

# MIL-DTL-5015 SERIES CONNECTOR



MIL-DTL-5015 Series connectors were designed for the connection of electric and electronic device. The connectors used in wide range of both military and general industrial applications. KD connectors are designed, manufactured and tested to MIL-DTL-STANDARD, the military detailed specification.

# **KD / MIL-DTL-5015 Series**

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## **Contents**

<b>Introduction</b>	<b>2</b>
<b>Connector Design</b>	<b>2</b>
<b>Technical Data</b>	<b>3</b>
<b>Matching Guide</b>	<b>5</b>
<b>Pin / Socket Inserts</b>	<b>5</b>
<b>How to Order</b>	<b>6</b>
<b>Connector Arrangements</b>	<b>7</b>
<b>Connector Dimensions</b>	
KD3100	<b>20</b>
KD3102	<b>21</b>
KD3101	<b>22</b>
KD3106	<b>24</b>
KD3108	<b>25</b>
KD3103	<b>27</b>
KD25183	<b>27</b>
<b>Exploded View</b>	
KD3102B	<b>28</b>
KD3106B	<b>29</b>
KD3108B	<b>29</b>
<b>Accessories</b>	<b>30</b>
<b>Components</b>	<b>33</b>

# KD / MIL-DTL-5015 Series

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## Introduction

The KD MIL-DTL-5015 series I Connectors were designed for the connection of electric and electronic device and KD connectors are used in wide range of both military and general industrial applications thanks to their high quality in intermatibility and reliability with low price. KD connectors are designed, manufactured and tested to MIL-DTL-5015, the Military Detailed Specification.

## Applications

- Railroad Equipment
- Industrial Machinery
- Engines
- Battery Systems
- Motion Control
- Power Generators
- Mobile Equipments
- Earth Moving Equipment

## Connector design

MIL-DTL-5015 series I applies to the circular threaded electrical connectors with solder contacts. Shell is made with aluminum alloy diecasting with olive drab chromate and zinc plated finish prectecting the shell against environmental influences.

These connectors operate in temperatures of  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  ( $-67^{\circ}\text{F}$  to  $+257^{\circ}\text{F}$ ) under the harshest possible conditions.

The various classes and types of KD connectors are intended for application as follows.

- a. KD3100 : Receptacle intended for wall or bulkhead mounting and for use with conduit or cable clamp.
- b. KD3101 : Plug intended for use at the end of a cable where mounting provisions are not required.
- c. KD3102 : Receptacle intended for mounting on shielding boxes and equipment cases. They have no fittings and are for use with open wiring. They are nonenvironmental and are intended for use on boxes where environmental seal is achieved by some other means.
- d. KD3106 : Plug intended for use at the end of a cable to be mated with a receptacle.
- e. KD3108 :  $90^{\circ}$  plug intended for use at the end of a cable where space does not permit the use of a straight plug.
- f. KD25183 : Plug intended for use in applications where a potted seal around wires is required.
- g. Class A connectors are solid shell connectors intended for nonenvironmental applications.
- h. Class B connectors are split shell connectors intended for nonenvironmental applications. The split shell provides greater accessibility to solder connections, as may be needed if the cable is contained in conduit.
- i. If air leakage requirements are critical, a resilient insert receptable should be used or the connector should be potted.

# KD / MIL-DTL-5015 Series

## Technical Data

### Electrical Data

#### Contact rating (Assembled in insulator)

Contact size	Current A
16	13
12	23
8	46
4	80
0	150

### Insulation resistance

The insulation resistance to be tested per EIA364.21 and MIL-DTL-5015 3.18 test condition B; DC500V/5000M $\Omega$  min

### Operating & Test voltage

The dielectric withstanding voltage to be tested per EIA364.20 and MIL-DTL-5015 3.11

Service rating	Test Voltage AC(rms)		Operating Voltage	
	sea level	70,000ft	DC	AC(rms)
Inst	1000	260	250	200
A	2000	360	700	500
D	2800	400	1250	900
E	3500	440	1750	1250
B	4500	480	2450	1750
C	7000	560	4200	3000

### Contact resistance

Voltage drops to be tested with the coupling ring removed per EIA364.06 and MIL-DTL-5015 3.15

Contact size	Test current A	Potential drop max.mV	Contact resistance max.m $\Omega$
16	13	49	6
12	23	42	3
8	46	26	1
4	80	23	0.5
0	150	21	0.2

### Mechanical Features

#### Ambient temperature

-55°C/+125°C

### Humidity

14-day 71°C $\pm$ 2°C to 95% $\pm$ 3% humidity testing per EIA364.31 Method II and MIL-DTL-5015 3.14

### Durability

Test mating / unmating 100 times at the speed of max 60 times / hour.

Per EIA364.09 and MIL-DTL-5015 3.16

### Salt spray

Unmated connectors and contacts meet 48hour exposure per EIA364.26 test condition letter B and MIL-DTL-5015 3.17

### Sine vibration

10 $\mu$ s max at 10 to 500Hz(15g) discontinuity per EIA364.28 test condition II and MIL-DTL-5015 3.12.1

### Shock

50g's/11ms duration, three major axes 10 $\mu$ s max discontinuity per EIA364.27 test condition A and MIL-DTL-5015 3.13

### Contact retention

The contact retention to be tested per EIA364.29 and MIL-DTL-5015 3.10

Contact size	Test force N (lbs)
16	44.5 (10)
12	66.7 (15)
8	89.0 (20)
4	89.0 (20)
0	111.2 (25)

# KD / MIL-DTL-5015 Series

## Contact engagement and separation forces

The Contact engagement and separation forces to be tested per EIA364.37 and MIL-DTL 5015 3.25

Contact mating end size	Contact engagement and separation force		
	Min N (lbs)	Average N (lbs)	MAX N (lbs)
16	0.6 (0.13)	2.06(0.46)	13.3 (3)
12	0.8 (0.18)	3.50(0.79)	22.2 (5)
8	1.4 (0.31)	-	44.5 (10)
4	2.8 (0.63)	-	66.7 (15)
0	4.2 (0.94)	-	89.0 (20)

## Full Range of Contact size and contact arrangements

Contact size	Pin O.D mm	Solder pot mm
16	1.6	2.0
12	2.4	3.0
8	3.6	5.4
4	5.7	8.5
0	9.1	12.0

## Wire sealing range

Contact size	Wire range accommodations			
	Insulation O.D limit	Wire size	Metric mm <sup>2</sup>	Conductor mm
16	1.6~3.3	16~20	1.3max	1.25~1.7
12	2.9~4.3	12~14	3.5max	1.95~2.4
8	4.2~6.5	8~10	8.0max	4.3~4.8
4	6.9~9.4	4~6	22.0max	5.2~6.0
0	10.5~14.0	0~2	50.0max	9.6~10.7

## Materials

### Shell

Material	Aluminum alloy Die Castings & Aluminum alloy
Finish	Olive drab chromate coating over zinc plating
Alternative finish	Black coating over zinc plating(RoHS) Electroless nickel

### Insulator and grommet

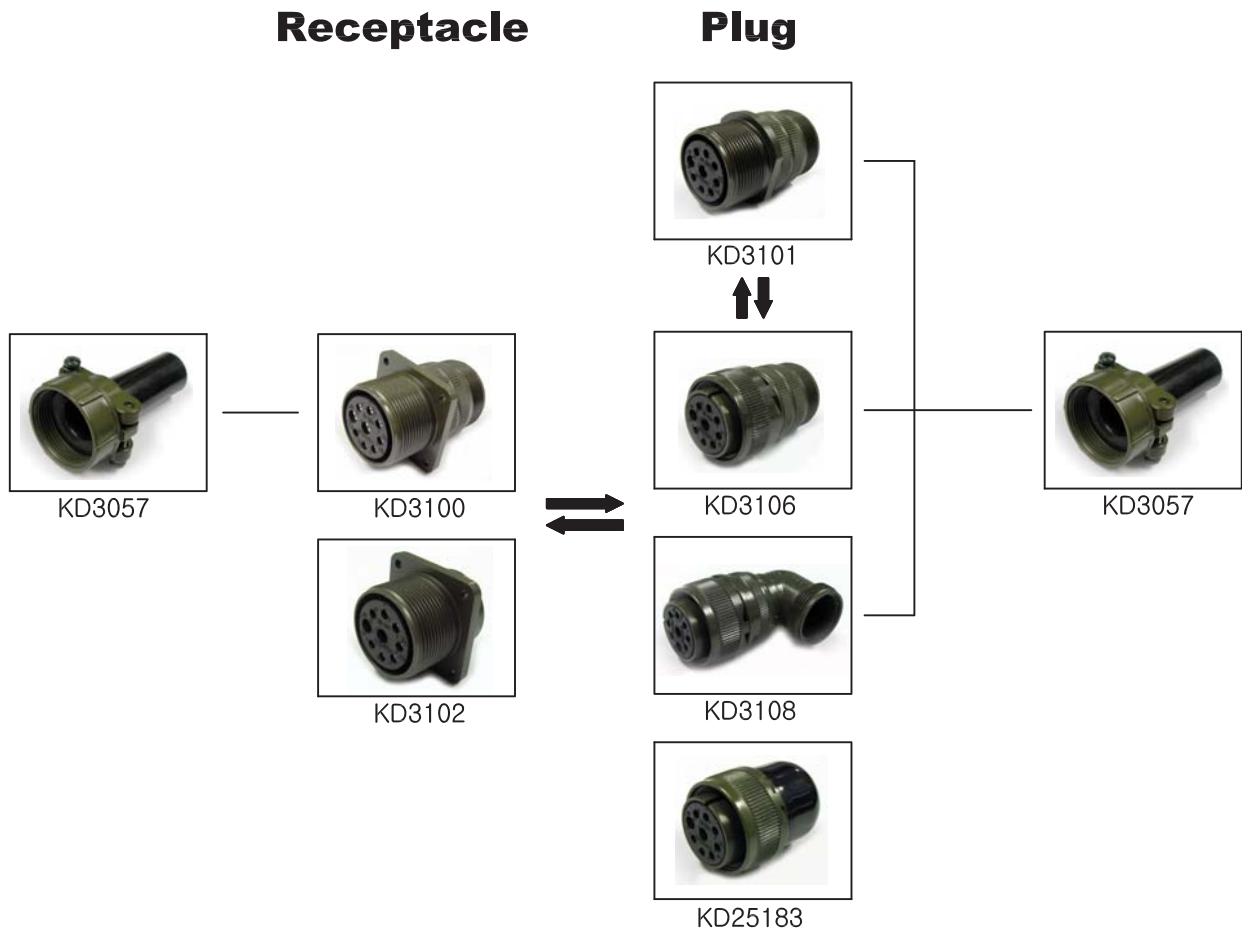
Insulator	Synthetic rubber & polychloroprene Synthetic plastic
Grommet	Synthetic rubber & polychloroprene

### Contact

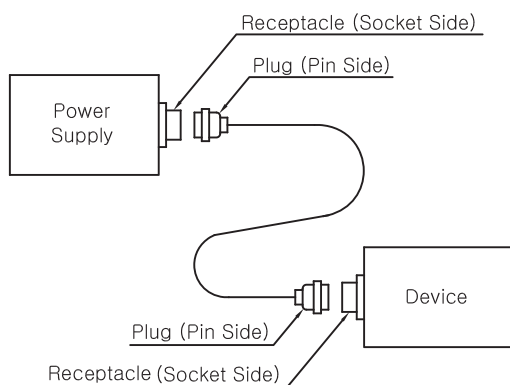
Material	Copper alloy
Finish	Silver plating Gold plating

# KD / MIL-DTL-5015 Series

## Matching Guide



## Pin or Socket Inserts



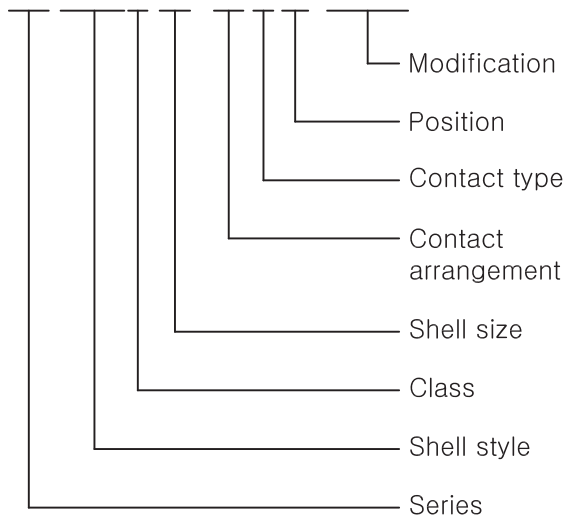
Connector combinations are formed with plugs and receptacles that are connected with pin and socket contacts. Either the receptacle or the plug can be provided with pin inserts or socket inserts. However, if one side is a pin insert, the mating side should be a socket insert. The type to use will be determined by the state of the equipment but it is generally recommended to use the socket on the output side of the equipment and pin on the input side.

# KD / MIL-DTL-5015 Series

## How to order

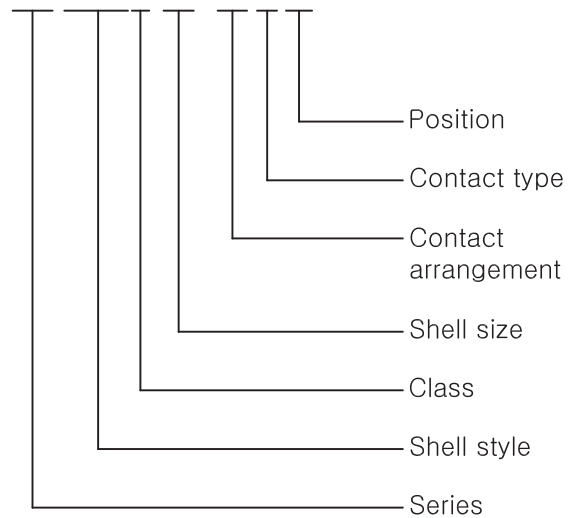
### KD Order Reference

KD 3102A 18-10 P W-\*\*(\*\*)



### MS Order Reference

MS 3102A 18-10 P W



### Series

- KD Kukdong circular connectors with threaded coupling  
MS Military Standard to latest MIL-DTL-5015 revision

### Shell style

- 3100 Wall mounting receptacle  
3101 Cable connecting plug  
3102 Box mounting receptacle  
3106 Straight plug  
3108 90° plug  
25183 Potting seal plug

### Class

- A Solid shell solder contact connectors.  
B Split shell solder contact connectors.  
E/F Environmental with resilient insulators and integral cable clamp.  
P Environment resistant potted solder contact connectors.  
R Environmental with resilient insulators and shortened lightweight endbell.

### Shell size

- 10SL, 12s, 12, 14s, 16s, 16, 18  
20, 22, 24, 28, 32, 36, 40

### Contact arrangement

See page 7~18

### Contact type

- P - Pin contact  
S - Socket contact

### Position

Alternate insert position(W,X,Y or Z)  
Leave Blank for Normal position  
See page 7~9

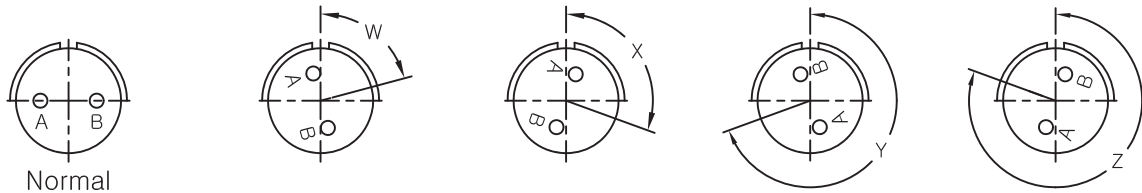
### Modification

- without code Olive drab over zinc plating (standard)  
A01 Black over zinc/nickel plating  
A02 Black over zinc plating (RoHS compliant)  
A03 Electroless nickel plating  
F80 Crimp AWG contacts

# KD / MIL-DTL-5015 Series

## Contact Arrangements Alternate Insert Positions

※ View shows pin front side or socket rear side



Shell Size	Insert Number	Contacts							Alternate pos.				
		Tot	20	16	12	8	4	0	W	X	Y	Z	
10SL	10SL-3	3	3										
	10SL-4	2	2										
12s	12s-3	2	2					70	145	215	290		
	12s-4	1	1										
	12SA10	4	4										
12	12-5	1			1								
14s	14s-1	3	3										
	14s-2	4	4						120	240			
	14s-4	1	1										
	14s-5	5	5						110				
	14s-6	6	6										
	14s-7	3	3					90	180	270			
	14s-9	2	2					70	145	215	290		
	14SA10	10	10										
14	14-3	1				1							
16s	16s-1	7	7					80			280		
	16s-4	2	2					35	110	250	325		
	16s-5	3	3					70	145	215	290		
	16s-8	5	5						170	265			
	16s-01	8	8										
16	16-9	4		2	2			35	110	250	325		
	16-10	3			3			90	180	270			
	16-11	2			2			35	110	250	325		
18	18-1	10		10				70	145	215	290		
	18-3	2			2			35	110	250	325		
	18-4	4		4				35	110	250	325		
	18-5	3		1	2			80	110	250	280		
	18-8	8		7	1			70			290		
	18-9	7		5	2			80	110	250	280		

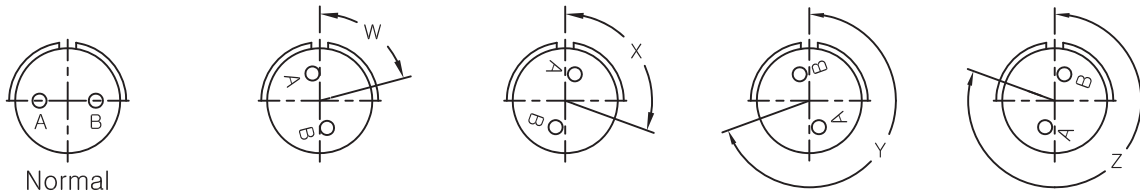
Shell Size	Insert Number	Contacts							Alternate pos.				
		Tot	20	16	12	8	4	0	W	X	Y	Z	
18	18-10	4			4					120	240		
	18-11	5			5				170	265			
	18-12	6		6				80			280		
	18-19	10		10					120	240			
	18-20	5		5				90	180	270			
	18-21	3			3								
	18-22	3		3				70	145	215	290		
	20	20-2	1						1				
20	20-3	3			3			70	145	215	290		
	20-4	4			4			45	110	250			
	20-7	8		8				80	110	250	280		
	20-11	13		13									
	20-15	7			7			80			280		
	20-16	9		7	2			80	110	250	280		
	20-17	6		1	5			90	180	270			
	20-18	9		6	3			35	110	250	325		
	20-19	3				3		90	180	270			
	20-22	6		3		3		80	110	250	280		
	20-23	2				2		35	110	250	325		
	20-24	4		2		2		35	110	250	325		
	20-27	14		14				35	110	250	325		
	20-29	17		17				80			280		
	20-33	11		11									
	20-01	10		10									
	20A24	24	24										
20A48	19		19						80	280			
22	22-1	2				2		35	110	250	325		
	22-2	3				3		70	145	215	290		
	22-5	6		4	2			35	110	250	325		
	22-7	1						1					



# KD / MIL-DTL-5015 Series

## Contact Arrangements Alternate Insert Positions

※ View shows pin front side or socket rear side



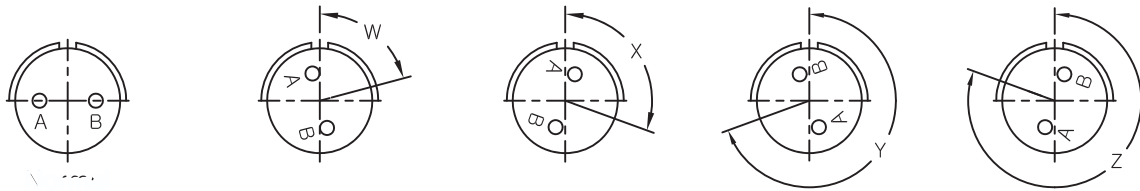
Shell Size	Insert Number	Contacts						Alternate pos.				
		Tot	20	16	12	8	4	0	W	X	Y	Z
22	22-8	2			2				35	110	250	325
	22-9	3			3				70	145	215	290
	22-10	4		4					35	110	250	325
	22-14	19		19					80	110	250	280
	22-19	14		14					80	110	250	280
	22-22	4					4			110	250	
	22-23	8			8				35		250	
24	24-2	7			7				80			280
	24-5	16		16					80	110	250	280
	24-7	16		14	2				80	110	250	280
	24-9	2					2		35	110	250	325
	24-10	7				7			80			280
	24-11	9			6	3			35	110	250	325
	24-12	5			3		2		80	110	250	280
	24-20	11		9	2				80	110	250	280
	24-21	10		9		1			80	110	250	280
	24-22	4				4			45	110	250	
	24-28	24		24					80	110	250	280
	24-67	19			19				80			335
	24B24	12			12							
28	28-2	14		12	2				35	110	250	325
	28-3	3				3			70	145	215	290
	28-5	5		2	1		2		35	110	250	325
	28-6	3					3		70	145	215	290
	28-9	12		6	6				80	110	250	280
	28-10	7			3	2	2		80	110	250	280
	28-11	22		18	4				80	110	250	280
	28-12	26		26					90	180	270	
	28-15	35		35					80	110	250	280
	28-16	20		20					80	110	250	280

Shell Size	Insert Number	Contacts						Alternate pos.						
		Tot	20	16	12	8	4	0	W	X	Y	Z		
28	28-17	15		15						80	110	250	280	
	28-19	10		6	4					80	110	250	280	
	28-20	14		4	10					80	110	250	280	
	28-21	37		37						80	110	250	280	
	28-22	6		3			3			70	145	215	290	
	28-51	12			12					80	135	195		
	28-72	72	72							72	144	216	288	
	28A16	9		5			4							
	32	32-1	5			3			2		80	110	250	280
32-3		9		4	2		2	1		80	110	250	280	
32-5		2						2		35	110	250	325	
32-6		23		16	2	3	2			80	110	250	280	
32-7		35		28	7					80	125	235	280	
32-8		30		24	6					80	125	235	280	
32-15		8			6			2		35	110	250	280	
32-17		4						4		45	110	250		
32-59		42		40		2								
32-63		5						5						
32-101		101	101							30	142			
32A10		54		54										
36		36-1	22		18	4					80	110	250	280
		36-3	6			3			3		70	145	215	290
	36-4	3						3		70	145	215	290	
	36-5	4						4		120	240			
	36-8	47		46	1					80	110	250	280	
	36-9	31		14	14	2	1			80	125	235	280	
	36-10	48		48						80	125	235	280	
	36-77	7						7						
	36-78	14		2		12				35	106	254	325	
40	40-56	85		85						72	144	216	288	

# KD / MIL-DTL-5015 Series

## Contact Arrangements Alternate Insert Positions

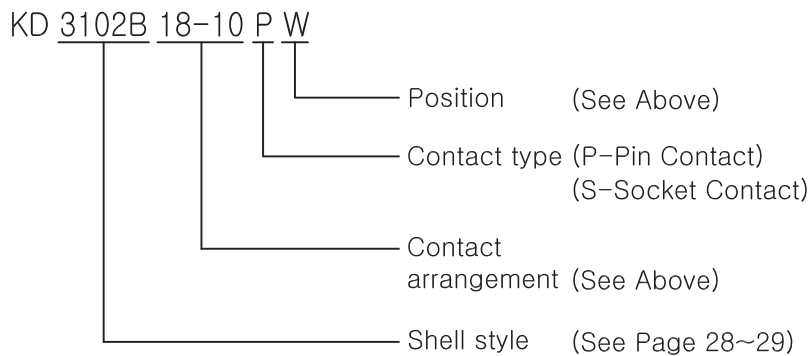
※ View shows pin front side or socket rear side



Shell Size	Insert Number	Contacts						Alternate pos.				
		Tot	20	16	12	8	4	0	W	X	Y	Z
14s	14s-2	4	4						120	240		
	14s-5	5	5						110			
	14s-6	6	6									
16	16-10	3		3				90	180	270		
18	18-1	10	10					70	145	215	290	
	18-8	8	7	1				70			290	
	18-10	4		4				120	240			
	18-12	6	6					80			280	
	18-19	10	10					120	240			
20	20-4	4		4				45	110	250		
	20-7	8	8					80	110	250	280	
	20-15	7		7				80			280	
	20-16	9	7	2				80	110	250	280	
	20-18	9	6	3				35	110	250	325	
	20-27	14	14					35	110	250	325	
	20-29	17	17					80			280	

Shell Size	Insert Number	Contacts						Alternate pos.				
		Tot	20	16	12	8	4	0	W	X	Y	Z
22	22-14	19	19						80	110	250	280
	22-19	14	14						80	110	250	280
	22-22	4				4			110	250		
	22-23	8		8					35		250	
24	24-2	7		7					80			280
	24-5	16	16						80	110	250	280
	24-10	7				7			80			280
	24-11	9		6	3				35	110	250	325
	24-28	24	24						80	110	250	280
28	28-2	14	12	2					35	110	250	325
	28-11	22	18	4					80	110	250	280
	28-15	35	35						80	110	250	280
	28-16	20	20						80	110	250	280
	28-20	14	4	10					80	110	250	280
	28-21	37	37						80	110	250	280
32	32-7	35	28	7					80	125	235	280
	32-17	4				4			45	110	250	
	32-22	54	54									
36	36-10	48	48						80	125	235	280

**NOTE : Split type for class B**



# KD / MIL-DTL-5015 Series

## Contact Arrangements

### Contact Size



### 1 CONTACT



Insert number	12S-4	12-5	14-3	14S-4
No. of contacts	1	1	1	1
Contact size	16	12	8	16
Service rating	D	D	A	D

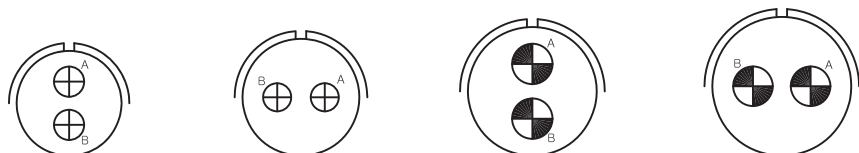


Insert number	16-12	20-2	22-7
No. of contacts	1	1	1
Contact size	4	0	0
Service rating	A	D	E

### 2 CONTACT

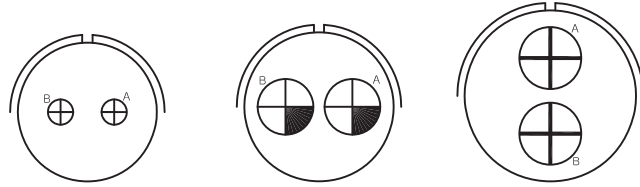


Insert number	10SL-4	12S-3	14S-9	16S-4
No. of contacts	2	2	2	2
Contact size	16	16	16	16
Service rating	A	A	A	D



Insert number	16-11	18-3	20-23	22-1
No. of contacts	2	2	2	2
Contact size	12	12	8	8
Service rating	A	D	A	D

# KD / MIL-DTL-5015 Series

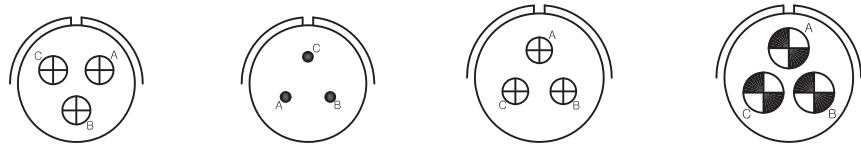


Insert number	22-8	24-9	32-5
No. of contacts	2	2	2
Contact size	12	4	0
Service rating	E	A	D

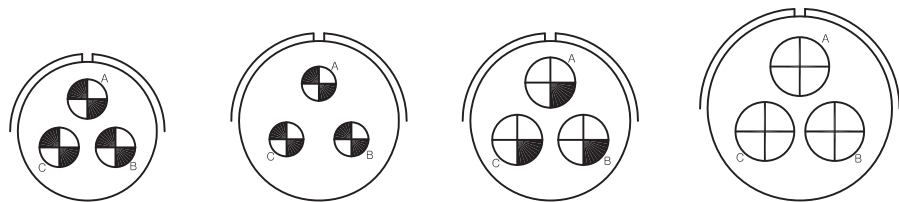
## 3 CONTACT



Insert number	10SL-3	14S-1	16S-5	16-10
No. of contacts	3	3	3	3
Contact size	16	16	16	12
Service rating	A	A	A	A



Insert number	18-21	18-22	20-3	20-19
No. of contacts	3	3	3	3
Contact size	12	16	12	8
Service rating	A	D	D	A



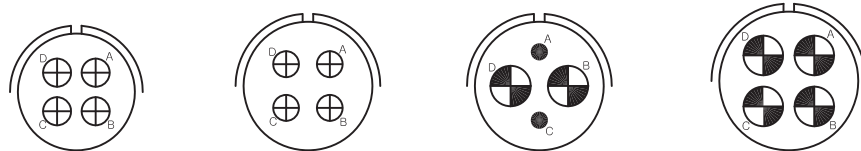
Insert number	22-2	28-3	28-6	36-4
No. of contacts	3	3	3	3
Contact size	8	8	4	0
Service rating	D	E	D	D(A) A(B,C)

# KD / MIL-DTL-5015 Series

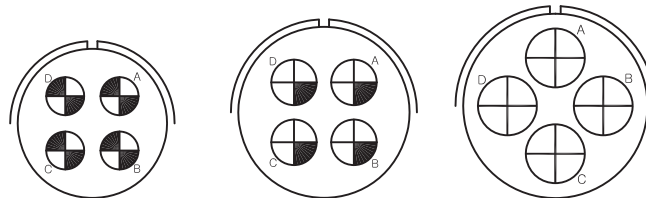
## 4 CONTACT



Insert number	12SA10	14S-2	16-9	18-4
No. of contacts	4	4	4	4
Contact size	16	16	2-16, 2-12	16
Service rating	INST	INST	A	D



Insert number	18-10	20-4	20-24	22-22
No. of contacts	4	4	4	4
Contact size	12	12	2-16, 2-8	8
Service rating	A	D	A	A



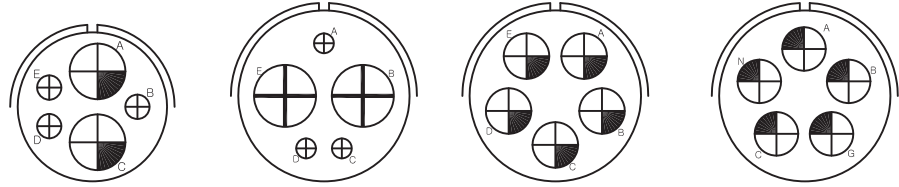
Insert number	24-22	32-17	36-5
No. of contacts	4	4	4
Contact size	8	4	0
Service rating	D	D	A

## 5 CONTACT



Insert number	14s-5	16s-8	18-11	18-20
No. of contacts	5	5	5	5
Contact size	16	16	12	16
Service rating	INST	A	A	A

# KD / MIL-DTL-5015 Series

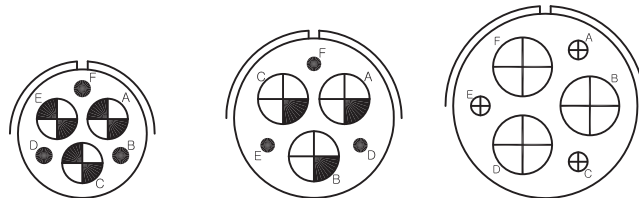


Insert number	24-12	32-1	32-63	32A5
No. of contacts	5	5	5	5
Contact size	3-12, 2-4	3-12, 2-0	4	4
Service rating	A	E(A) D(B,C,D,E)	D	D

## 6 CONTACT



Insert number	14S-6	18-12	20-8	20-17
No. of contacts	6	6	6	6
Contact size	16	16	4-16, 2-8	1-16, 5-12
Service rating	INST	A	INST	A



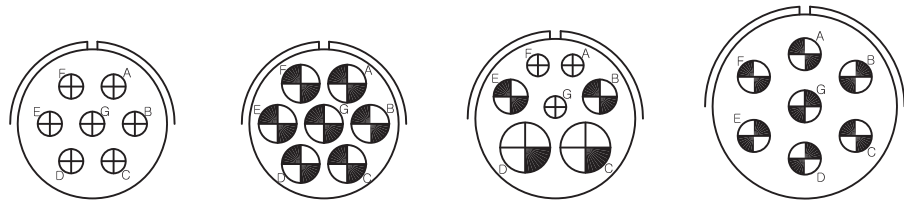
Insert number	20-22	28-22	36-3
No. of contacts	6	6	6
Contact size	3-16, 3-8	3-16, 3-4	12-3, 3-0
Service rating	A	D	D

## 7 CONTACT



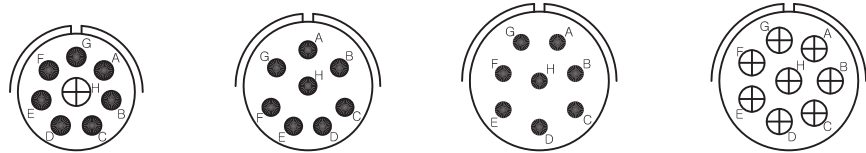
Insert number	14SA7	16s-1	18-9	20-15
No. of contacts	7	7	7	7
Contact size	16	16	5-16, 2-12	12
Service rating	INST	A	INST	A

# KD / MIL-DTL-5015 Series

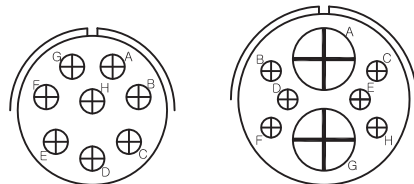


Insert number	24-2	24-10	28-10	36-77
No. of contacts	7	7	7	7
Contact size	12	8	3-12, 2-8, 2-4	4
Service rating	D	A	D(G) A(A,B,C,D,E,F)	D

## 8 CONTACT

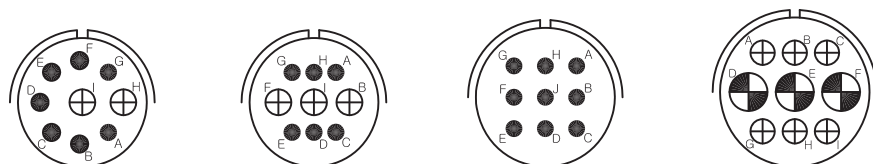


Insert number	18-8	20-7	22-18	22-23
No. of contacts	8	8	8	8
Contact size	7-16, 1-12	16	16	12
Service rating	A	D(A,B,G,H) A(All others)	D(All others) A(C,D,E)	D(H) A(All others)



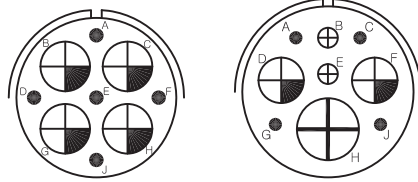
Insert number	24-6	32-15
No. of contacts	8	8
Contact size	12	6-12, 2-0
Service rating	D(A,G,H) A(All others)	D

## 9 CONTACT



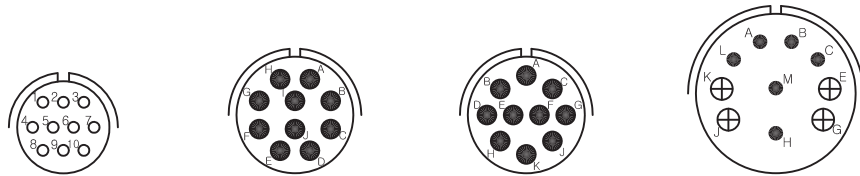
Insert number	20-16	20-18	22-20	24-11
No. of contacts	9	9	9	9
Contact size	7-16, 2-12	6-16, 3-12	16	6-12, 3-8
Service rating	A	A	A	A

# KD / MIL-DTL-5015 Series



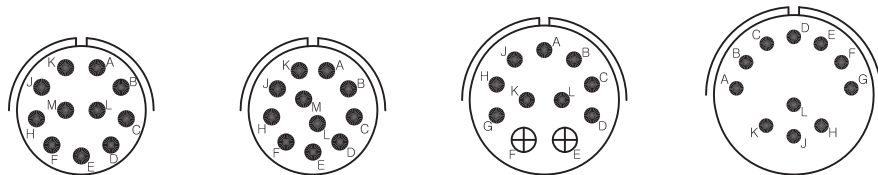
Insert number	28A16	32-3
No. of contacts	9	9
Contact size	5-16, 4-4	4-16, 2-12, 2-4, 1-0
Service rating	A(E) INST(All others)	D

## 10 CONTACT



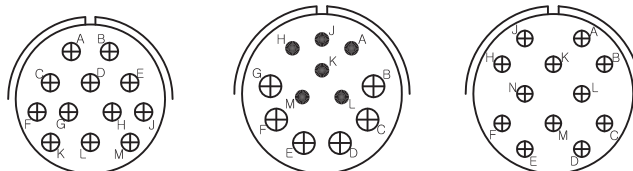
Insert number	14SA10	18-1	18-19	28-19
No. of contacts	10	10	10	10
Contact size	20	16	16	6-16, 4-12
Service rating	INST	A(B,C,F,G) INST(All others)	A	D(A,B) B(H,M) A(All others)

## 11 CONTACT



Insert number	20-31	20-33	24-20	28-14
No. of contacts	11	11	11	6
Contact size	16	16	9-16, 2-12	16
Service rating	A	A	D	D

## 12 CONTACT

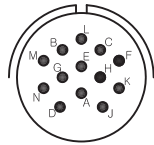


Insert number	24B24	28-9	28-51
No. of contacts	12	12	12
Contact size	12	6-16, 6-12	12
Service rating	A	D	D



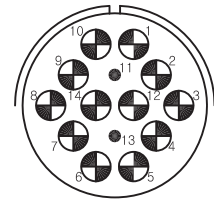
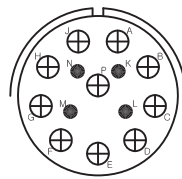
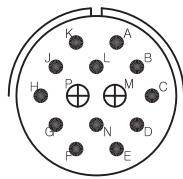
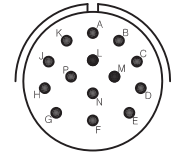
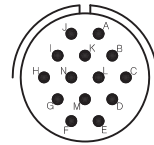
# KD / MIL-DTL-5015 Series

## 13 CONTACT



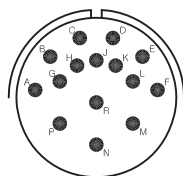
Insert number	20-11	20-27	22-19
No. of contacts	13	14	14
Contact size	16	16	16
Service rating	INST	A	A

## 14 CONTACT

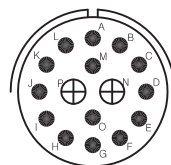
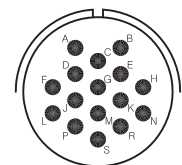


Insert number	28-2	28-20	36-78
No. of contacts	14	14	14
Contact size	12-16, 2-12	4-16, 10-12	2-16, 12-8
Service rating	D	A	D

## 15 CONTACT



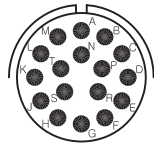
## 16 CONTACT



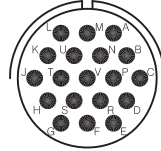
Insert number	28-17	24-5	24-7
No. of contacts	15	16	16
Contact size	16	16	14-16, 2-12
Service rating	B(R) D(M,N,P) A(All others)	A	A

# KD / MIL-DTL-5015 Series

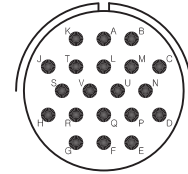
## 17 CONTACT



## 19 CONTACT

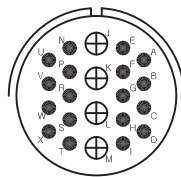


## 20 CONTACT

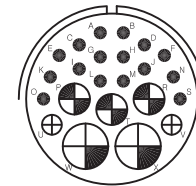
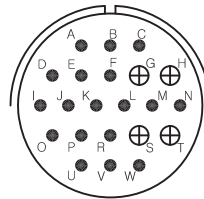


Insert number	20-29	22-14	28-16
No. of contacts	17	19	20
Contact size	16	16	16
Service rating	A	A	A

## 22 CONTACT

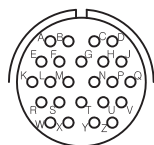


## 23 CONTACT

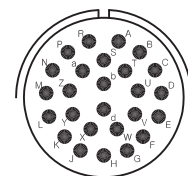
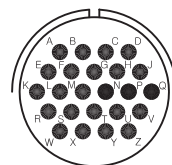


Insert number	28-11	36-1	32-6
No. of contacts	22	22	23
Contact size	18-16, 4-12	18-16, 4-12	16-16, 2-12, 3-8, 2-4
Service rating	A	D	A

## 24 CONTACT



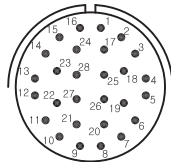
## 26 CONTACT



Insert number	20A24	24-28	28-12
No. of contacts	24	24	26
Contact size	20	16	16
Service rating	INST	INST	A

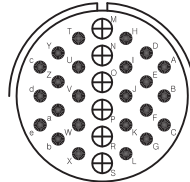
# KD / MIL-DTL-5015 Series

## 28 CONTACT

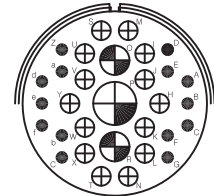


Insert number	24A28	32-8	36-9
No. of contacts	28	30	31
Contact size	16	24-16, 6-12	14-16, 14-12, 2-8, 1-4
Service rating	INST	A	A

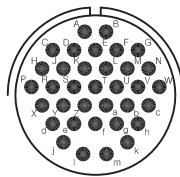
## 30 CONTACT



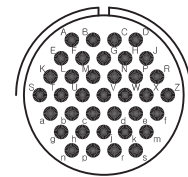
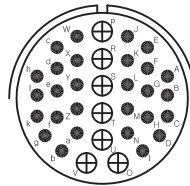
## 31 CONTACT



## 35 CONTACT

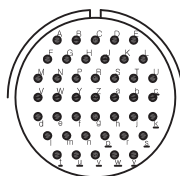


## 37 CONTACT

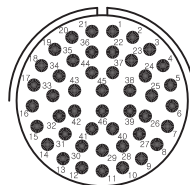


Insert number	28-15	32-7	28-21
No. of contacts	35	35	37
Contact size	16	28-16, 7-12	16
Service rating	A	A(all others) INST(A,B,h,i)	A

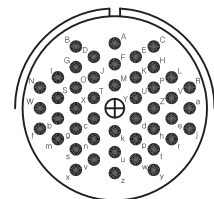
## 43 CONTACT



## 46 CONTACT



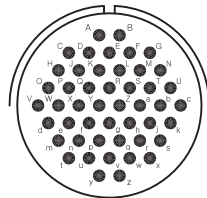
## 47 CONTACT



Insert number	28A51	32-73	36-8
No. of contacts	43	46	47
Contact size	16	16	46-16, 1-12
Service rating	A	A	A

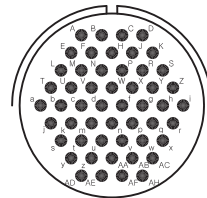
# KD / MIL-DTL-5015 Series

## 48 CONTACT

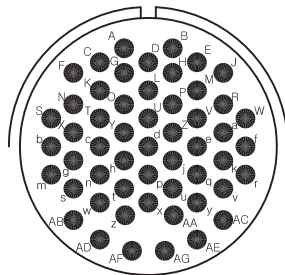


Insert number	36-10	36-52
No. of contacts	48	52
Contact size	16	16
Service rating	A	A

## 52 CONTACT

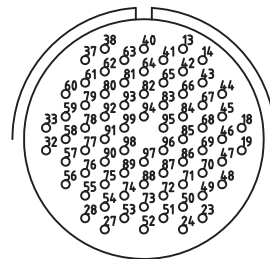


## 54 CONTACT

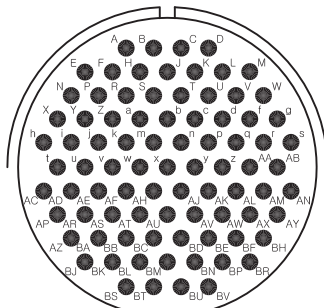


Insert number	32A10 & 32-22	28-72
No. of contacts	54	72
Contact size	16	20
Service rating	A	INST

## 72 CONTACT

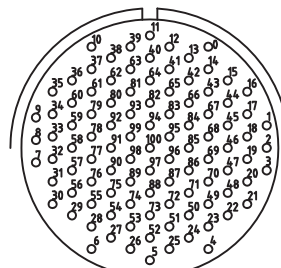


## 85 CONTACT



Insert number	40-56	32-101
No. of contacts	16	101
Contact size	85	20
Service rating	A	INST

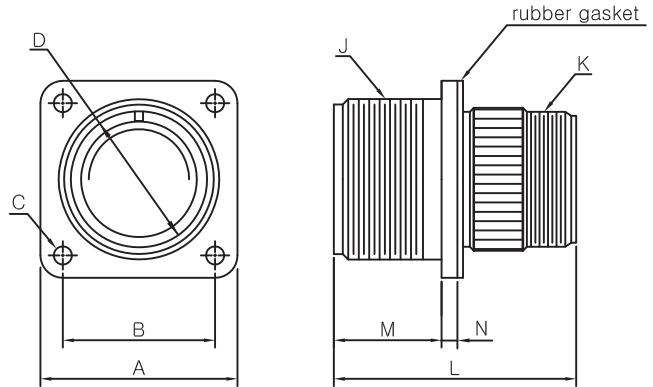
## 101 CONTACT



# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3100 Class A  
MS3100 Class A  
Wall mounting receptacle



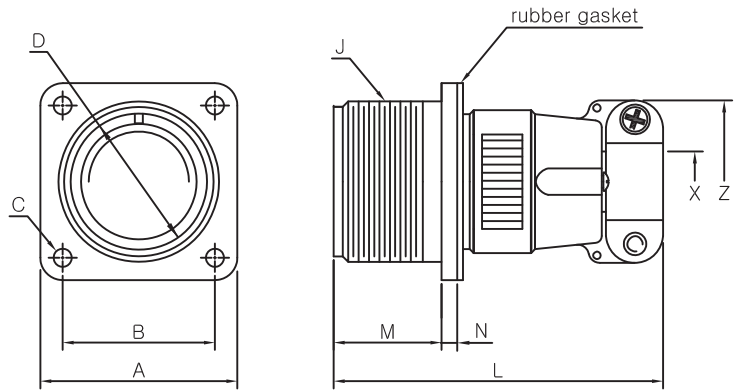
Shell size	□A	□B	∅C	∅D	J		K		L	M	N	
	±0.79	±0.13	+0.25 -0.13	+0.38	THD-2A		THD-2A		max	+0.79	max	min
10SL	25.40	18.26	3.05	11.38	5/8-24UNEF		5/8-24UNEF		38.89	14.27	3.96	1.57
12s	27.79	20.62	3.05	14.15	3/4-20UNEF		5/8-24UNEF		42.88	14.27	3.96	1.57
12	27.79	20.62	3.05	14.15	3/4-20UNEF		5/8-24UNEF		52.37	19.05	3.96	1.57
14s	30.18	23.01	3.05	17.32	7/8-20UNEF		3/4-20UNEF		42.88	14.27	3.96	1.57
14	30.18	23.01	3.05	17.32	7/8-20UNEF		3/4-20UNEF		52.37	19.05	3.96	1.57
16s	32.54	24.61	3.05	20.50	1	-20UNEF	7/8-20UNEF		42.88	14.27	3.96	1.57
16	32.54	24.61	3.05	20.50	1	-20UNEF	7/8-20UNEF		52.37	19.05	3.96	1.57
18	34.93	26.97	3.05	23.67	1	1/8-18UNEF	1	-20UNEF	52.37	19.05	5.16	2.39
20	38.10	29.36	3.05	26.87	1	1/4-18UNEF	1	3/16-18UNEF	55.58	19.05	5.16	2.39
22	41.28	31.75	3.05	30.02	1	3/8-18UNEF	1	3/16-18UNEF	55.58	19.05	5.16	2.39
24	44.45	34.93	3.73	33.20	1	1/2-18UNEF	1	7/16-18UNEF	58.72	20.62	5.16	2.39
28	50.80	39.67	3.73	38.76	1	3/4-18UNS	1	7/16-18UNEF	58.72	20.62	5.16	2.39
32	57.15	44.45	4.39	45.11	2	-18UNS	1	3/4-18UNS	61.93	22.23	9.12	3.18
36	63.50	49.23	4.39	50.67	2	1/4-16UN	2	-18UNS	61.93	22.23	9.12	3.18
40	69.85	55.58	4.39	57.02	2	1/2-16UN	2	1/4-16UN	61.93	22.23	9.12	3.18

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3100 Class E, F  
 MS3100 Class E, F  
 Wall mounting receptacle  
 with integral cable clamp  
 (grommet included)

Used to carry wire thru walls  
 or bulkheads or to provide  
 a means of disconnection  
 at a bulkhead



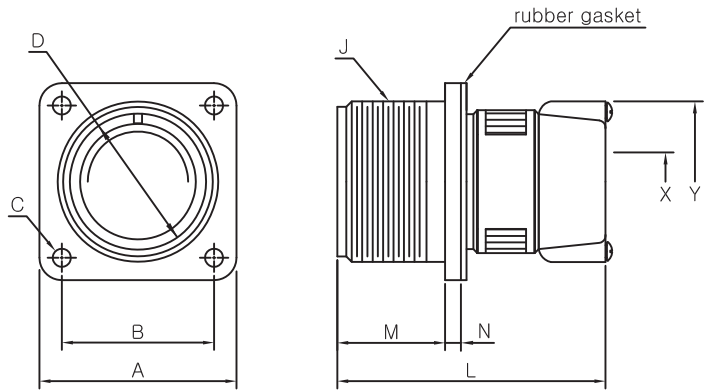
Shell size	□A	□B	∅C	∅D	J	L	M	N	X	Z
	±0.79	±0.13	+0.25 -0.13	+0.38	THD-2A	max	+0.79	max min	min	±0.79
10SL	25.40	18.26	3.05	11.38	5/8-24UNEF	57.15	14.27	3.96 1.98	7.14	22.23
12s	27.79	20.62	3.05	14.15	3/4-20UNEF	57.15	14.27	3.96 1.98	7.14	22.23
12	27.79	20.62	3.05	14.15	3/4-20UNEF	66.68	19.05	3.96 1.98	7.14	22.23
14s	30.18	23.01	3.05	17.32	7/8-20UNEF	57.15	14.27	3.96 1.98	10.31	26.97
14	30.18	23.01	3.05	17.32	7/8-20UNEF	66.68	19.05	3.96 1.98	10.31	26.97
16s	32.54	24.61	3.05	20.50	1 -20UNEF	57.15	14.27	3.96 1.98	12.70	29.36
16	32.54	24.61	3.05	20.50	1 -20UNEF	66.68	19.05	3.96 1.98	12.70	29.36
18	34.93	26.97	3.05	23.67	1 1/8-18UNEF	68.28	19.05	5.16 2.39	13.49	31.75
20	38.10	29.36	3.05	26.87	1 1/4-18UNEF	69.85	19.05	5.16 2.39	16.66	37.31
22	41.28	31.75	3.05	30.02	1 3/8-18UNEF	69.85	19.05	5.16 2.39	19.05	37.31
24	44.45	34.93	3.73	33.20	1 1/2-18UNEF	75.41	20.62	5.16 2.39	19.84	42.88
28	50.80	39.67	3.73	38.76	1 3/4-18UNS	76.99	20.62	5.16 2.39	23.42	42.88
32	57.15	44.45	4.39	45.11	2 -18UNS	76.99	22.23	9.12 3.18	29.36	51.59
36	63.50	49.23	4.39	50.67	2 1/4-16UN	83.34	22.23	9.12 3.18	31.75	57.94

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3100 Class R  
 MS3100 Class R  
 Wall mounting receptacle  
 (grommet included)

R type has a shorter and  
 lightweight endbell than  
 E, F type

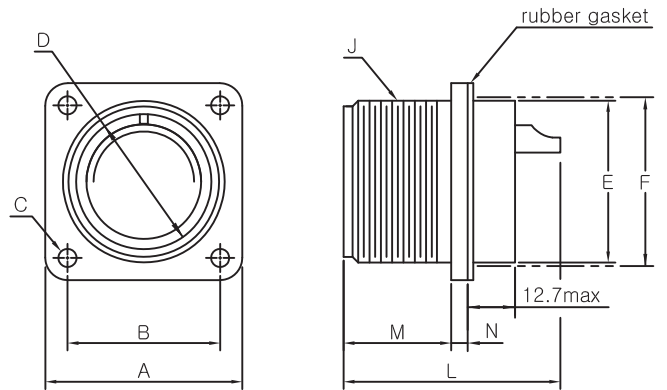


Shell size	□A	□B	∅C	∅D	J	L	M	N	X	Y
	±0.79	±0.13	+0.25 -0.13	+0.38	THD-2A	max	+0.79	max min	min	±0.25
10SL	25.40	18.26	3.05	11.38	5/8-24UNEF	46.69	14.27	3.96 1.98	7.14	23.83
12s	27.79	20.62	3.05	14.15	3/4-20UNEF	46.69	14.27	3.96 1.98	7.14	23.83
12	27.79	20.62	3.05	14.15	3/4-20UNEF	55.40	19.05	3.96 1.98	7.14	23.83
14s	30.18	23.01	3.05	17.32	7/8-20UNEF	46.69	14.27	3.96 1.98	10.31	28.58
14	30.18	23.01	3.05	17.32	7/8-20UNEF	55.40	19.05	3.96 1.98	10.31	28.58
16s	32.54	24.61	3.05	20.50	1 -20UNEF	46.69	14.27	3.96 1.98	12.70	30.96
16	32.54	24.61	3.05	20.50	1 -20UNEF	55.40	19.05	3.96 1.98	12.70	30.96
18	34.93	26.97	3.05	23.67	1 1/8-18UNEF	57.94	19.05	5.16 2.39	13.49	35.71
20	38.10	29.36	3.05	26.87	1 1/4-18UNEF	57.94	19.05	5.16 2.39	16.66	38.10
22	41.28	31.75	3.05	30.02	1 3/8-18UNEF	57.94	19.05	5.16 2.39	19.05	39.67
24	44.45	34.93	3.73	33.20	1 1/2-18UNEF	57.94	20.62	5.16 2.39	19.84	46.84
28	50.80	39.67	3.73	38.76	1 3/4-18UNS	57.94	20.62	5.16 2.39	23.42	46.84
32	57.15	44.45	4.39	45.11	2 -18UNS	58.98	22.23	9.12 3.18	29.36	53.98
36	63.50	49.23	4.39	50.67	2 1/4-16UN	58.98	22.23	9.12 3.18	31.75	58.72

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3102 Class A  
MS3102 Class A  
Box mounting receptacle



Shell size	□A	□B	∅C	∅D	∅E	∅F	J	L	M	N	
	±0.79	±0.13	+0.25 -0.13	+0.38	-4.78	Mounting Hole	THD-2A	max	+0.79	max	min
10SL	25.40	18.26	3.05	11.38	19.86	20.62	5/8-24UNEF	30.25	14.27	3.96	1.57
12s	27.79	20.62	3.05	14.15	19.86	20.62	3/4-20UNEF	30.25	14.27	3.96	1.57
12	27.79	20.62	3.05	14.15	19.86	20.62	3/4-20UNEF	43.51	19.05	3.96	1.57
14s	30.18	23.01	3.05	17.32	23.01	23.83	7/8-20UNEF	30.25	14.27	3.96	1.57
14	30.18	23.01	3.05	17.32	23.01	23.83	7/8-20UNEF	43.51	19.05	3.96	1.57
16s	32.54	24.61	3.05	20.50	26.21	26.97	1 -20UNEF	30.25	14.27	3.96	1.57
16	32.54	24.61	3.05	20.50	26.21	26.97	1 -20UNEF	44.45	19.05	3.96	1.57
18	34.93	26.97	3.05	23.67	29.36	30.18	1 1/8-18UNEF	49.23	19.05	5.16	2.39
20	38.10	29.36	3.05	26.87	32.56	33.32	1 1/4-18UNEF	49.23	19.05	5.16	2.39
22	41.28	31.75	3.05	30.02	35.71	36.53	1 3/8-18UNEF	49.23	19.05	5.16	2.39
24	44.45	34.93	3.73	33.20	38.91	39.97	1 1/2-18UNEF	49.23	20.62	5.16	2.39
28	50.80	39.67	3.73	38.76	45.26	46.02	1 3/4-18UNS	49.23	20.62	5.16	2.39
32	57.15	44.45	4.39	45.11	51.61	52.37	2 -18UNS	49.23	22.23	9.12	3.18
36	63.50	49.23	4.39	50.67	57.96	58.72	2 1/4-16UN	49.23	22.23	9.12	3.18
40	69.85	55.58	4.39	57.02	64.31	65.07	2 1/2-16UN	49.23	22.23	9.12	3.18

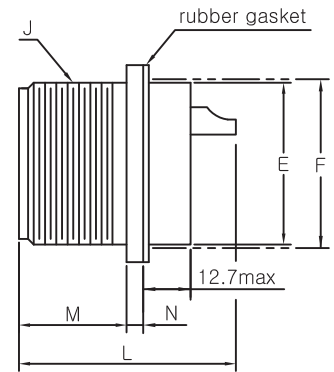
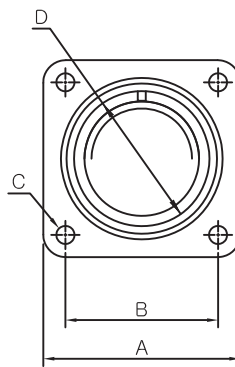


# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3102 Class R  
MS3102 Class R  
Box mounting receptacle

Used in junction boxes or as  
an integral part of equipment

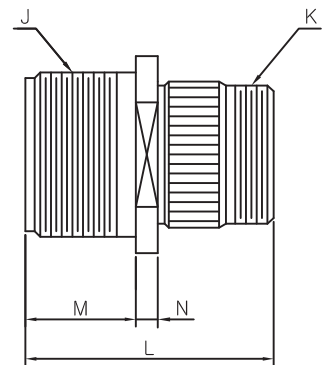
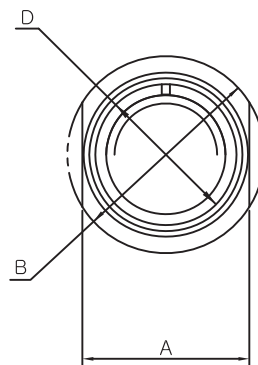


Shell size	□A	□B	∅C	∅D	∅E	∅F	J	L	M	N
	±0.79	±0.13	+0.25 -0.13	+0.38	-4.78	Mounting Hole	THD-2A	max	+0.79	max min
10SL	25.40	18.26	3.05	11.38	19.86	20.62	5/8-24UNEF	30.18	14.27	3.96 1.98
12s	27.79	20.62	3.05	14.15	19.86	20.62	3/4-20UNEF	30.18	14.27	3.96 1.98
12	27.79	20.62	3.05	14.15	19.86	20.62	3/4-20UNEF	41.28	19.05	3.96 1.98
14s	30.18	23.01	3.05	17.32	23.01	23.83	7/8-20UNEF	30.18	14.27	3.96 1.98
14	30.18	23.01	3.05	17.32	23.01	23.83	7/8-20UNEF	41.28	19.05	3.96 1.98
16s	32.54	24.61	3.05	20.50	26.21	26.97	1 -20UNEF	30.18	14.27	3.96 1.98
16	32.54	24.61	3.05	20.50	26.21	26.97	1 -20UNEF	41.28	19.05	3.96 1.98
18	34.93	26.97	3.05	23.67	29.36	30.18	1 1/8-18UNEF	49.23	19.05	5.16 2.39
20	38.10	29.36	3.05	26.87	32.56	33.32	1 1/4-18UNEF	49.23	19.05	5.16 2.39
22	41.28	31.75	3.05	30.02	35.71	36.53	1 3/8-18UNEF	49.23	19.05	5.16 2.39
24	44.45	34.93	3.73	33.20	38.91	39.97	1 1/2-18UNEF	49.23	20.62	5.16 2.39
28	50.80	39.67	3.73	38.76	45.26	46.02	1 3/4-18UNS	49.23	20.62	5.16 2.39
32	57.15	44.45	4.39	45.11	51.61	52.37	2 -18UNS	49.23	22.23	9.12 3.18
36	63.50	49.23	4.39	50.67	57.96	58.72	2 1/4-16UN	49.23	22.23	9.12 3.18

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3101 Class A  
 MS3101 Class A  
 Cable connecting plug



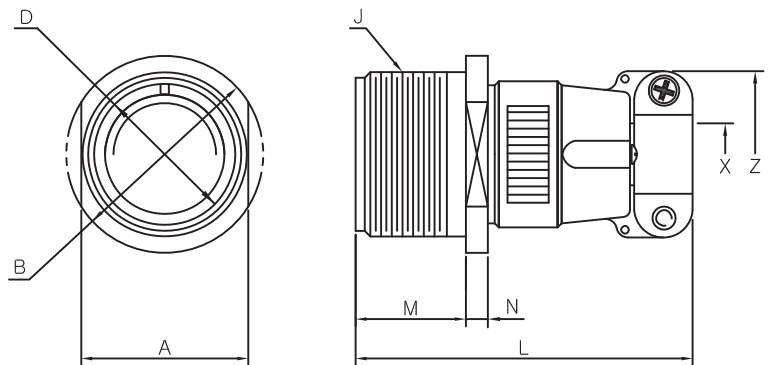
Shell size	A	∅B	∅D	J	K	L	M	N	
	max	max	-0.38	THD-2A	THD-2A	max	+0.79	max	min
10SL	16.26	24.61	11.38	5/8-24UNEF	5/8-24UNEF	38.89	14.27	3.96	1.57
12s	19.43	26.97	14.15	3/4-20UNEF	5/8-24UNEF	42.88	14.27	3.96	1.57
12	19.43	26.97	14.15	3/4-20UNEF	5/8-24UNEF	52.37	19.05	3.96	1.57
14s	22.61	29.36	17.32	7/8-20UNEF	3/4-20UNEF	42.88	14.27	3.96	1.57
14	22.61	29.36	17.32	7/8-20UNEF	3/4-20UNEF	52.37	19.05	3.96	1.57
16s	25.78	31.75	20.50	1 -20UNEF	7/8-20UNEF	42.88	14.27	3.96	1.57
16	25.78	31.75	20.50	1 -20UNEF	7/8-20UNEF	52.37	19.05	3.96	1.57
18	28.96	34.14	23.67	1 1/8-18UNEF	1 -20UNEF	52.37	19.05	5.16	2.39
20	32.13	37.31	26.87	1 1/4-18UNEF	1 3/16-18UNEF	55.58	19.05	5.16	2.39
22	35.31	40.49	30.02	1 3/8-18UNEF	1 3/16-18UNEF	55.58	19.05	5.16	2.39
24	38.48	43.66	33.20	1 1/2-18UNEF	1 7/16-18UNEF	58.72	20.62	5.16	2.39
28	44.83	50.01	38.76	1 3/4-18UNS	1 7/16-18UNEF	58.72	20.62	5.16	2.39
32	51.18	56.36	45.11	2 -18UNS	1 3/4-18UNS	61.93	22.23	9.12	3.18
36	57.53	62.71	50.67	2 1/4-16UN	2 -18UNS	61.93	22.23	9.12	3.18
40	63.88	69.06	57.02	2 1/2-16UN	2 1/4-18UN	61.93	22.23	9.12	3.18

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3101 Class E, F  
 MS3101 Class E, F  
 Cable connecting plug  
 (grommet included)

Used for cable extension  
 requirements, where  
 mounting provisions  
 are unnecessary



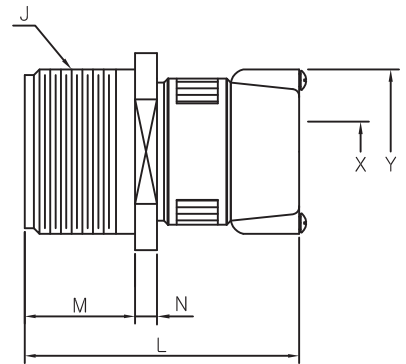
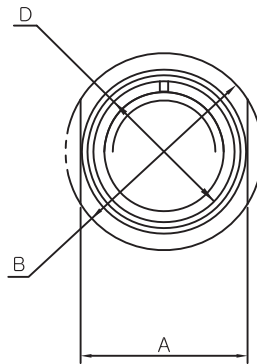
Shell size	A	∅B	∅D	J	L	M	N	X	Z
	max	max	-0.38	THD-2A	max	+0.79	max min	min	±0.79
10SL	16.26	26.97	11.38	5/8-24UNEF	57.15	14.27	3.96 1.57	7.14	22.23
12s	19.43	26.97	14.15	3/4-20UNEF	57.15	14.27	3.96 1.57	7.14	22.23
12	19.43	26.97	14.15	3/4-20UNEF	66.68	19.05	3.96 1.57	7.14	22.23
14s	22.61	29.36	17.32	7/8-20UNEF	57.15	14.27	3.96 1.57	10.31	26.97
14	22.61	29.36	17.32	7/8-20UNEF	66.68	19.05	3.96 1.57	10.31	26.97
16s	25.78	32.54	20.50	1 -20UNEF	57.15	14.27	3.96 1.57	12.70	29.36
16	25.78	32.54	20.50	1 -20UNEF	66.68	19.05	3.96 1.57	12.70	29.36
18	28.96	34.14	23.67	1 1/8-18UNEF	68.28	19.05	5.16 2.39	13.49	31.75
20	32.13	38.10	26.87	1 1/4-18UNEF	69.85	19.05	5.16 2.39	16.66	37.31
22	35.31	41.28	30.02	1 3/8-18UNEF	69.85	19.05	5.16 2.39	19.05	37.31
24	38.48	44.45	33.20	1 1/2-18UNEF	75.41	20.62	5.16 2.39	19.84	42.88
28	44.83	50.80	38.76	1 3/4-18UNS	76.99	20.62	5.16 2.39	23.42	42.88
32	51.18	57.15	45.11	2 -18UNS	76.99	22.23	9.12 3.18	29.36	51.59
36	57.53	63.50	50.67	2 1/4-16UN	83.34	22.23	9.12 3.18	31.75	57.94

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3101 Class R  
 MS3101 Class R  
 Cable connecting plug  
 (grommet included)

R type has a shorter  
 and lightweight endbell  
 than E, F type



Shell size	A	∅B	∅D	J	L	M	N	X	Y
	max	max	-0.38	THD-2A	max	+0.79	max min	min	±0.25
10SL	16.26	26.97	11.38	5/8-24UNEF	46.69	14.27	3.96 1.57	7.14	23.83
12s	19.43	26.97	14.15	3/4-20UNEF	46.69	14.27	3.96 1.57	7.14	23.83
12	19.43	26.97	14.15	3/4-20UNEF	55.40	19.05	3.96 1.57	7.14	23.83
14s	22.61	29.36	17.32	7/8-20UNEF	46.69	14.27	3.96 1.57	10.31	28.58
14	22.61	29.36	17.32	7/8-20UNEF	55.40	19.05	3.96 1.57	10.31	28.58
16s	25.78	32.54	20.50	1 -20UNEF	46.69	14.27	3.96 1.57	12.70	30.96
16	25.78	32.54	20.50	1 -20UNEF	55.40	19.05	3.96 1.57	12.70	30.96
18	28.96	34.14	23.67	1 1/8-18UNEF	57.94	19.05	5.16 2.39	13.49	35.71
20	32.13	38.10	26.87	1 1/4-18UNEF	57.94	19.05	5.16 2.39	16.66	38.10
22	35.31	41.28	30.02	1 3/8-18UNEF	57.94	19.05	5.16 2.39	19.05	39.67
24	38.48	44.45	33.20	1 1/2-18UNEF	57.94	20.62	5.16 2.39	19.84	46.84
28	44.83	50.80	38.76	1 3/4-18UNS	57.94	20.62	5.16 2.39	23.42	46.84
32	51.18	57.15	45.11	2 -18UNS	58.98	22.23	9.12 3.18	29.36	53.98
36	57.53	63.50	50.67	2 1/4-16UN	58.98	22.23	9.12 3.18	31.75	58.72

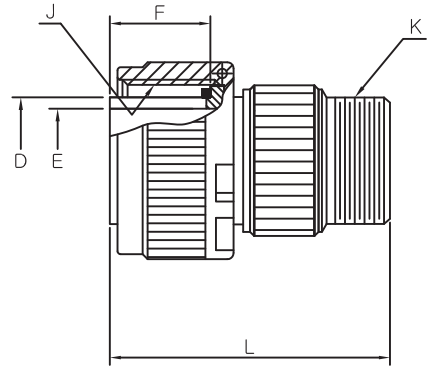
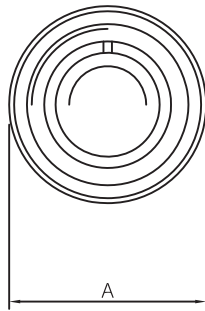
# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3106 Class A

MS3106 Class A

Straight plug

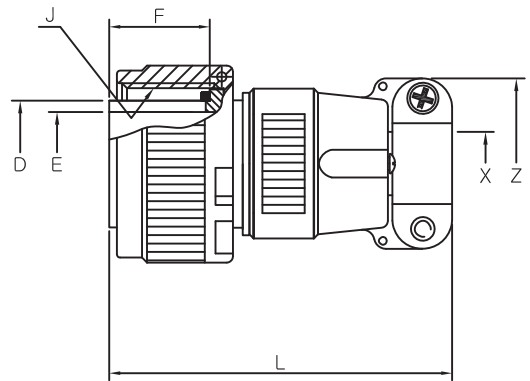
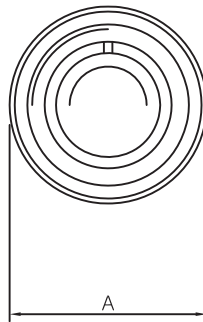


Shell size	$\varnothing A$	$\varnothing D$	$\varnothing E$	F	J	K	L
	max	-0.38	min	$\pm 0.13$	THD-2B	THD-2A	max
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	5/8-24UNEF	38.89
12s	26.97	14.10	11.43	13.49	3/4-20UNEF	5/8-24UNEF	42.88
12	26.97	14.10	11.43	18.26	3/4-20UNEF	5/8-24UNEF	52.37
14s	29.36	17.15	13.36	13.49	7/8-20UNEF	3/4-20UNEF	42.88
14	29.36	17.15	13.36	18.26	7/8-20UNEF	3/4-20UNEF	52.37
16s	31.75	20.45	16.54	13.49	1 -20UNEF	7/8-20UNEF	42.88
16	31.75	20.45	16.54	18.26	1 -20UNEF	7/8-20UNEF	52.37
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	1 -20UNEF	52.37
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	1 3/16-18UNEF	55.58
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	1 3/16-18UNEF	55.58
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	1 7/16-18UNEF	58.72
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	1 7/16-18UNEF	58.72
32	56.36	44.96	41.15	18.26	2 -18UNS	1 3/4-18UNS	61.93
36	62.71	50.29	46.69	18.26	2 1/4-16UN	2 -18UNS	61.93
40	69.06	56.64	52.25	18.26	2 1/2-16UN	2 1/4-18UN	61.93

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3106 Class E, F  
 MS3106 Class E, F  
 Straight plug with Integral  
 cable clamp and grommet

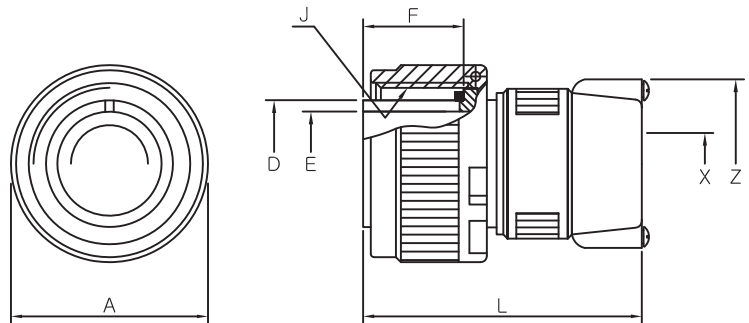


Shell size	$\varnothing A$	$\varnothing D$	$\varnothing E$	F	J	L	X	Z
	max	-0.38	min	$\pm 0.13$	THD-2B	max	min	$\pm 0.79$
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	57.15	7.14	22.23
12s	26.97	14.10	11.43	13.49	3/4-20UNEF	57.15	7.14	22.23
12	26.97	14.10	11.43	18.26	3/4-20UNEF	66.68	7.14	22.23
14s	29.36	17.15	13.36	13.49	7/8-20UNEF	57.15	10.31	26.97
14	29.36	17.15	13.36	18.26	7/8-20UNEF	66.68	10.31	26.97
16s	31.75	20.45	16.54	13.49	1 -20UNEF	57.15	12.70	29.36
16	31.75	20.45	16.54	18.26	1 -20UNEF	66.68	12.70	29.36
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	68.28	13.49	31.75
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	69.85	16.66	37.31
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	69.85	19.05	37.31
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	75.41	19.84	42.88
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	76.99	23.42	42.88
32	56.36	44.96	41.15	18.26	2 -18UNS	76.99	29.36	51.59
36	62.71	50.29	46.69	18.26	2 1/4-16UN	83.34	31.75	57.94

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3106 Class R  
 MS3106 Class R  
 Straight plug with grommet  
 Identical in purpose to the  
 MS3106F



Shell size	$\varnothing A$	$\varnothing D$	$\varnothing E$	F	J	L	X	Z
	max	-0.38	min	$\pm 0.13$	THD-2B	max	min	$\pm 0.79$
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	46.69	7.14	22.23
12s	26.97	14.10	11.43	13.49	3/4-20UNEF	46.69	7.14	22.23
12	26.97	14.10	11.43	18.26	3/4-20UNEF	55.40	7.14	22.23
14s	29.36	17.15	13.36	13.49	7/8-20UNEF	46.69	10.31	26.97
14	29.36	17.15	13.36	18.26	7/8-20UNEF	55.40	10.31	26.97
16s	31.75	20.45	16.54	13.49	1 -20UNEF	46.69	12.70	29.36
16	31.75	20.45	16.54	18.26	1 -20UNEF	55.40	12.70	29.36
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	57.94	13.49	31.75
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	57.94	16.66	37.31
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	57.94	19.05	37.31
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	57.94	19.84	42.88
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	57.94	23.42	42.88
32	56.36	44.96	41.15	18.26	2 -18UNS	58.98	29.36	51.59
36	62.71	50.29	46.69	18.26	2 1/4-16UN	58.98	31.75	57.94

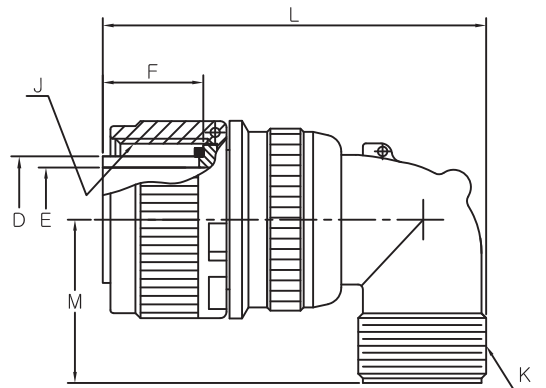
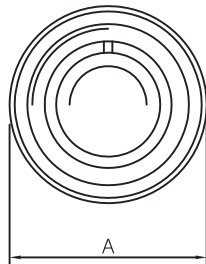
# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3108 Class A

MS3108 Class A

90° Angle plug



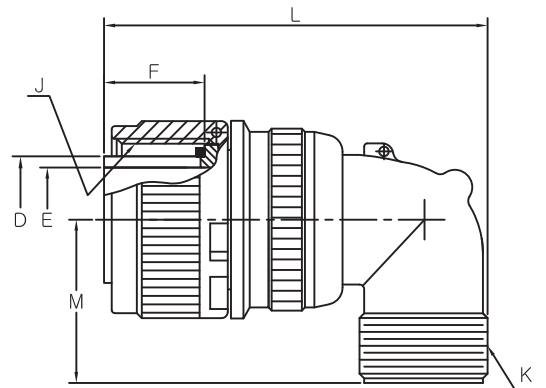
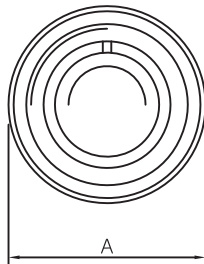
Shell size	øA max	øD -0.38	øE min	F ±0.13	J THD-2B	K THD-2A	L max	M max
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	5/8-24UNEF	46.02	25.40
12s	26.97	14.10	11.43	13.49	3/4-20UNEF	5/8-24UNEF	50.80	26.97
12	26.97	14.10	11.43	18.26	3/4-20UNEF	5/8-24UNEF	57.15	26.97
14s	29.36	17.15	13.36	13.49	7/8-20UNEF	3/4-20UNEF	53.98	28.58
14	29.36	17.15	13.36	18.26	7/8-20UNEF	3/4-20UNEF	58.72	28.58
16s	31.75	20.45	16.54	13.49	1 -20UNEF	7/8-20UNEF	60.33	30.18
16	31.75	20.45	16.54	18.26	1 -20UNEF	7/8-20UNEF	65.07	30.18
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	1 -20UNEF	68.28	33.32
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	1 3/16-18UNEF	76.99	34.93
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	1 3/16-18UNEF	76.99	34.93
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	1 7/16-18UNEF	86.51	39.67
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	1 7/16-18UNEF	86.51	39.67
32	56.36	44.96	41.15	18.26	2 -18UNS	1 3/4-18UNS	95.25	47.63
36	62.71	50.29	46.69	18.26	2 1/4-16UN	2 -18UNS	100.03	52.37



# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3108 Class E, R  
 MS3108 Class E, R  
 90° Angle plug  
 (grommet included)

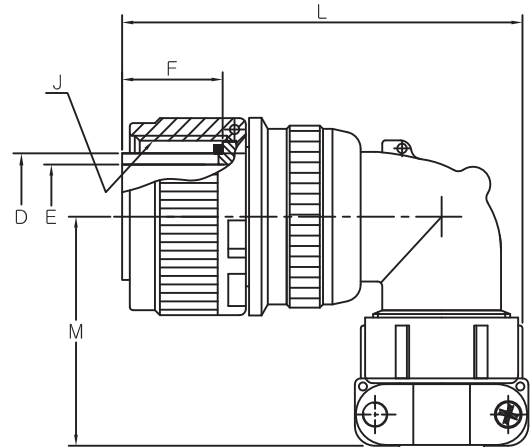
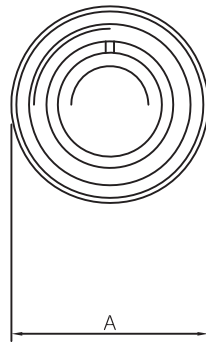


Shell size	øA max	øD -0.38	øE min	F ±0.13	J THD-2B	K THD-2A	L max	M max
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	5/8-24UNEF	46.02	25.40
12s	26.97	14.10	11.43	13.49	3/4-20UNEF	5/8-24UNEF	50.80	26.97
12	26.97	14.10	11.43	18.26	3/4-20UNEF	5/8-24UNEF	57.15	26.97
14s	29.36	17.15	13.36	13.49	7/8-20UNEF	3/4-20UNEF	53.98	28.58
14	29.36	17.15	13.36	18.26	7/8-20UNEF	3/4-20UNEF	58.72	28.58
16s	31.75	20.45	16.54	13.49	1 -20UNEF	7/8-20UNEF	60.33	30.18
16	31.75	20.45	16.54	18.26	1 -20UNEF	7/8-20UNEF	65.07	30.18
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	1 -20UNEF	68.28	33.32
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	1 3/16-18UNEF	76.99	34.93
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	1 3/16-18UNEF	76.99	34.93
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	1 7/16-18UNEF	86.51	39.67
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	1 7/16-18UNEF	86.51	39.67
32	56.36	44.96	41.15	18.26	2 -18UNS	1 3/4-18UNS	95.25	47.63
36	62.71	50.29	46.69	18.26	2 1/4-16UN	2 -18UNS	100.03	52.37

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3108 Class F  
 MS3108 Class F  
 90° Angle plug with  
 M85049/41 cable clamp  
 and grommet



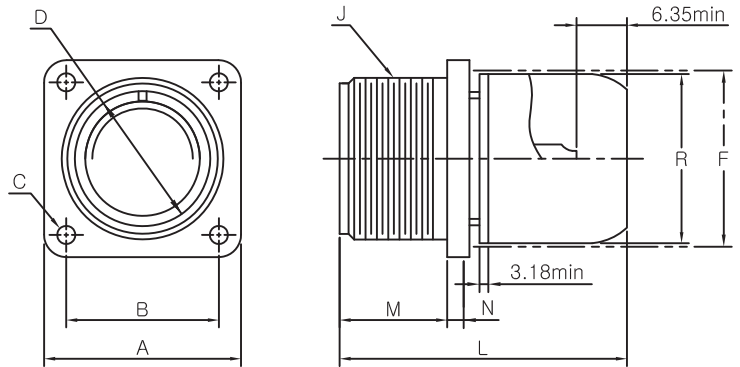
Shell size	∅A max	∅D -0.38	∅E min	F ±0.13	J THD-2B	L max	M max
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	55.58	38.10
12s	26.97	14.10	11.43	13.49	3/4-20UNEF	55.58	38.10
12	26.97	14.10	11.43	18.26	3/4-20UNEF	64.29	38.10
14s	29.36	17.15	13.36	13.49	7/8-20UNEF	58.72	40.49
14	29.36	17.15	13.36	18.26	7/8-20UNEF	68.28	40.49
16s	31.75	20.45	16.54	13.49	1 -20UNEF	61.11	42.88
16	31.75	20.45	16.54	18.26	1 -20UNEF	70.64	42.88
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	72.24	45.24
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	82.55	50.01
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	82.55	50.80
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	94.46	53.98
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	94.46	55.58
32	56.36	44.96	41.15	18.26	2 -18UNS	106.38	65.89
36	62.71	50.29	46.69	18.26	2 1/4-16UN	109.14	69.06

# KD / MIL-DTL-5015 Series

## Connector Dimensions

KD3103  
MS3103  
Potting seal box mounting receptacle

Supplied with a resilient insulator and nylon potting cup with a threaded attachment ring



Shell size	□A	□B	∅C	∅D	R	∅F	J	L	M	N	
	±0.79	±0.13	+0.25 -0.13	+0.38	max	Mounting Hole	THD-2A	max	+0.79	max	min
10SL	25.40	18.26	3.05	11.38	21.92	20.62	5/8-24UNEF	38.89	14.27	3.96	1.65
12S	27.79	20.62	3.05	14.15	21.92	20.62	3/4-20UNEF	38.89	14.27	3.96	1.65
12	27.79	20.62	3.05	14.15	21.92	20.62	3/4-20UNEF	49.99	19.05	3.96	3.58
14S	30.18	23.01	3.05	17.32	23.90	23.83	7/8-20UNEF	38.89	14.27	3.96	1.65
14	30.18	23.01	3.05	17.32	23.90	23.83	7/8-20UNEF	49.99	19.05	3.96	3.58
16S	32.54	24.61	3.05	20.50	27.08	26.97	1 -20UNEF	38.89	14.27	3.96	1.65
16	32.54	24.61	3.05	20.50	27.08	26.97	1 -20UNEF	49.99	19.05	3.96	3.58
18	34.93	26.97	3.05	23.67	30.66	30.18	1 1/8-18UNEF	49.99	19.05	5.16	3.58
20	38.10	29.36	3.05	26.87	33.83	33.32	1 1/4-18UNEF	55.58	19.05	5.16	3.58
22	41.28	31.75	3.05	30.02	37.01	36.53	1 3/8-18UNEF	55.58	19.05	5.16	3.58
24	44.45	34.93	3.73	33.20	40.18	39.97	1 1/2-18UNEF	55.58	20.62	5.16	5.74
28	50.80	39.67	3.73	38.76	46.53	46.02	1 3/4-18UNS	55.58	20.62	5.16	5.74
32	57.15	44.45	4.39	45.11	52.88	52.37	2 -18UNS	55.58	22.23	9.12	5.74
36	63.50	49.23	4.39	50.67	60.83	58.72	2 1/4-16UN	55.58	22.23	9.12	5.74
40	69.85	55.58	4.39	57.02	65.89	65.07	2 1/2-16UN	55.58	22.23	9.12	5.74

# KD / MIL-DTL-5015 Series

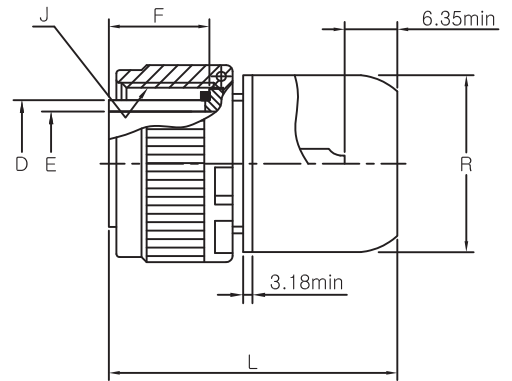
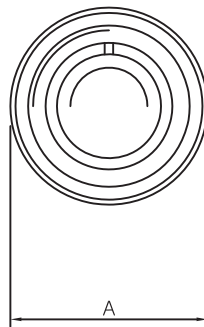
## Connector Dimensions

KD25183

MS25183

Potting seal plug

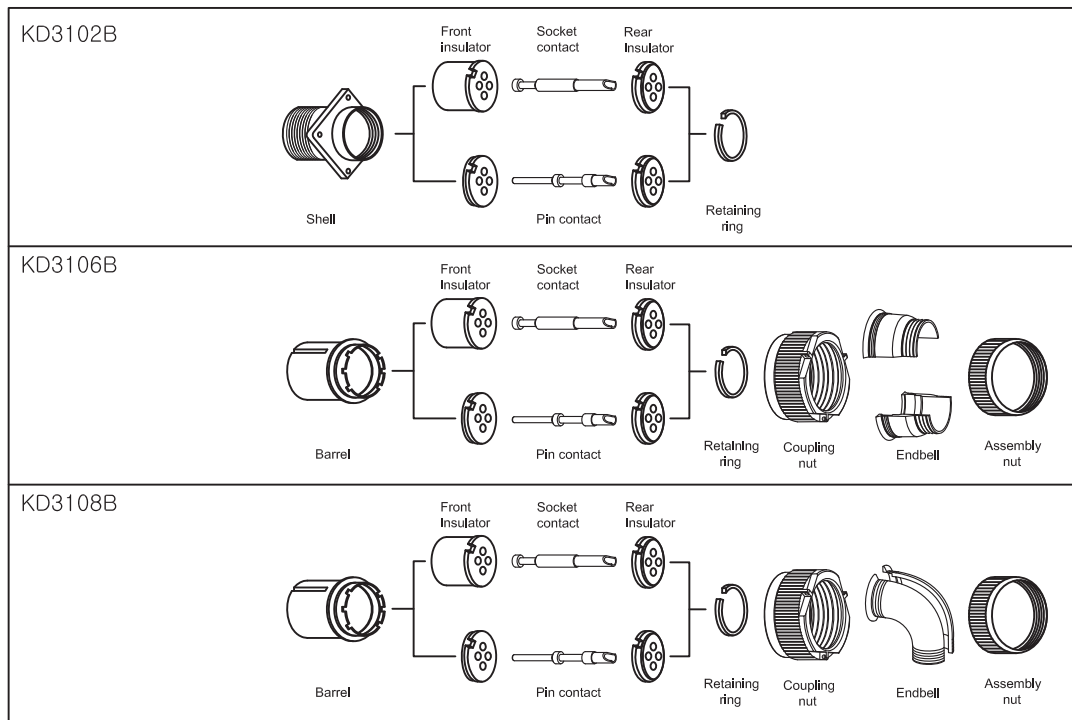
Supplied with a resilient insulator and nylon potting cup with a threaded attachment ring



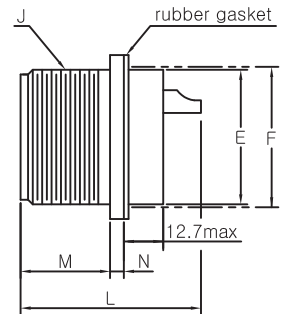
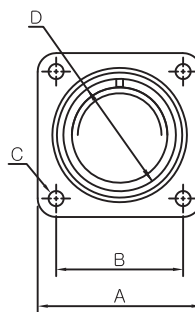
Shell size	$\varnothing A$	$\varnothing D$	$\varnothing E$	F	J	L	R
	max	-0.38	min	$\pm 0.13$	THD-2B	max	max
10SL	24.61	11.33	10.20	13.49	5/8-24UNEF	38.10	21.92
12S	26.97	14.10	11.43	13.49	3/4-20UNEF	38.10	21.92
12	26.97	14.10	11.43	18.26	3/4-20UNEF	48.41	21.92
14S	29.36	17.15	13.36	13.49	7/8-20UNEF	38.10	23.90
14	29.36	17.15	13.36	18.26	7/8-20UNEF	48.41	23.90
16S	31.75	20.45	16.54	13.49	1 -20UNEF	38.10	27.08
16	31.75	20.45	16.54	18.26	1 -20UNEF	48.41	27.08
18	34.14	23.62	19.71	18.26	1 1/8-18UNEF	48.41	30.66
20	37.31	26.67	23.67	18.26	1 1/4-18UNEF	55.58	33.83
22	40.49	29.85	26.06	18.26	1 3/8-18UNEF	55.58	37.01
24	43.66	33.02	29.24	18.26	1 1/2-18UNEF	55.58	40.18
28	50.01	38.61	34.80	18.26	1 3/4-18UNS	55.58	46.53
32	56.36	44.96	41.15	18.26	2 -18UNS	55.58	52.88
36	62.71	50.29	46.69	18.26	2 1/4-16UN	55.58	60.83
40	69.06	56.64	52.25	18.26	2 1/2-16UN	55.58	65.89

# KD / MIL-DTL-5015 Series

## Exploded view



KD3102B  
MS3102B  
Box mounting receptacle



Shell size	□A	□B	∅C	∅D	∅E	∅F	J	L	M	N
	±0.79	±0.13	+0.25 -0.13	+0.38	-4.78	Mounting Hole	THD-2A	max	+0.79	max min
14S	30.18	23.01	3.05	17.32	23.01	23.83	7/8-20UNEF	30.25	14.27	3.96 1.57
16	32.54	24.61	3.05	20.50	26.21	26.97	1 -20UNEF	44.45	19.05	3.96 1.57
18	34.93	26.97	3.05	23.67	29.36	30.18	1 1/8-18UNEF	49.23	19.05	5.16 2.39
20	38.10	29.36	3.05	26.87	32.56	33.32	1 1/4-18UNEF	49.23	19.05	5.16 2.39
22	41.28	31.75	3.05	30.02	35.71	36.53	1 3/8-18UNEF	49.23	19.05	5.16 2.39
24	44.45	34.93	3.73	33.20	38.91	39.97	1 1/2-18UNEF	49.23	20.62	5.16 2.39
28	50.80	39.67	3.73	38.76	45.26	46.02	1 3/4-18UNS	49.23	20.62	5.16 2.39
32	57.15	44.45	4.39	45.11	51.61	52.37	2 -18UNS	49.23	22.23	9.12 3.18
36	63.50	49.23	4.39	50.67	57.96	58.72	2 1/4-16UN	49.23	22.23	9.12 3.18

# KD / MIL-DTL-5015 Series

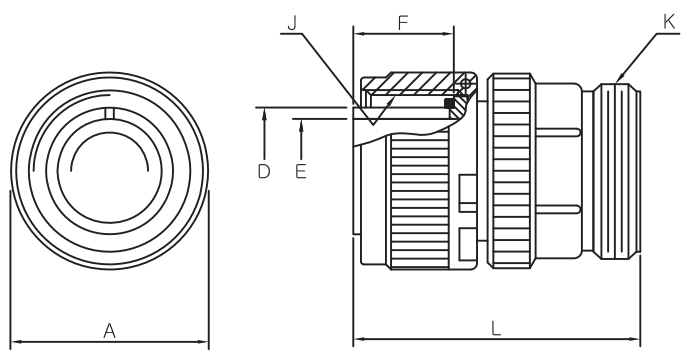
## Connector Dimensions

KD3106B

MS3106B

Straight plug and split endbell

Wire soldering and maintenance  
simplified with a split type endbell



Shell size	∅A	∅D	∅E	F	L	J	K
	max	-0.38	min	±0.13	max	THD-2B	THD-2A
14s	29.36	17.15	13.36	13.49	42.88	7/8-20UNEF	3/4-20UNEF
16	31.75	20.45	16.54	18.26	52.37	1 -20UNEF	7/8-20UNEF
18	34.14	23.62	19.71	18.26	52.37	1 1/8-18UNEF	1 -20UNEF
20	37.31	26.67	23.67	18.26	55.58	1 1/4-18UNEF	1 3/16-18UNEF
22	40.49	29.85	26.06	18.26	55.58	1 3/8-18UNEF	1 3/16-18UNEF
24	43.66	33.02	29.24	18.26	58.72	1 1/2-18UNEF	1 7/16-18UNEF
28	50.01	38.61	34.80	18.26	58.72	1 3/4-18UNS	1 7/16-18UNEF
32	56.36	44.96	41.15	18.26	61.93	2 -18UNS	1 3/4-18UNS
36	62.71	50.29	46.69	18.26	61.93	2 1/4-16UN	2 -18UNS

# KD / MIL-DTL-5015 Series

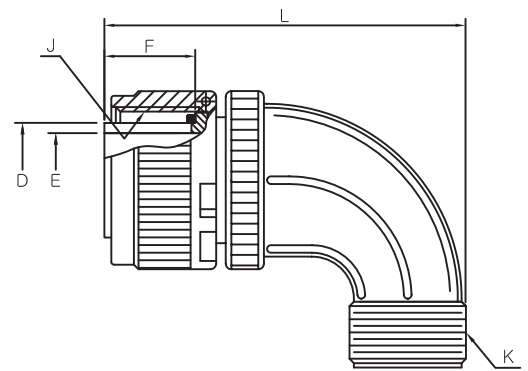
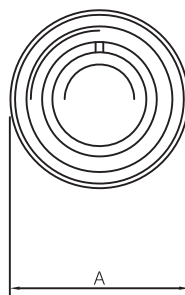
## Connector Dimensions

KD3108B

MS3108B

90° Angle plug and split endbell

Convenient for use in narrow places



Shell size	∅A	∅D	∅E	F	L	J	K
	max	-0.38	min	±0.13	max	THD-2B	THD-2A
14s	29.36	17.15	13.36	13.49	53.98	7/8-20UNEF	3/4-20UNEF
16	31.75	20.45	16.54	18.26	65.07	1 -20UNEF	7/8-20UNEF
18	34.14	23.62	19.71	18.26	68.28	1 1/8-18UNEF	1 -20UNEF
20	37.31	26.67	23.67	18.26	76.99	1 1/4-18UNEF	1 3/16-18UNEF
22	40.49	29.85	26.06	18.26	76.99	1 3/8-18UNEF	1 3/16-18UNEF
24	43.66	33.02	29.24	18.26	86.51	1 1/2-18UNEF	1 7/16-18UNEF
28	50.01	38.61	34.80	18.26	86.51	1 3/4-18UNS	1 7/16-18UNEF
32	56.36	44.96	41.15	18.26	95.25	2 -18UNS	1 3/4-18UNS
36	62.71	50.29	46.69	18.26	100.03	2 1/4-16UN	2 -18UNS

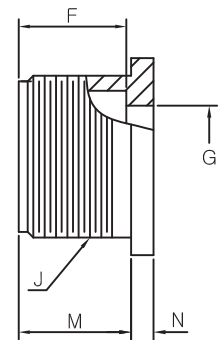
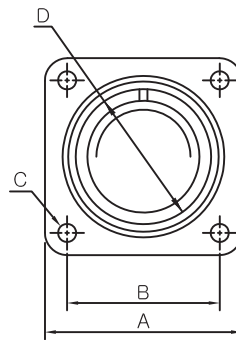
# KD / MIL-DTL-5015 Series

## Accessories

KD3105

MS3105

Dummy stowage receptacle



Shell size	□A	□B	∅C	∅D	F	G	J	M	N	
	±0.79	±0.13	+0.25 -0.13	+0.38	+0.79	±0.79	THD-2A	+0.79	max	min
10SL	25.40	18.26	3.05	11.38	14.28	11.43	5/8-24UNEF	14.27	3.96	1.98
12S	27.79	20.62	3.05	14.15	14.28	11.43	3/4-20UNEF	14.27	3.96	1.98
12	27.79	20.62	3.05	14.15	19.05	11.43	3/4-20UNEF	19.05	3.96	1.98
14S	30.18	23.01	3.05	17.32	14.28	13.36	7/8-20UNEF	14.27	3.96	1.98
14	30.18	23.01	3.05	17.32	19.05	13.36	7/8-20UNEF	19.05	3.96	1.98
16S	32.54	24.61	3.05	20.50	14.28	16.41	1 -20UNEF	14.27	3.96	1.98
16	32.54	24.61	3.05	20.50	19.05	16.41	1 -20UNEF	19.05	3.96	1.98
18	34.93	26.97	3.05	23.67	19.05	19.58	1 1/8-18UNEF	19.05	5.16	2.39
20	38.10	29.36	3.05	26.87	19.05	23.55	1 1/4-18UNEF	19.05	5.16	2.39
22	41.28	31.75	3.05	30.02	19.05	25.93	1 3/8-18UNEF	19.05	5.16	2.39
24	44.45	34.93	3.73	33.20	19.05	29.21	1 1/2-18UNEF	20.62	5.16	2.39
28	50.80	39.67	3.73	38.76	19.05	34.67	1 3/4-18UNS	20.62	5.16	2.39
32	57.15	44.45	4.39	45.11	19.05	41.15	2 -18UNS	22.23	9.12	3.18
36	63.50	49.23	4.39	50.67	19.05	46.56	2 1/4-16UN	22.23	9.12	3.18
40	69.85	55.58	4.39	57.02	19.05	52.12	2 1/2-16UN	22.23	9.12	3.18



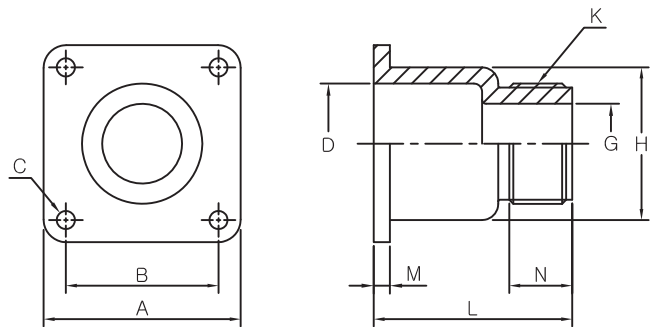
# KD / MIL-DTL-5015 Series

## Accessories

KD2120

Junction shell

Attached to the panel on the  
rearside to protect the cable



Shell size	□A	□B	∅C	∅D	∅G	∅H	K	L	M	N
	±0.79	±0.13	+0.25 -0.13	±0.41	±0.41	±0.41	THD-2A	max	±0.41	min
10SL	25.40	18.26	3.05	16.31	11.10	19.00	5/8-24UNEF	21.01	1.70	9.50
12S	27.79	20.62	3.05	16.31	11.10	19.00	5/8-24UNEF	21.01	1.70	9.50
12	27.79	20.62	3.05	16.31	11.10	19.00	5/8-24UNEF	21.01	1.70	9.50
14S	30.18	23.01	3.05	19.20	14.30	21.79	3/4-20UNEF	21.01	1.70	9.50
14	30.18	23.01	3.05	19.20	14.30	21.79	3/4-20UNEF	21.01	1.70	9.50
16S	32.54	24.61	3.05	22.40	17.50	24.99	7/8-20UNEF	23.01	1.70	9.50
16	32.54	24.61	3.05	22.40	17.50	24.99	7/8-20UNEF	23.01	1.70	9.50
18	34.93	26.97	3.05	25.10	20.19	28.40	1 -20UNEF	29.01	2.21	9.50
20	38.10	29.36	3.05	29.79	23.01	32.51	1 3/16-18UNEF	32.99	2.21	9.50
22	41.28	31.75	3.05	32.31	23.19	35.71	1 3/16-18UNEF	32.00	2.21	9.50
24	44.45	34.93	3.73	35.51	29.49	38.89	1 7/16-18UNEF	35.00	2.21	9.50
28	50.80	39.67	3.73	42.09	29.79	45.11	1 7/16-18UNEF	34.01	2.21	9.50
32	57.15	44.45	4.39	48.11	37.49	51.51	1 3/4-18UNS	35.00	3.20	11.10
36	63.50	49.23	4.39	54.51	43.79	57.81	2 -18UNS	35.00	3.20	12.70

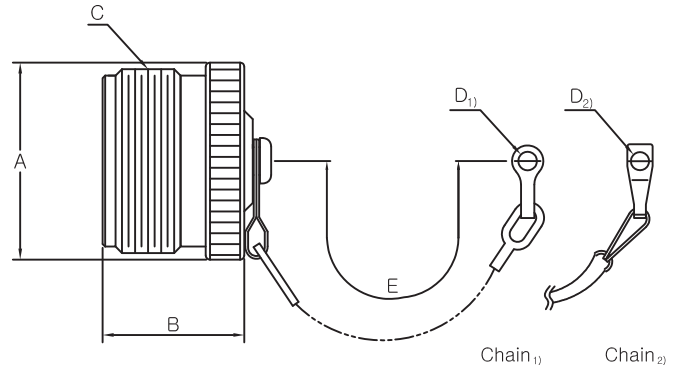
# KD / MIL-DTL-5015 Series

KD25042

MS25042

Cover protecting caps for plug

Used to protect the MS3106  
and MS3108 plugs



Order No.	Shell size	∅A	B	C	∅D <sub>1</sub>	E <sub>1</sub>	∅D <sub>2</sub>	∅E <sub>2</sub>
		max	max	THD-2B	+0.15 -0.05	±10.0	+0.25 -0.13	±ONE LINK
KD25042-10D	10SL	17.45	16.66	5/8-24UNEF	3.80	125.0	3.96	101.6
KD25042-12D	12s & 12	20.62	21.44	3/4-20UNEF	3.80	125.0	3.96	114.3
KD25042-14D	14s & 14	23.80	21.44	7/8-20UNEF	3.80	125.0	3.96	114.3
KD25042-16D	16s & 16	26.97	21.44	1 -20UNEF	3.80	125.0	3.96	114.3
KD25042-18D	18	30.15	21.44	1 1/8-18UNEF	3.80	173.0	3.96	114.3
KD25042-20D	20	33.32	21.44	1 1/4-18UNEF	3.80	173.0	4.75	127.0
KD25042-22D	22	36.50	21.44	1 3/8-18UNEF	3.80	173.0	4.75	139.7
KD25042-24D	24	39.67	21.44	1 1/2-18UNEF	3.80	173.0	4.75	196.9
KD25042-28D	28	46.02	21.44	1 3/4-18UNS	3.80	173.0	4.75	196.9
KD25042-32D	32	52.37	21.44	2 -18UNS	3.80	173.0	5.54	196.9
KD25042-36D	36	58.72	21.44	2 1/4-18UNS	3.80	173.0	5.54	196.9
KD25042-40D	40	65.07	21.44	2 1/2-16UN	3.80	173.0	5.54	196.9

Note : Chain 1) - Kukdong standard (material - copper alloy)  
Chain 2) - Customer's option (material - stainless steel)

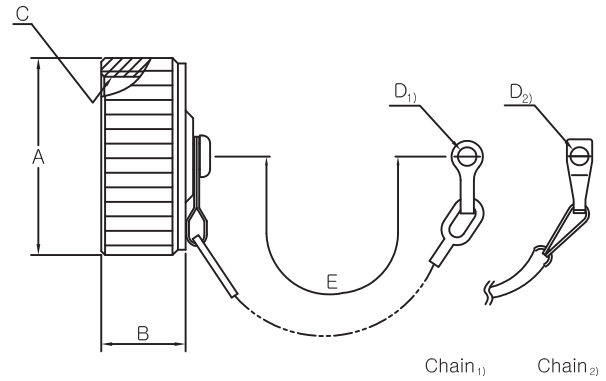
# KD / MIL-DTL-5015 Series

KD25043

MS25043

Cover protecting caps for receptacle

Used to protect MS3100, MS3101  
and MS3102 receptacles



Order No.	Shell size	∅A	B	C	∅D <sub>1</sub>	E <sub>1</sub>	∅D <sub>2</sub>	∅E <sub>2</sub>
		max	max	THD-2B	+0.15 -0.05	±10.0	+0.25 -0.13	±ONE LINK
KD25042-10D	10SL	20.70	11.91	5/8-24UNEF	3.80	125.0	3.56	101.6
KD25042-12D	12s & 12	25.40	11.91	3/4-20UNEF	3.80	125.0	3.56	114.3
KD25042-14D	14s & 14	28.58	11.91	7/8-20UNEF	3.80	125.0	3.56	114.3
KD25042-16D	16s & 16	30.18	11.91	1 -20UNEF	3.80	125.0	3.56	114.3
KD25042-18D	18	34.14	11.91	1 1/8-18UNEF	3.80	173.0	3.56	114.3
KD25042-20D	20	37.31	11.91	1 1/4-18UNEF	3.80	173.0	3.56	127.0
KD25042-22D	22	40.49	11.91	1 3/8-18UNEF	3.80	173.0	3.56	139.7
KD25042-24D	24	43.66	11.91	1 1/2-18UNEF	3.80	173.0	4.34	196.9
KD25042-28D	28	50.01	13.49	1 3/4-18UNS	3.80	173.0	4.34	196.9
KD25042-32D	32	56.36	13.49	2 -18UNS	3.80	173.0	4.75	196.9
KD25042-36D	36	62.71	13.49	2 1/4-18UNS	3.80	173.0	4.75	196.9
KD25042-40D	40	69.06	13.49	2 1/2-16UN	3.80	173.0	4.75	196.9

Note : Chain 1) - Kukdong standard (material - copper alloy)  
Chain 2) - Customer's option (material - stainless steel)

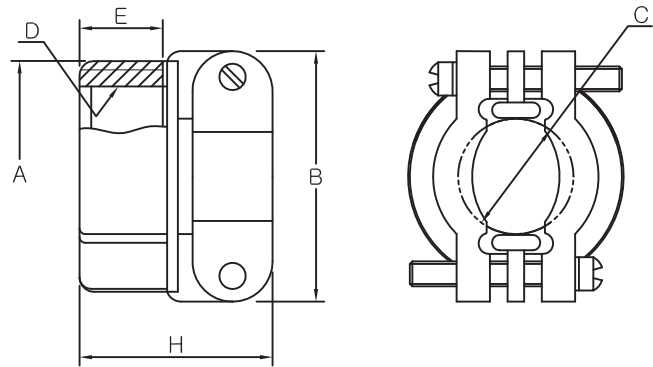
# KD / MIL-DTL-5015 Series

KD85049 / 41

M85049 / 41

Cable clamp

For plugs and receptacles that have an endbell with external conduit threads



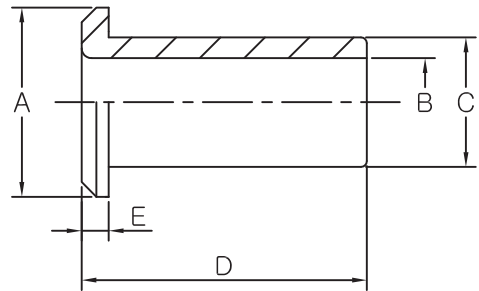
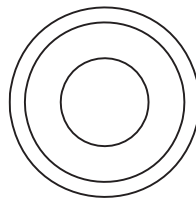
Order No.	Shell size	A	B	∅C	D	E	H
		±0.79	±0.79	max	THD-2B	±0.41	±0.79
KD85049 / 41-4A	10SL, 12s & 12	20.62	22.23	7.92	5/8-24UNEF	10.31	20.62
KD85049 / 41-6A	14s & 14	24.61	26.97	11.13	3/4-20UNEF	10.31	22.23
KD85049 / 41-8A	16s & 16	27.79	29.36	14.27	7/8-20UNEF	10.31	23.83
KD85049 / 41-10A	18	30.18	31.75	15.88	1 -20UNEF	10.31	23.83
KD85049 / 41-12A	20, 22	34.93	37.31	19.05	1 3/16-18UNEF	10.31	23.83
KD85049 / 41-16A	24, 28	42.06	42.88	23.83	1 7/16-18UNEF	10.31	26.19
KD85049 / 41-20A	32	51.59	51.59	31.75	1 3/4-18UNS	11.91	27.79
KD85049 / 41-24A	36	56.36	57.94	34.93	2 -18UNS	13.49	29.36

# KD / MIL-DTL-5015 Series

KD3420

MS3420

Bushing for cable clamps



Order No.	Shell size	$\varnothing A_{11}$	$\varnothing A_{21}$	$\varnothing B$	$\varnothing C$	D	$E_{11}$	$E_{21}$
KD3420-4	10SL, 12s & 12	$\pm 0.41$	$\pm 0.41$	$\pm 0.41$	$\pm 0.41$	$\pm 0.79$	$\pm 0.41$	$\pm 0.41$
KD3420-6	14s & 14	14.66	12.83	5.59	7.67	69.85	1.60	1.57
KD3420-8	16s & 16	17.76	15.72	7.92	10.85	66.68	1.60	1.57
KD3420-10	18	20.96	18.90	11.10	14.02	63.50	1.60	1.57
KD3420-12	20, 22	24.09	22.58	14.27	15.62	60.33	1.60	1.57
KD3420-16	24, 28	27.75	27.53	15.88	18.80	57.15	1.60	1.57
KD3420-20	32	34.79	33.38	19.05	23.55	53.98	1.60	1.57
KD3420-24	36	42.93	40.59	23.80	31.50	50.80	1.60	1.57
KD3420-24	36	49.26	46.91	31.75	34.67	47.63	1.60	1.57

Note : 1) - Kukdong standard

2) - Customer's option

# KD / MIL-DTL-5015 Series

## Components

	KD3106R Straight Plug	KD3106E/F Straight Plug	KD3108E/R 90° Plug	KD3108F 90° Plug	KD25183
Endbell					
Ferrule					
Grommet					
Coupling Nut					
Pin Contacts					
Insulator					
Barrel					
O-Ring		★ 		★ 	

★ O-Ring is also applied in KD3106E/F & KD3108F

# **KUKDONG Electronic Precision Co., Ltd.**

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