01	58.72	1 3/4-18 UNEF	1 7/16-18 UNEF
32	44.96	56.36	61.92	2-18 UNS	1 3/4-18 UNS
36	50.29	62.71	61.92	2 1/4-16 UN	2-18 UNS

All dimensions are reference only.

“A” Class Dimensions

Right Angle Plug(MS3108A) YJ3108A



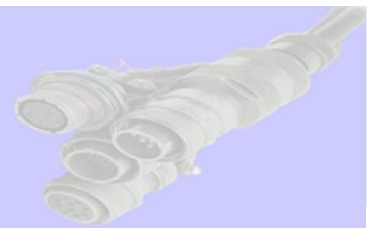
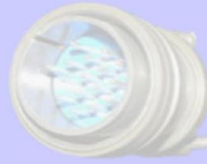
YJ3108A right angle plugs have a solid endbell and are used where wire must be brought at an abrupt angle. Either the split or solid endbells on the 3108 are capable of being rotated and locked.

(mm)

Shell Size	ΦA +0.00 -0.38	ΦB MAX.	C MAX.	D MAX.	I Thread-2B	J Thread-2A
10SL	11.33	24.61	46.02	25.40	5/8-24 UNEF	5/8-24 UNEF
12S	14.10	26.97	50.80	26.97	3/4-20 UNEF	5/8-24 UNEF
12	14.10	26.97	57.15	26.97	3/4-20 UNEF	5/8-24 UNEF
14S	17.15	29.36	53.97	28.57	7/8-20 UNEF	3/4-20 UNEF
14	17.15	29.36	58.72	28.57	7/8-20 UNEF	3/4-20 UNEF
16S	20.45	31.75	60.32	30.17	1-20 UNEF	7/8-20 UNEF
16	20.45	31.75	65.07	30.17	1-20 UNEF	7/8-20 UNEF
18	23.62	34.13	68.27	33.32	1 1/8-18 UNEF	1-20 UNEF
20	26.67	37.31	76.98	34.92	1 1/4-18 UNEF	1 3/16-18 UNEF
22	29.85	40.48	76.98	34.92	1 3/8-18 UNEF	1 3/16-18 UNEF
24	33.02	43.66	86.51	39.67	1 1/2-18 UNEF	1 7/16-18 UNEF
28	38.61	50.01	86.51	39.67	1 3/4-18 UNEF	1 7/16-18 UNEF
32	44.96	56.36	95.25	47.62	2-18 UNS	1 3/4 UNS
36	50.29	62.71	100.02	52.37	2 1/4-16 UN	2-18 UNS

All dimensions are reference only.

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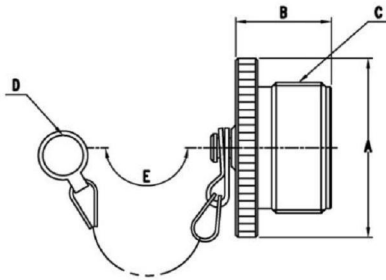


Accessory Dimensions

Plug Protection Cap(MS25042)

YJ25042

(mm)



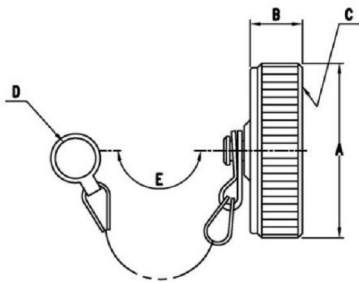
Part Number	Shell Size	ΦA Max.	B Max	C Thread(-2A)	ΦD +0.25 -0.13	E Approx.
MS25042-10D	10S,10SL	17.45	16.66	5/8-24 UNEF	4.20	125
MS25042-12D	12S,12	20.62	21.44	3/4-20 UNEF	4.20	125
MS25042-14D	14S,14	23.80	21.44	7/8-20 UNEF	4.20	125
MS25042-16D	16S,16	26.97	21.44	1-20 UNEF	4.20	125
MS25042-18D	18	30.15	21.44	1 1/8-18 UNEF	4.20	125
MS25042-20D	20	33.32	21.44	1 1/4-18 UNEF	4.20	175
MS25042-22D	22	36.50	21.44	1 3/8-18 UNEF	4.20	175
MS25042-24D	24	39.67	21.44	1 1/2-18 UNEF	4.20	175
MS25042-28D	28	46.02	21.44	1 3/4-18 UNEF	4.20	175
MS25042-32D	32	52.37	21.44	2-18 UNS	4.20	175
MS25042-36D	36	58.72	21.44	2 1/4-16 UN	4.20	175

These externally threaded metal dust caps are used to protect the YJ3106 and YJ3108 plugs. Material is aluminum alloy. They are furnished with sash chains and are available with bead chains.

Receptacle Protection Cap(MS25043)

YJ25043

(mm)



Part Number	Shell Size	ΦA Max.	B Max	C Thread(-2B)	ΦD +0.25 -0.13	E Approx.
MS25043-10D	10S,10SL	20.70	11.91	5/8-24 UNEF	4.20	125
MS25043-12D	12S,12	25.40	11.91	3/4-20 UNEF	4.20	125
MS25043-14D	14S,14	28.58	11.91	7/8-20 UNEF	4.20	125
MS25043-16D	16S,16	30.18	11.91	1-20 UNEF	4.20	125
MS25043-18D	18	34.13	11.91	1 1/8-18 UNEF	4.20	125
MS25043-20D	20	37.31	11.91	1 1/4-18 UNEF	4.20	175
MS25043-22D	22	40.49	11.91	1 3/8-18 UNEF	4.20	175
MS25043-24D	24	43.66	11.91	1 1/2-18 UNEF	4.20	175
MS25043-28D	28	50.01	13.49	1 3/4-18 UNEF	4.20	175
MS25043-32D	32	56.36	13.49	2-18 UNS	4.20	175
MS25043-36D	36	62.71	13.49	2 1/4-16 UN	4.20	175

These internally threaded metal dust caps are used to protect the YJ3100, YJ3101 and YJ3102 receptacles. Material is aluminum alloy. They are furnished with sash chains and are available with bead chains.

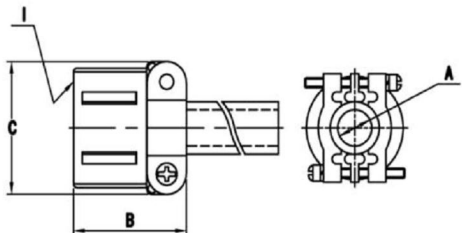
Accessory Dimensions



Cable Clamp(MS3057)

YJ3057

(mm)



Part Number	Shell Size	ΦA	B ±0.79	ΦC ±0.79	I Thread(-2B)
YJ3057-4A	10SL, 12S & 12	5.59	20.62	20.62	5/8-24 UNEF
YJ3057-6A	14S & 14	7.92	22.22	24.61	3/4-20 UNEF
YJ3057-8A	16S & 16	11.10	23.83	27.79	7/8-20 UNEF
YJ3057-10A	18	14.27	23.83	30.18	1-20 UNEF
YJ3057-12A	20 & 22	15.88	23.83	34.93	1 3/16-18 UNEF
YJ3057-16A	24 & 28	19.05	26.19	42.06	1 7/16-18 UNEF
YJ3057-20A	32	23.80	27.79	51.59	1 3/4-18 UNS
YJ3057-24A	36	31.75	29.36	56.36	2-18 UNS

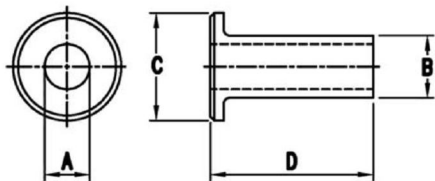
YJ3057 style cable clamp was designed for use with jacketed cable or wire protected by tubing. Both clamping halves float maximum strain relief for unjacketed cable or wires, use corresponding YJ3420 telescoping bushing. To order clamp without bushing, add -1 to the P/N.



Telescoping Bushing(MS3420)

YJ3420

(mm)



Part Number	Shell Size	ΦA ±0.41	ΦB ±0.41	ΦC ±0.41	D ±0.79
YJ3420-4	10SL, 12S & 12	5.59	7.67	12.83	69.85
YJ3420-6	14S & 14	7.92	10.85	15.72	66.68
YJ3420-8	16S & 16	11.10	14.02	18.90	63.50
YJ3420-10	18	14.27	15.62	22.07	60.32
YJ3420-12	20 & 22	15.88	18.80	27.03	57.15
YJ3420-16	24 & 28	19.05	23.55	33.38	53.98
YJ3420-20	32	23.80	31.50	40.54	50.82
YJ3420-24	36	31.75	34.67	46.91	47.62

Telescoping bushing(used with 3057 clamp) keeps dirt, oil and moisture out of endbell. Taping or wrapping wires is eliminated since bushing protects wires going thru clamp. Combinations of bushing may be used to decrease cable entry diameter to improve sealing.

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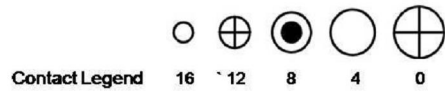


YJ 5015 Series

Contact Arrangement

MS Circular Connectors

Contact Arrangement

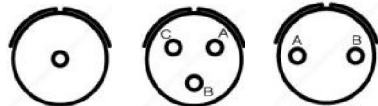


Shell Size 8



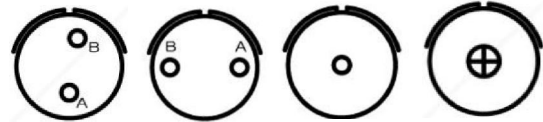
Insert Arrangement	8S-1
Service Rating	A
Number of Contacts	1
Contact Size	16

Shell Size 10



Insert Arrangement	10S-2	10SL-3	10SL-4
Service Rating	A	INST, A	A
Number of Contacts	1	3	2
Contact Size	16	16	16

Shell Size 12



Insert Arrangement	12S-1	12S-3	12S-4	12S-5
Service Rating	A	A	D	D
Number of Contacts	2	2	1	1
Contact Size	16	16	16	12

Shell Size 14



Insert Arrangement	14S-1	14S-2	14S-3	14S-4	14S-5	14S-6	14S-7
Service Rating	A	INST	A	D	INST	INST	A
Number of Contacts	3	4	1	1	5	6	3
Contact Size	16	16	8	16	16	16	16

Shell Size 16



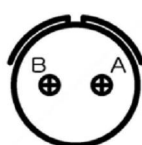
Insert Arrangement	14S-9	14S-12	16S-01	16S-1	16S-4	16S-5
Service Rating	A	A	A	A	D	A
Number of Contacts	2	3	8	7	2	3
Contact Size	16	16	18	16	16	16

Shell Size 16



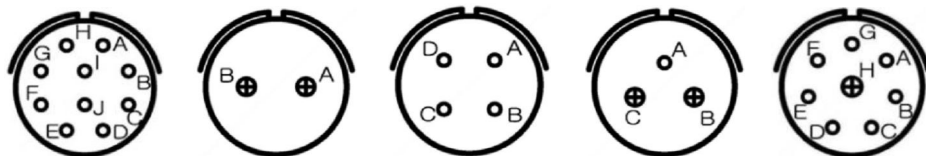
Insert Arrangement	16S-6	16S-8	16-9	16-10	16-11	16-12
Service Rating	A	A	A	A	A	A
Number of Contacts	3	5	2 2	3	2	1
Contact Size	16	16	16 12	12	12	4

Shell Size 16



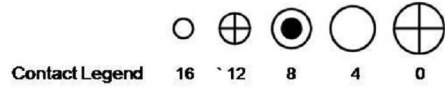
Insert Arrangement	16-13
Service Rating	A
Number of Contacts	2
Contact Size	12

Shell Size 18

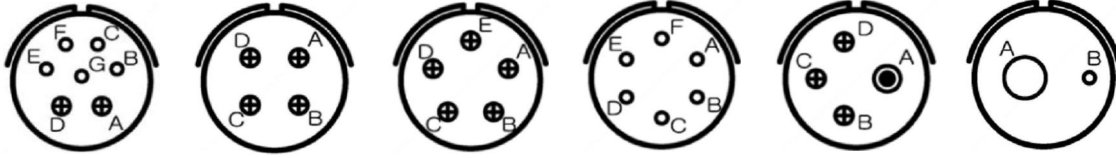


Insert Arrangement	18-1	18-3	18-4	18-5	18-8
Service Rating	B, C, F, G = A All others = INST	D	D	D	A
Number of Contacts	10	2	4	1 2	7 1
Contact Size	16	12	16	16 12	16 12

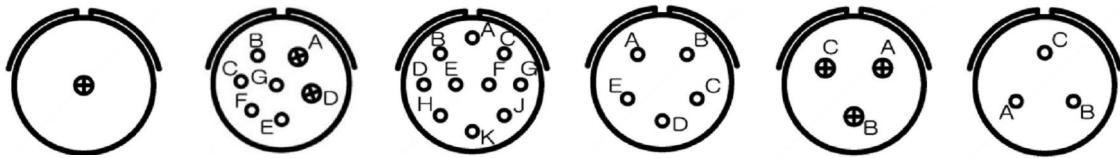
Contact Arrangement



Shell Size 18

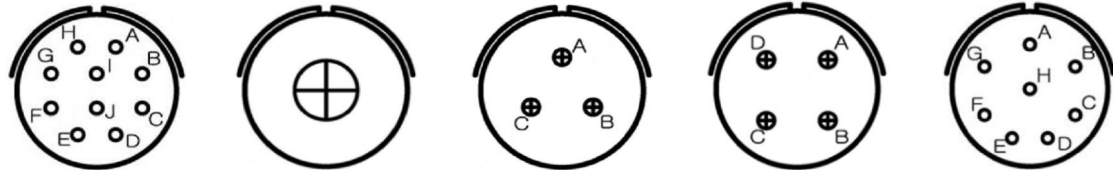


Insert Arrangement	18-9	18-10	18-11	18-12	18-13	18-14
Service Rating	INST	A	A	A	A	A
Number of Contacts	5 2	4	5	6	3 1	1 1
Contact Size	16 12	12	12	16	12 8	16 4

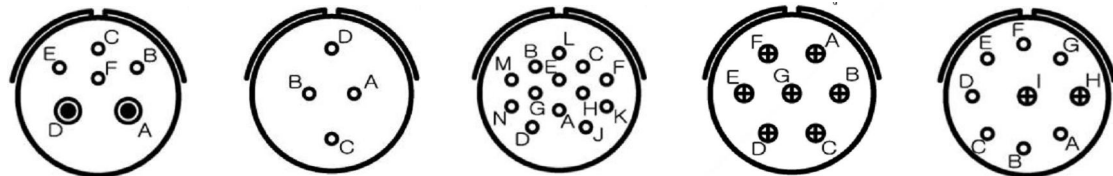


Insert Arrangement	18-16	18-18	18-19	18-20	18-21	18-22
Service Rating	C	INST	A	A	A	D
Number of Contacts	1	5 2	10	5	3	3
Contact Size	12	16 12	16	16	12	16

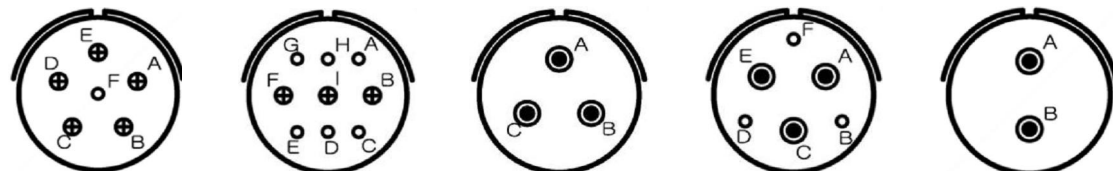
Shell Size 20



Insert Arrangement	20-01	20-2	20-3	20-4	20-7
Service Rating	A	D	D	D	A, B, H, G=D C, D, E, F=A
Number of Contacts	10	1	3	4	8
Contact Size	16	0	12	12	16



Insert Arrangement	20-8	20-10	20-11	20-15	20-16
Service Rating	INST	A	INST	A	INST
Number of Contacts	4 2	4	13	7	7 2
Contact Size	16 8	16	16	12	16 12



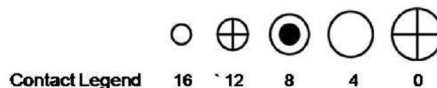
Insert Arrangement	20-17	20-18	20-19	20-22	20-23
Service Rating	A	A	A	A	A
Number of Contacts	1 5	6 3	3	3 3	2
Contact Size	16 12	16 12	8	16 8	8

5015

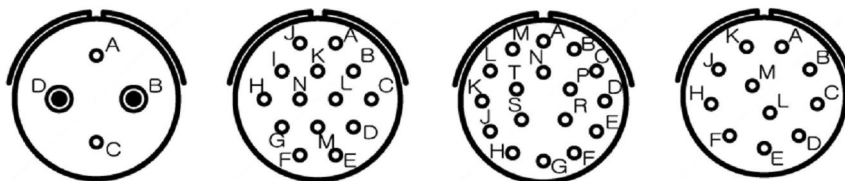


YJ 5015 Series Contact Arrangement MS Circular Connectors

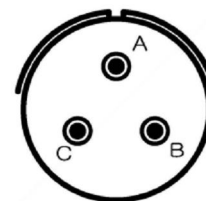
Contact Arrangement



Shell Size 20

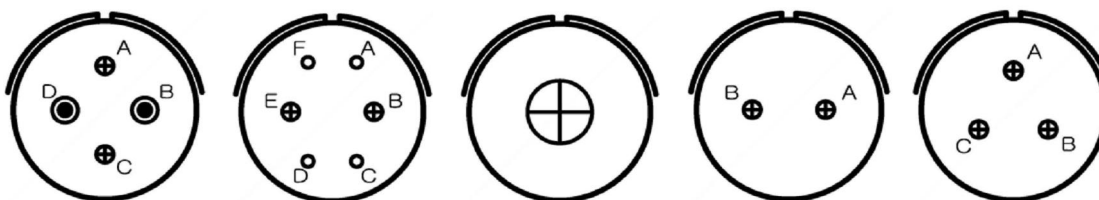


Shell Size 22

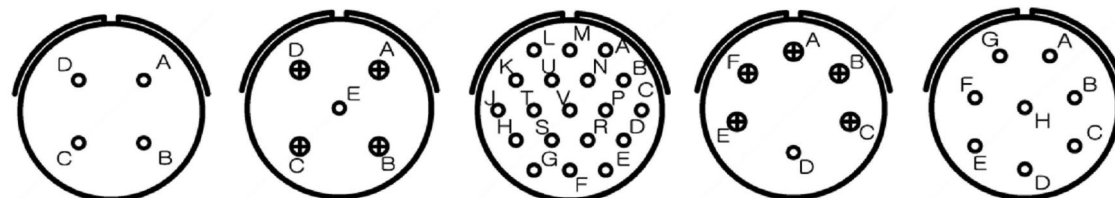


Insert Arrangement	20-24	20-27	20-29	20-33	22-2
Service Rating	A	A	A	A	D
Number of Contacts	2 2	14	17	11	3
Contact Size	16 8	16	16	16	8

Shell Size 22

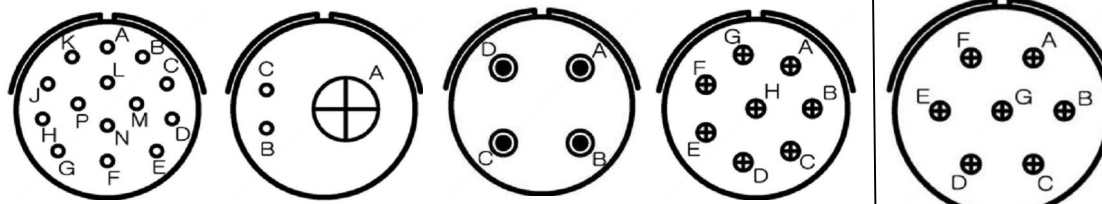


Insert Arrangement	22-4	22-5	22-7	22-8	22-9
Service Rating	A	D	E	E	E
Number of Contacts	2 2	4 2	1	2	3
Contact Size	12 8	16 12	0	12	12



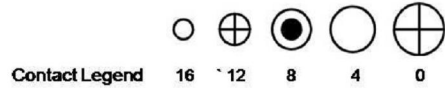
Insert Arrangement	22-10	22-13	22-14	22-15	22-18
Service Rating	E	A	A	A,B,C,D,E,F=A D=E	A,B,F,G,H=D C,D,E=A
Number of Contacts	4	1 4	19	1 5	8
Contact Size	16	16 12	16	16 12	16

Shell Size 24

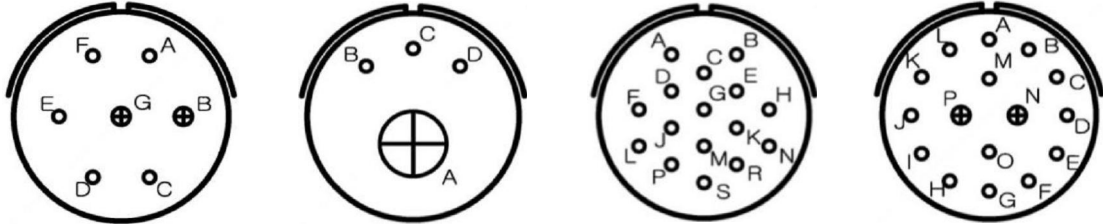


Insert Arrangement	22-19	22-21	22-22	22-23	24-2
Service Rating	A	A	A	A,B,C,D,E,F,G=A H=D	D
Number of Contacts	14	2 1	4	8	7
Contact Size	16	16 0	8	12	12

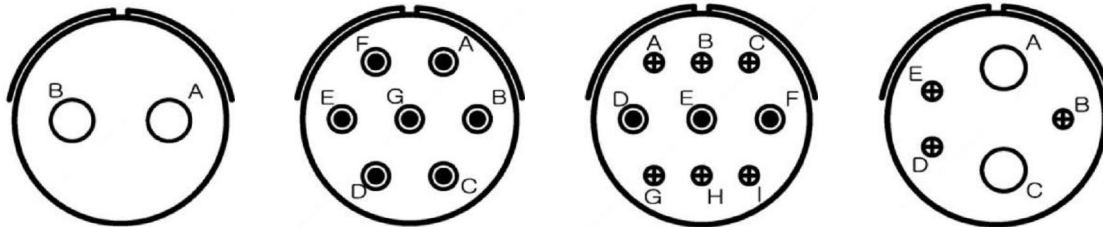
Contact Arrangement



Shell Size 24

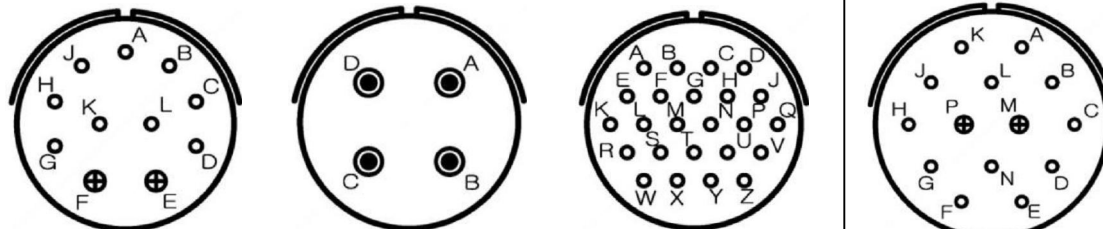


Insert Arrangement	24-3	24-4	24-5	24-7
Service Rating	D	E	A	A
Number of Contacts	5 2	3 1	16	14 2
Contact Size	16 12	16 0	16	16 12

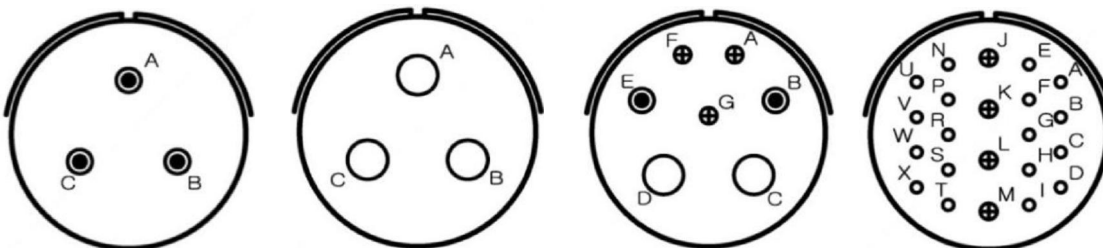


Insert Arrangement	24-9	24-10	24-11	24-12
Service Rating	A	A	A	A
Number of Contacts	2	7	6 3	3 2
Contact Size	4	8	12 8	12 4

Shell Size 28



Insert Arrangement	24-20	24-22	24-28	28-2
Service Rating	D	D	INST	D
Number of Contacts	9 2	4	24	12 2
Contact Size	16 12	8	16	16 12



Insert Arrangement	28-3	28-6	28-10	28-11
Service Rating	E	D	G=D; all others=A	A
Number of Contacts	3	3	3 2 2	18 4
Contact Size	8	4	12 8 4	16 12

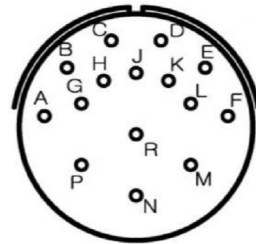
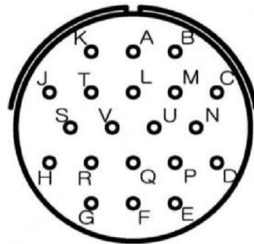
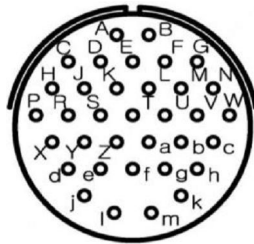
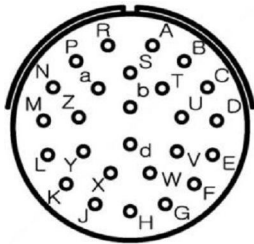
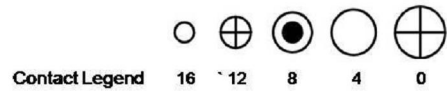
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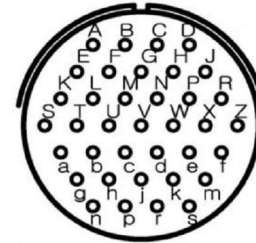
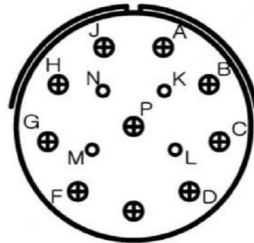
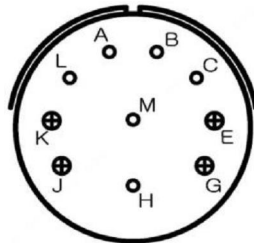
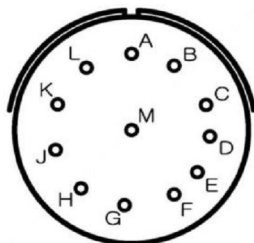
YJ 5015 Series Contact Arrangement MS Circular Connectors

Contact Arrangement

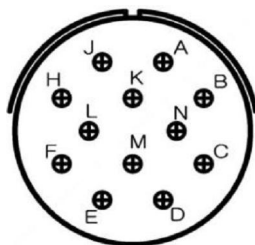
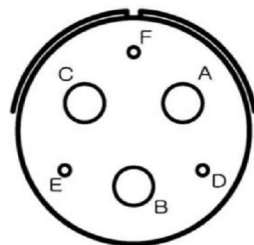
Shell Size 28



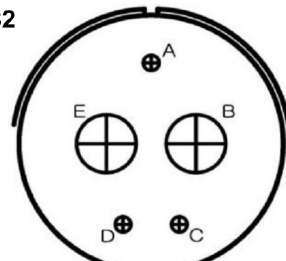
Insert Arrangement	28-12	28-15	28-16	28-17
Service Rating	A	A	A	R=B; M,N,P=D all others=A
Number of Contacts	26	35	20	15
Contact Size	16	16	16	16



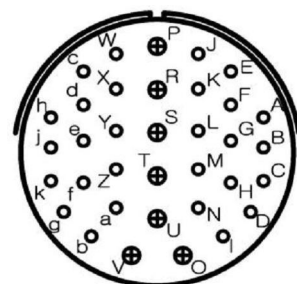
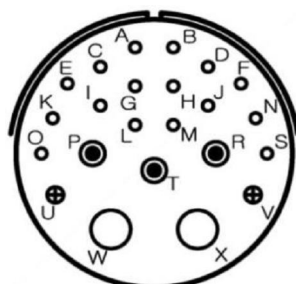
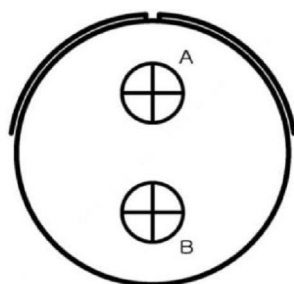
Insert Arrangement	28-18	28-19	28-20	28-21
Service Rating	M=C; A B=A C,D,E,F=INST; all others=D	A,B=D; H,M=B all others=A	A	A
Number of Contacts	12	6 4	4 10	37
Contact Size	16	16 12	16 12	16



Shell Size 32

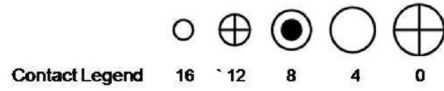


Insert Arrangement	28-22	28-51	32-1
Service Rating	D	A	A=E; all others=D
Number of Contacts	3 3	12	3 2
Contact Size	16 4	12	12 0

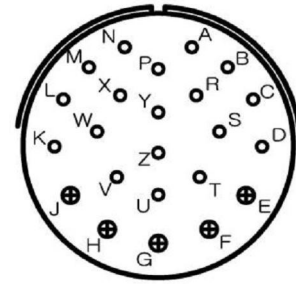
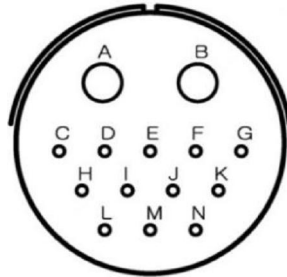
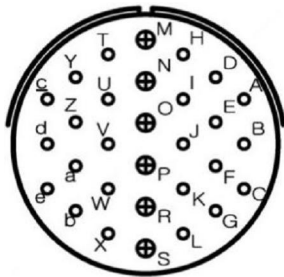


Insert Arrangement	32-5	32-6	32-7
Service Rating	D	A	A,B,h,j=INST; all others=A
Number of Contacts	2	16 2 3 2	28 7
Contact Size	0	16 12 8 4	16 12

Contact Arrangement

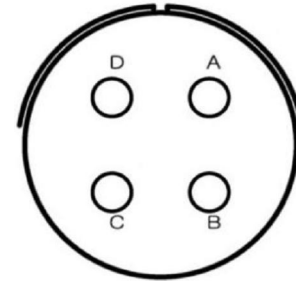
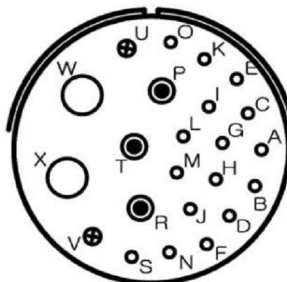
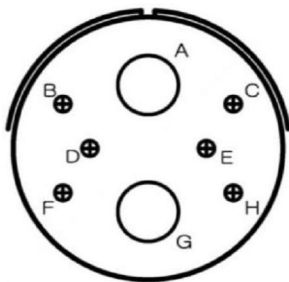


Shell Size 32



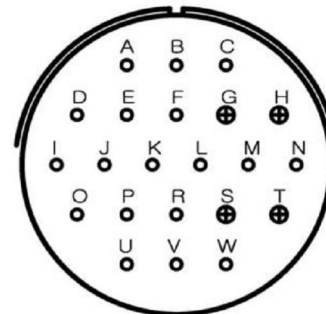
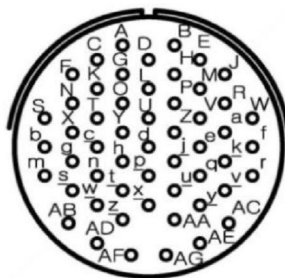
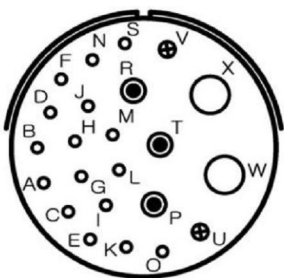
5015

Insert Arrangement	32-8	32-9	32-13
Service Rating	A	D	D
Number of Contacts	24 6	12 2	18 5
Contact Size	16 12	16 4	16 12



Insert Arrangement	32-15	32-16	32-17
Service Rating	D	A	D
Number of Contacts	6 2	16 2 3 2	4
Contact Size	12 0	16 12 8 4	4

Shell Size 36

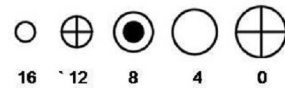


Insert Arrangement	32-20	32-22	36-1
Service Rating	1A	A	D
Number of Contacts	16 2 3 2	54	18 4
Contact Size	16 12 8 4	16	16 12

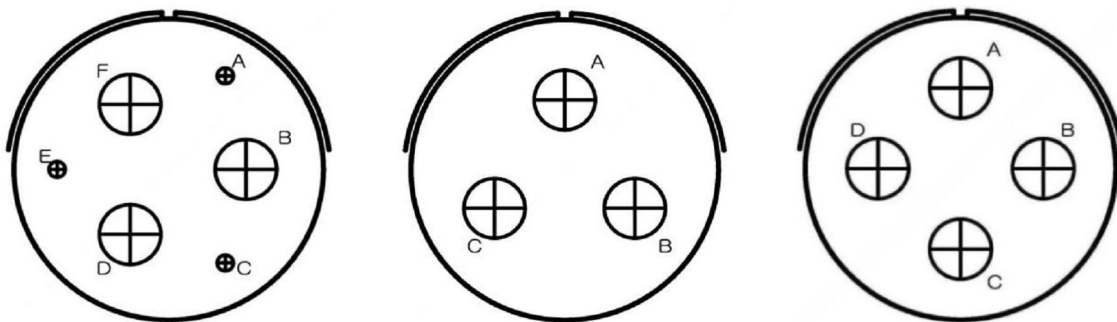


YJ 5015 Series
Contact Arrangement
MS Circular Connectors

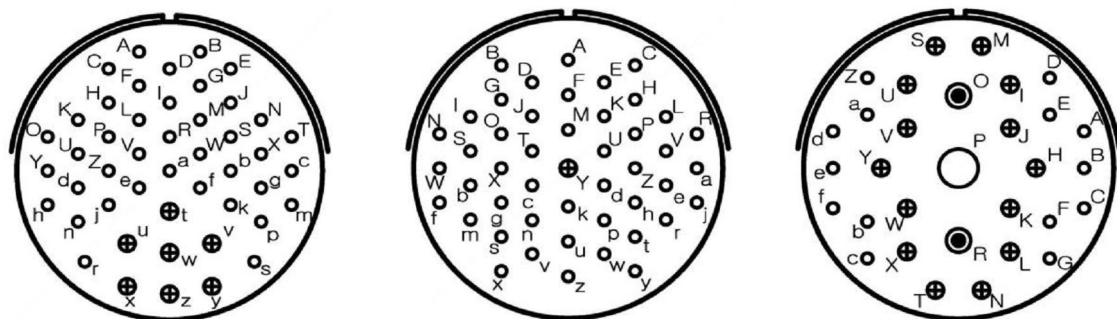
Contact Arrangement



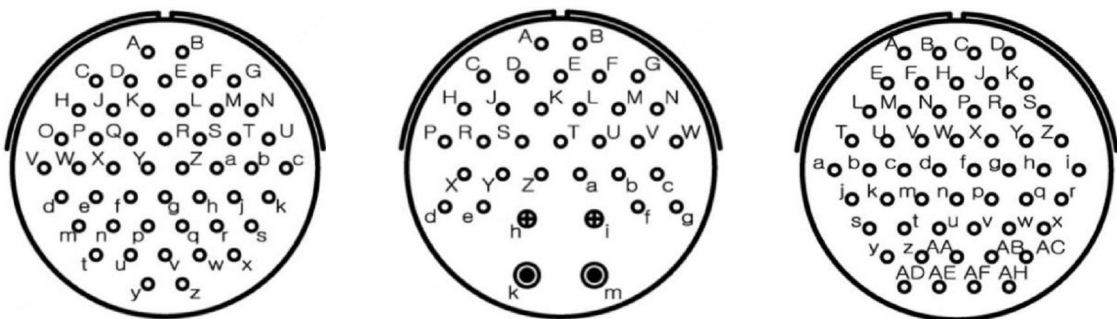
Shell Size 36



Insert Arrangement	36-3	36-4	36-5
Service Rating	D	A=D;B,C=A	A
Number of Contacts	3 3	3	4
Contact Size	12 0	0	0

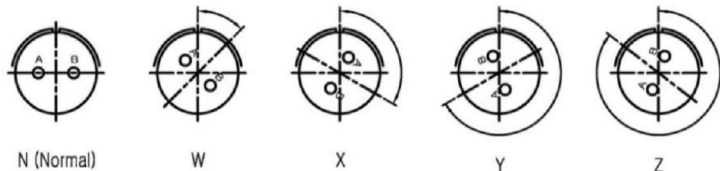


Insert Arrangement	36-7	36-8	36-9
Service Rating	A	A	1A
Number of Contacts	40 7	46 1	14 14 2 1
Contact Size	16 12	16 12	16 12 8 4



Insert Arrangement	36-10	36-20	36-52
Service Rating	A	1A	A
Number of Contacts	48	30 2 2	52
Contact Size	16	16 12 8	16

Insert Arrangement & Alternate Positioning



Contact Arrangement	Service Rating	Total Cont-acts	Contact Size					Alternate Position-Degrees			
			0	4	8	12	16	W	X	Y	Z
10S-2	A	1					1	-	-	-	-
10SL-3	A	3					3	-	-	-	-
10SL-4	A	2					2	-	-	-	-
12S-1	A	2					2	-	-	-	-
12S-3	A	2					2	70	145	215	290
12S-4	D	1					1	-	-	-	-
12-5	D	1				1		-	-	-	-
14S-1	A	3					3	-	-	-	-
14S-2	INST	4					4	-	120	240	-
14S-4	D	1					1	-	-	-	-
14S-5	INST	5					5	-	110	-	-
14S-6	INST	6					6	-	-	-	-
14S-7	A	3					3	90	180	270	-
14S-9	A	2					2	70	145	215	290
14S-10	INST	4					4	-	-	-	-
14S-12	A	3					3	-	-	-	-
14-3	A	1			1			-	-	-	-
16S-1	A	7					7	80	-	-	280
16S-3	B	1					1	-	-	-	-
16S-4	D	2					2	35	110	250	325
16S-5	A	3					3	70	145	215	290
16S-6	A	3					3	90	180	270	-
16S-8	A	5					5	-	170	265	-
16-2	E	1				1		-	-	-	-
16-7	A	3			1		2	-	-	-	-
16-9	A	4				2	2	35	110	250	325
16-10	A	3				3		90	180	270	-
16-11	A	2				2		35	110	250	325
16-12	A	1		1				-	-	-	-
16-13	A	2				2		35	110	250	325
18-1	A/Inst	10					10	70	145	215	290
18-3	D	2				2		35	110	250	325
18-4	D	4				4		35	110	250	325
18-5	D	3				2	1	80	110	250	280
18-6	D	1		1				-	-	-	-
18-7	B	1			1			-	-	-	-
18-8	A	8				1	7	70	-	-	290
18-9	INST	7				2	5	80	110	250	280
18-10	A	4				4		-	120	240	-
18-11	A	5				5		-	170	265	-
18-12	A	6				6		80	-	-	280
18-13	A	4			1	3		80	110	250	280
18-14	A	2		1		1		-	-	-	-
18-15	A	4				4		-	120	240	-

Contact Arrangement	Service Rating	Total Cont-acts	Contact Size					Alternate Position-Degrees			
			0	4	8	12	16	W	X	Y	Z
18-16	C	1					1	-	-	-	-
18-17	INST	7					2	5	-	-	-
18-19	A	10						10	-	120	240
18-20	A	5					5	90	180	270	-
18-21	A	3					3	-	-	-	-
18-22	D	3					3	70	145	215	290
18-24	A/INST	10					10	-	-	-	-
18-29	A	5					5	-	-	-	-
18-30	A	5					5	-	-	-	-
18-31	A	5					5	-	-	-	-
20-2	D	1	1					-	-	-	-
20-3	D	3					3	70	145	215	290
20-4	D	4					4	45	110	250	-
20-6	D	3					3				
20-7	D/A	8					8	80	110	250	280
20-8	INST	6			2		4	80	110	250	280
20-9	D/A	8				1	7				
20-11	INST	13					13	-	-	-	-
20-12	A	2		1			1	-	-	-	-
20-14	A	5			2	3		-	-	-	-
20-15	A	7				7		80	-	-	280
20-16	A	9				2	7	80	110	250	280
20-17	A	6				5	1	90	180	270	-
20-18	A	9				3	6	35	110	250	325
20-19	A	3				3		90	180	270	-
20-20	A	4			1	3		-	-	-	-
20-21	A	9				1	8	-	-	-	-
20-22	A	6				3	3	80	110	250	280
20-23	A	2				2		35	110	250	325
20-24	A	4				2	2	-	-	-	-
20-25	INST	13					13	-	-	-	-
20-27	A	14					14	35	110	250	325
20-29	A	17					17	80	-	-	280
20-30	INST	13					13	-	-	-	-
20-33	A	11					11	-	-	-	-
22-1	D	2				2		35	110	250	325
22-2	D	3				3		70	145	215	290
22-4	A	4				2	2	35	110	250	325
22-5	D	6				2	4	-	-	-	-
22-6	D	3				2	1	-	-	-	-
22-7	E	1	1					-	-	-	-
22-8	E	2					2	35	110	250	325
22-9	E	3					3	70	145	215	290
22-10	E	4					4	35	110	250	325

5015

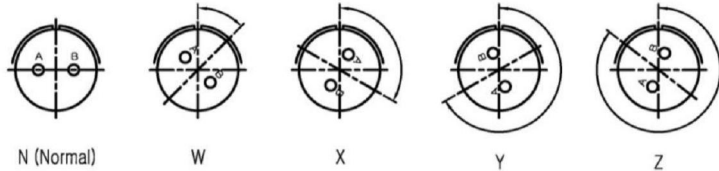


YJ 5015 Series

Insert Arrangement

MS Circular Connectors

Insert Arrangement & Alternate Positioning



Contact Arrangement	Service Rating	Total Cont-acts	Contact Size					Alternate Position-Degrees							
			0	4	8	12	16	W	X	Y	Z				
22-11	B	2					2	35	110	250	325				
22-12	D	5			2		3	80	110	250	280				
22-13	D/A	5				4	1	35	110	250	325				
22-14	A	19					19	80	110	250	280				
22-15	E/A	6				5	1	80	110	250	280				
22-16	A	9				3	6	-	-	-	-				
22-17	D/A	9				1	8	-	-	-	-				
22-18	A/D	8					8	80	110	250	280				
22-19	A	14					14	80	110	250	280				
22-20	A	9					9	35	110	250	325				
22-21	A	3	1				2	-	-	-	-				
22-22	A	4			4			-	110	250	-				
22-23	D/A	8				8		35	-	250	-				
22-27	D/A	6				2	4	80	-	250	280				
22-28	A	9			1		8	80	-	-	280				
22-33	D/A	7					7	-	-	-	-				
22-34	D	5				3	2	-	-	-	-				
24-2	D	7				7		80	-	-	280				
24-3	D	7				2	5	-	-	-	-				
24-5	A	16					16	80	110	250	280				
24-6	D/A	8				8		80	110	250	280				
24-7	A	16				2	14	80	110	250	280				
24-9	A	2		2				35	110	250	325				
24-10	A	7			7			80	-	-	280				
24-11	A	9			3	6		35	110	250	325				
24-12	A	5		2		3		80	110	250	280				
24-16	D/A	7			1	3	3	-	-	-	-				
24-14	D	5				2	3	-	-	-	-				
24-20	D	11				2	9	80	110	250	280				
24-21	D	10			1		9	-	-	-	-				
24-22	D	4			4			45	110	250	-				
24-27	D	7					7	-	-	-	-				
24-28	INST	24					24	80	110	250	280				
28-1	D/A	9			3	6		80	110	250	280				
28-2	D	14				2	12	-	-	-	-				
28-3	E	3				3		70	145	215	290				
28-4	E/D	9				2	7	-	-	-	-				
28-5	D	5		2		1	2	-	-	-	-				
28-6	D	3		3				70	145	215	290				
28-7	D	2		2				35	110	250	325				
28-8	E/D/A	12				2	10	-	-	-	-				
28-9	D	12				6	6	80	110	250	280				
28-10	D/A	7		2	2	3		80	110	250	280				
28-11	A	22				4	18	80	110	250	280				
28-12	A	26					26	90	180	270	-				

Contact Arrangement	Service Rating	Total Cont-acts	Contact Size					Alternate Position-Degrees							
			0	4	8	12	16	W	X	Y	Z				
28-13	A	26						26	-	-	-	-			
28-15	A	35						35	80	110	250	280			
28-16	A	20						20	80	110	250	280			
28-17	B/D/A	15						15	-	-	-	-			
28-18	C/D/A/Inst	12						12	-	-	-	-			
28-19	B/D/A	10				4	6		80	110	250	280			
28-20	A	14				10	4		80	110	250	280			
28-21	A	37						37	80	110	250	280			
28-22	D	6			3			3	70	145	215	290			
32-1	E/D	5	2				3		80	110	250	280			
32-2	E	5		3				2	-	-	-	-			
32-3	D	9	1	2			2	4	-	-	-	-			
32-4	A/D	14					2	12	-	-	-	-			
32-5	D	2	2						35	110	250	325			
32-6	A	23		2	3	2	16	80	110	250	325				
32-7	INST/A	35					7	28	80	125	235	280			
32-8	A	30					6	24	80	125	235	280			
32-9	D	14		2				12	80	110	250	280			
32-10	E/B/D/A	7		2	2			3	-	-	-	-			
32-12	A/D	15					5	10	-	-	-	-			
32-13	D	23					5	18	-	-	-	-			
32-15	D	8	2				6		35	110	250	280			
32-16	A	23		2	3	2	16	-	-	-	-				
32-17	D	4		4					45	110	250	280			
32-22	A/U/V	54						54	80	110	250	280			
36-1	D	22					4	18	80	110	250	280			
36-3	D	6	3				3		70	145	215	290			
36-4	D/A	3	3						70	145	215	290			
36-5	A	4	4						-	120	240	-			
36-6	A	6	2	4					35	110	250	325			
36-7	A	47					7	40	80	110	250	280			
36-8	A	47					1	46	80	110	250	280			
36-9	A	31		1	2	14	14	80	125	235	280				
36-10	A	48						48	80	125	235	280			
36-11	A	48						48	-	-	-	-			
36-12	A	48						48	-	-	-	-			
36-13	E/A	17					2	15	80	110	250	280			
36-14	D	16				5	5	6	90	180	270	-			
36-15	D/A	35						35	60	125	245	305			
36-16	A	47					7	40	-	-	-	-			
36-17	A	47					7	40	-	-	-	-			
36-18	A	31		1	2	14	14	-	-	-	-	-			
36-20	A	34				2	2	30	-	-	-	-			
36-52	A	52						52	72	114	216	288			