

## DMS E/F/R Series

### MIL-C-5015 Compatible Environment Resistant Type.

#### 《Outline》

DDK'S DMS E/F/R Series provides a set of moisture-resistant and oil-resistant connectors. This series uses synthetic rubber for their inserts to cope with the various environments in which industrial machines are installed.

The products in the DMS E/F/R series are compatible and comply with MIL-C-5015.

The F and R types prevent the entry of water moisture, cutting oil and other foreign substances into machines where those connectors are employed, helping enhance the reliability of the equipment.

#### 《Features》

- \* Synthetic rubber inserts.
- \* Grommet for moisture-proof.
- \* Unified backshell with cable clamp.
- \* Grommet and cable clamp combination for extra strength to hold cable.
- \* Solder termination contacts.

#### 《Application》

The DMS E/F/R series is designed and manufactured for reliable performance in a broad range of electric / electronic equipment applications. These include machine tools, communications, instrumentation and high current systems.

#### 《Material / Finish》

- Contact : Copper Alloy / Silver Plating
- Insert : Ethylene Propylene Rubber / Black
- Shell : Aluminum Alloy / Zinc Plating ,  
Black chromate finish.  
Olive drab chromate finish.

#### Receptacle Connector



Wall Receptacle  
DMS3100E



Cable Receptacle  
DMS3101E



Box Receptacle  
DMS3102E / R

#### Plug Connector



Straight Plug  
DMS3106E / F

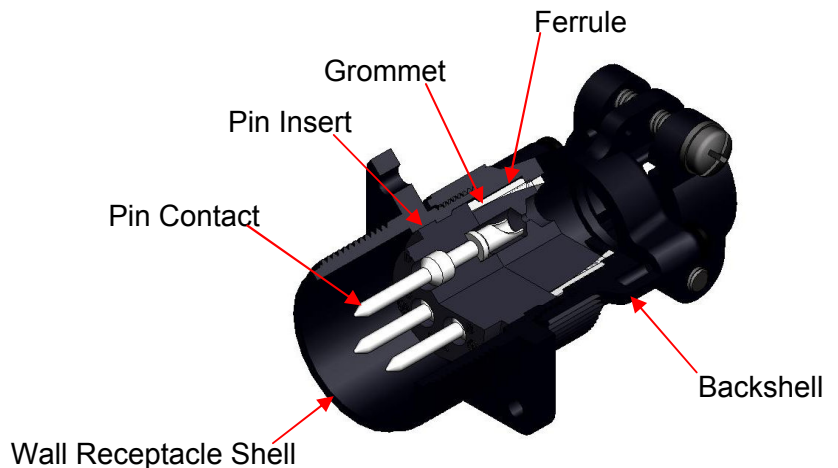


Angle Plug  
DMS3108E / F

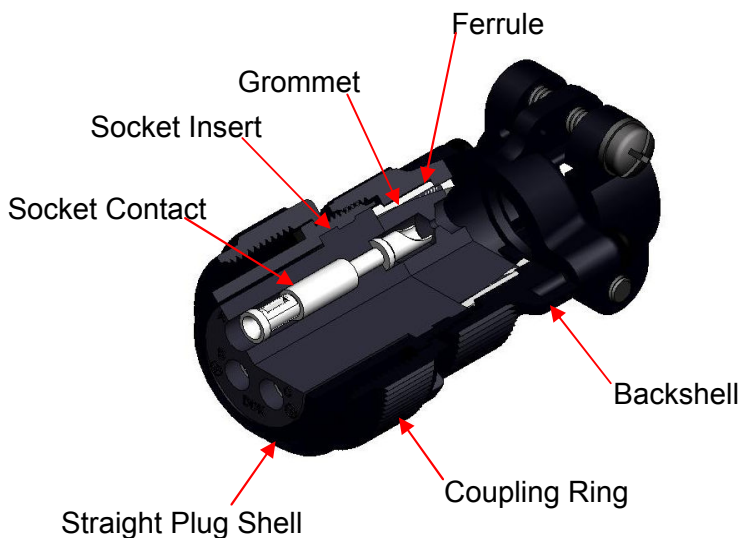
## Specification

Insulation Resistance	More than 500MΩ at DC500V (at 25°C degree)
Temperature Range	-55°C ~ +125°C
Durability	500 cycle mating / unmating operations
Thermal Shock	MIL-STD-202 method 107 Temperature range of -55°C ~ +125°C
Humidity	Relative humidity : 95%±3% Temperature : 71°C±2°C Duration : 14 days(336hrs.)
Vibration	MIL-STD-1344 method 2005 10-500Hz or 10G units
Shock, Electrical	1-2 sine wave transient shock impulse of 50G units Duration: 10 micro sec(There must not be current interception.) Test Current / 100mA
Salt Spray	MIL-STD-1344 method 1001 Salt solution / 5% Temperature in tank / 35°C Duration: 48H

## Structural Explanation



**Wall Receptacle Connector**  
DMS310E□□□□-□□P□-□

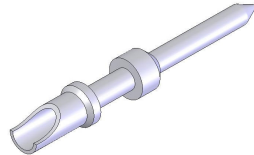


**Straight Plug Connector**  
DMS3106□□□□□-□□S□-□

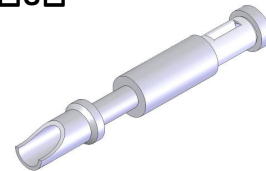
## CONTACT

### Solder Type

**Pin Contact**  
DMSE - #□□P□

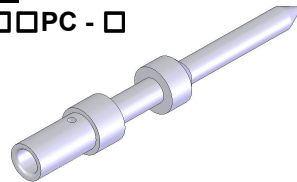


**Socket Contact**  
DMSE - #□□S□

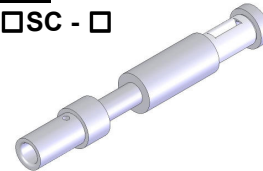


### Crimp Type

**Pin Contact**  
DMSE - #□□PC - □



**Socket Contact**  
DMSE - #□□SC - □



### ■ Applicable Wire ■

Contact Size	AWG	Sectional Area Capacitance (mm <sup>2</sup> )	Max. Conductor External Diameter (mm)
#16	#16 - #22	1.25	1.6
#12	#12 - #14	3.50	2.5
#8	#8 - #10	8.00	4.5
#4	#4 - #6	22.00	7.0
#0	#0 - #2	50.00	11.0

### ■ Current Rating ■

Contact Size	AWG	Max. Value per Contact(A)
#16	#16 - #22	13
#12	#12 - #14	23
#8	#8 - #10	46
#4	#4 - #6	80
#0	#0 - #2	150

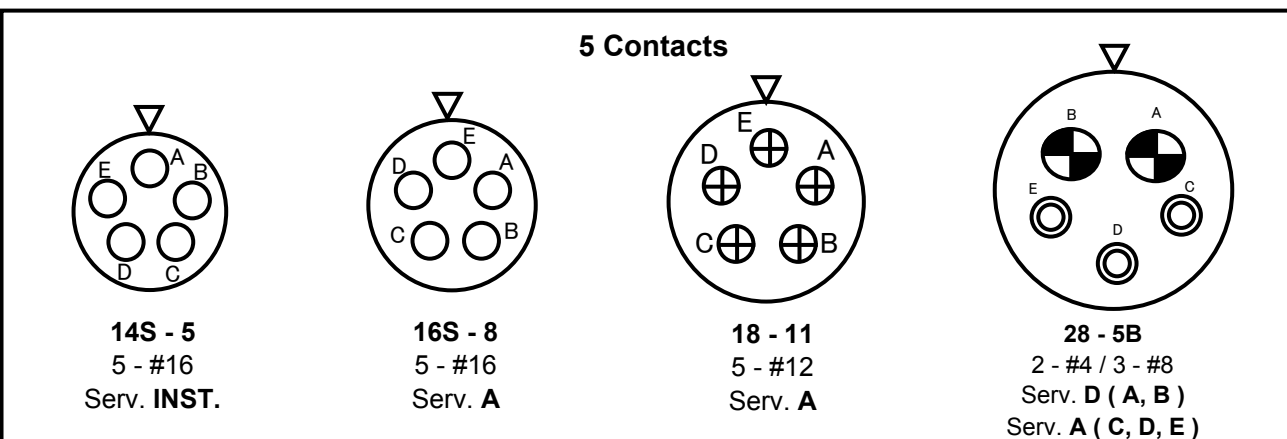
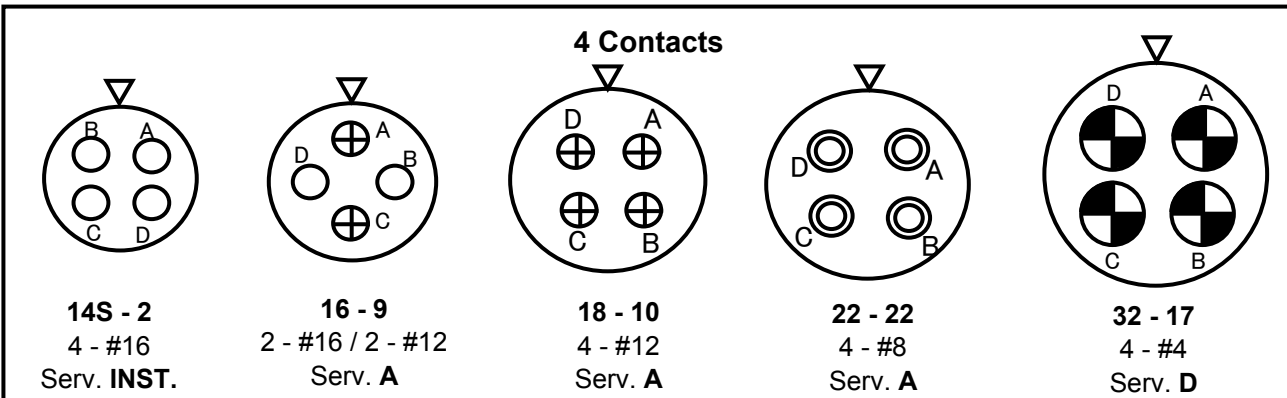
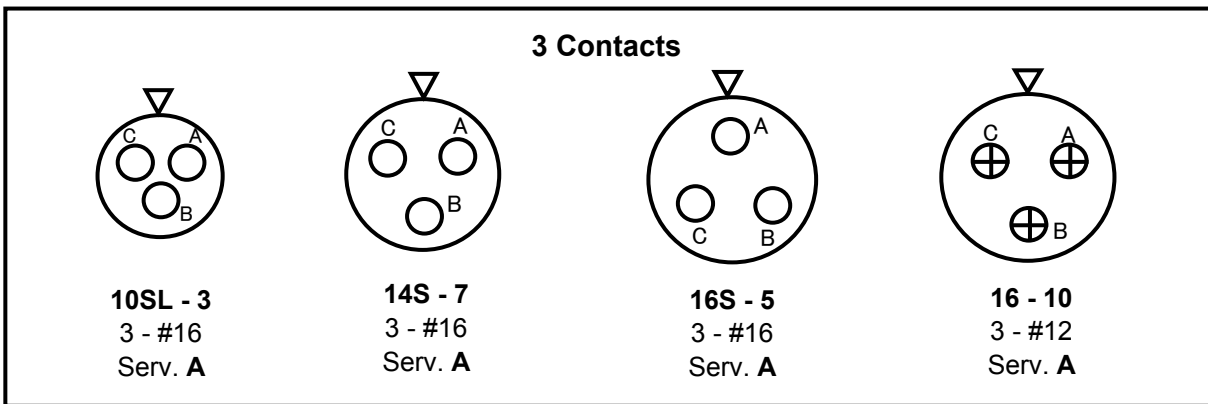
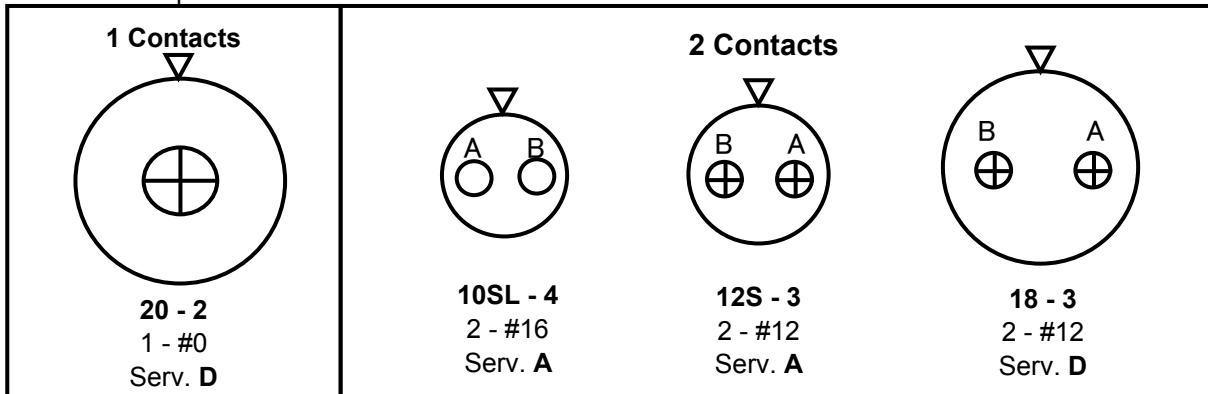
### ■ Voltage Rating ■

Service Rating	Voltage Rating(V)	
	DC	AC (r.m.s)
INST	250	200
A	700	500
D	1250	900
E	1750	1250
B	2450	1750
C	4200	3000

## Insert Arrangement List



Front face of pin insert or rear face of socket insert illustrated.



Note: Serv = Service Rating

## Insert Arrangement List

Contact Size



#16



#12



#8



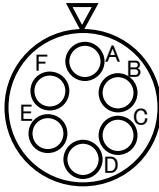
#4



#0

Front face of pin insert or rear face of socket insert illustrated.

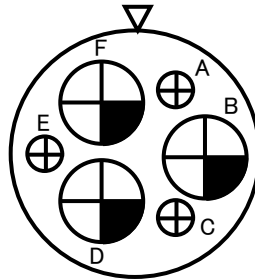
### 6 Contacts



**14S - 6**

6 - #16

Serv. **INST.**

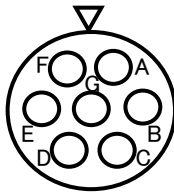


**36 - 3**

3 - #0 / 3 - #12

Serv. **D**

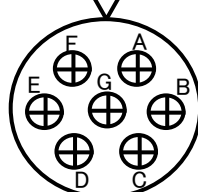
### 7 Contacts



**16S - 1**

7 - #16

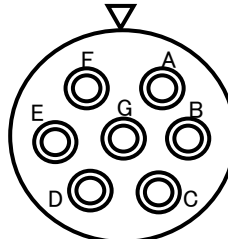
Serv. **A**



**20 - 15**

7 - #12

Serv. **A**

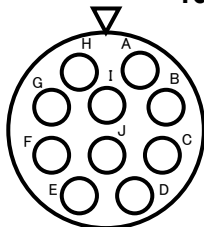


**24 - 10**

7 - #8

Serv. **A**

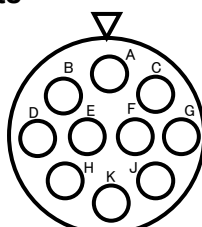
### 10 Contacts



**18 - 1**

10 - #16

Serv. **A (B,C,F,G)**  
Serv. **INST. (Others)**

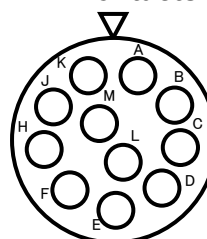


**18 - 19**

10 - #16

Serv. **A**

### 11 Contacts

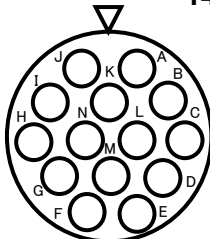


**20 - 33**

11 - #16

Serv. **A**

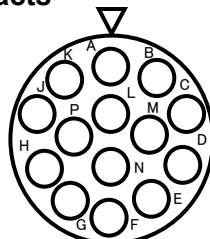
### 14 Contacts



**20 - 27**

14 - #16

Serv. **A**

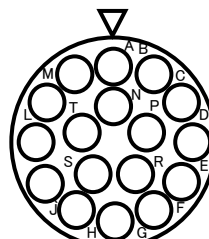


**22 - 19**

14 - #16

Serv. **A**

### 17 Contacts

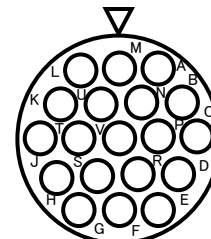


**20 - 29**

17 - #16

Serv. **A**

### 19 Contacts



**22 - 14**

19 - #16

Serv. **A**

Note: Serv = Service Rating

# DMS E/F/R Series



## Insert Arrangement List

Contact Size



#16



#12



#8



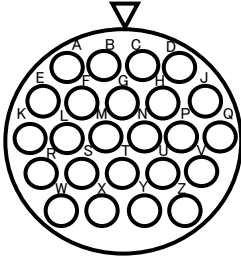
#4



#0

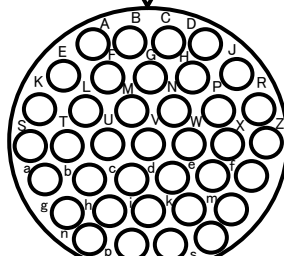
Front face of pin insert or rear face of socket insert illustrated.

### 24 Contacts



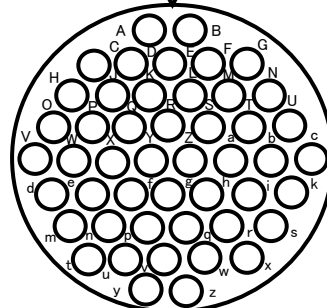
**24 - 28**  
24 - #16  
Serv. **INST.**

### 37 Contacts



**28 - 21**  
37 - #16  
Serv. **A**

### 48 Contacts

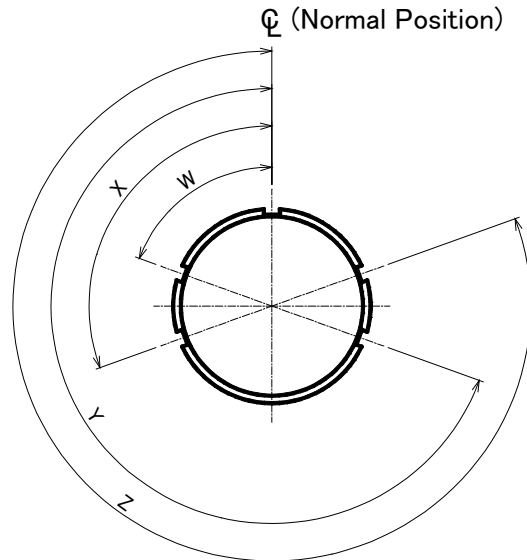


**36 - 10**  
48 - #16  
Serv. **A**

Note: Serv = Service Rating

## Alternate Insert Position

Insert No.	Key / Keyway No.			
	W	X	Y	Z
10SL-3	-	-	-	-
10SL-4	-	-	-	-
12S-3	70°	145°	215°	290°
14S-2	-	120°	240°	-
14S-5	-	110°	-	-
14S-6	-	-	-	-
14S-7	90°	180°	270°	-
16S-1	80°	180°	270°	-
16S-5	70°	145°	215°	290°
16S-8	-	170°	265°	-
16-9	35°	110°	250°	325°
16-10	90°	180°	270°	-
18-1	70°	145°	215°	290°
18-3	35°	110°	250°	325°
18-10	-	120°	240°	-
18-11	-	170°	265°	-
18-19	-	120°	240°	-
20-2	-	-	-	-
20-15	80°	-	-	280
20-27	35°	110°	250°	325
20-29	80°	-	-	280
20-33	-	-	-	-
22-14	80°	110°	250°	280
22-19	80°	110°	250°	280
22-22	-	110°	250°	-
24-10	80°	-	-	280°
24-28	80°	110°	250°	280°
28-5B	-	-	-	-
28-21	80°	110°	250°	280°
32-17	45°	110°	250°	-
36-3	70°	145°	215°	290°
36-10	80°	125°	235°	280°



Front face of Pin Insert or Rear face of socket insert

## Insert Specifications

Insert No.	No. of Pins	Contact Size					Service Rating
		#0	#4	#8	#12	#16	
10SL	10SL-3					3	A
	10SL-4					2	A
12S	12S-3					2	A
14S	14S-2					4	INST
	14S-5					5	INST
	14S-6					6	INST
	14S-7					3	A
16S	16S-1					7	A
	16S-5					3	A
	16S-8				2	5	A
16	16-9				3	2	A
	16-10						A
18	18-1					10	A (B, C, F, G) / INST(Other)
	18-3				2		A
	18-10				4		A
	18-11				5		A
	18-19					10	A
20	20-2	1					D
	20-15				7		A
	20-27					14	A
	20-29					17	A
	20-33					11	A
22	22-14					19	A
	22-19					14	A
	22-22			4			A
24	24-10			7			A
	24-28					24	INST
28	28-5B		2	3			A (C, D, E) / D (A, B)
	28-21					37	A
32	32-17		4				D
36	36-3	3			3		D
	36-10					48	A

Note : 10SL-3 and 10SL-4 arrangement available only with pin contacts in receptacle and socket contacts in plug ( Example : DMS3102R10SL-3P, DMS3102R10SL-4P, DMS3106E10SL-3S, DMS3106E10SL-4S)



## DMS E/F/R Part Numbering System

(Example part Number shown.)

**DMS 3106 F 20 - 29 S W - C - BSS - 1**

### Applicable Cable Diameter

- 0 : With non - waterproof cable clamp
- 1~8 : With waterproof cable clamp

### Backshell Style

- BSN : With non - waterproof straight backshell.
- BSS : With waterproof straight backshell.
- BSL : With waterproof Long straight backshell.
- Omit : Applicable Cable Diameter

Refer to the following name of articles.

- 3100E / 3101E : With waterproof straight backshell, grommet and ferrule.
- 3106E / F : With waterproof straight backshell, grommet and ferrule.
- 3108E / F : With waterproof angle backshell, grommet and ferrule.

### Deviations

- Omit : Black chromate finish.
- A : Olive drab chromate finish.

### Alternate Insert Position

- Omit : Normal position
- "W", "X", "Y", "Z" : Refer to page 7

### Contact Configuration (style)

- P : Solder pin contacts
- S : Solder socket contacts
- PC : Crimp pin contacts
- SC : Crimp socket contacts

### Insert Arrangement : Refer to page 4 - 6

### Shell Size

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

### Service Class

- E : Environmental with rubber insert.
- F : Environmental with rubber insert and gasket
- R : Environmental with rubber insert and gasket ( 3102 )
- R : Environmental with rubber insert and potting backshell ( 3100, 3101, 3106 ).

### Shell Style

- 3100 : Wall connecting receptacle ( in-line receptacle )
- 3101 : Cable connecting receptacle ( in-line receptacle )
- 3102 : Box mounting receptacle
- 3106 : Straight plug
- 3108 : 90 degree angle plug

### Connector Series

- DMS : Chromate Finish

**Wall Receptacle Connector**

DMS3100E□□□□ - □□P / S□ - □□□ - □

DMS3100E□□□□ - □□P / S□ - □

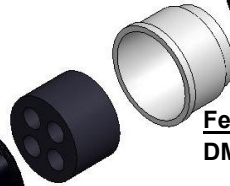
**Wall Receptacle Shell**  
DMSE - □□□□WRS



**Backshell**  
DMSE - □□□□BS



**Ferrule**  
DMSE - □□□□FL



**Grommet**  
DMSE - □□□□ - □□GM



DMS3100E□□□□ - □□P / S□ - BS□ - □

**Cable Clamp**  
CE3057 - □□A - □



**Waterproof Straight Backshell**  
DMSE - □□□□BSS



**Waterproof Straight Backshell**  
DMSE - □□□□BSLS

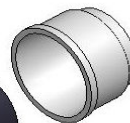
DMS3100E□□□□ - □□P / S□ - □ - BSN - □

**Cable Clamp**  
DMS3057 - □□AK



**Straight Backshell**  
DMSE - □□□□BSN

DMS3100E□□□□ - □□P / S□ - □ - BA - □



**Angle Backshell**  
DMSE - □□□□BA

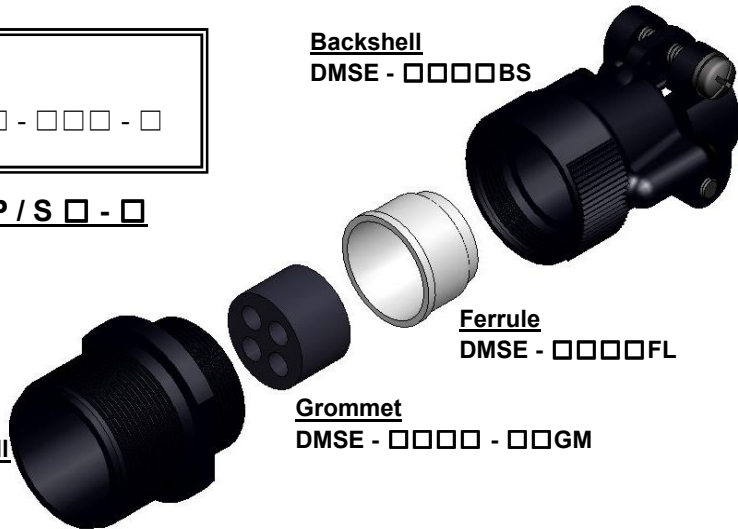


**Cable Receptacle Connector**

DMS3101E□□□□ - □□P / S□ - □□□ - □

DMS3101E□□□□ - □□P / S□ - □

**Cable Receptacle Shell**  
DMSE - □□□□CRS



**Backshell**  
DMSE - □□□□BS

**Ferrule**  
DMSE - □□□□FL

**Grommet**  
DMSE - □□□□ - □□GM

**Cable Clamp**  
CE3057 - □□A - □

**Waterproof Straight Backshell**  
DMSE - □□□□BSS

DMS3101E□□□□ - □□P / S□ - BS□ - □



**Waterproof Straight Backshell**  
DMSE - □□□□BSLS

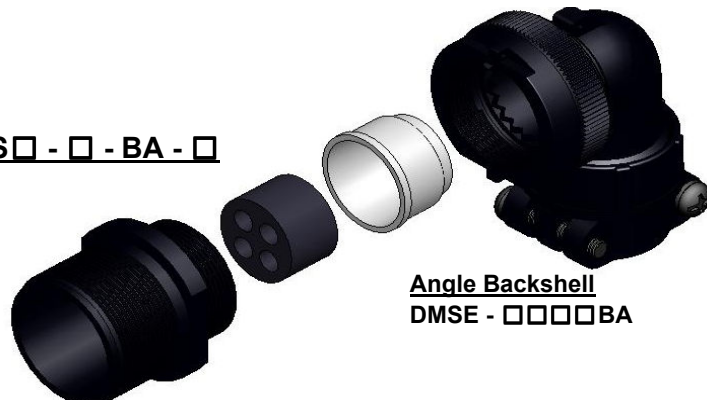
DMS3101E□□□□ - □□P / S□ - □ - BSN - □



**Cable Clamp**  
DMS3057 - □□AK

**Straight Backshell**  
DMSE - □□□□BSN

DMS3101E□□□□ - □□P / S□ - □ - BA - □



**Angle Backshell**  
DMSE - □□□□BA

**Box Mounting Receptacle Connector**

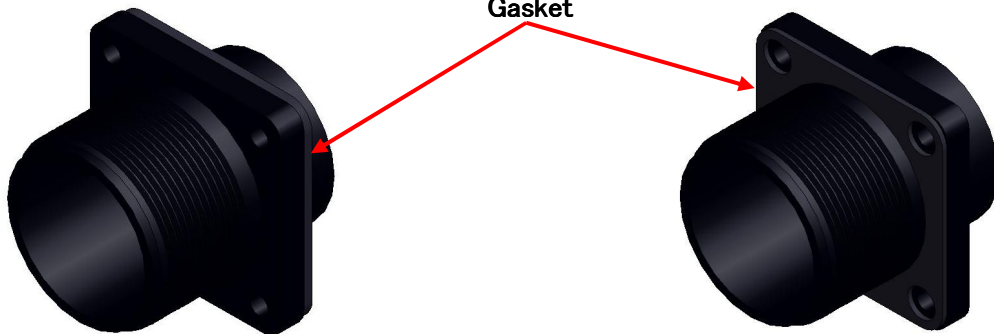
DMS3102E□□□□ - □□□□ - □

DMS3102R□□□□ - □□□□ - □ ( With Gasket )

DMS3102E□□□□ - □□ P / S □ - □



DMS3102R□□□□ - □□ P / S □ - □



**Straight Plug Connector**

DMS3106E□□□□ - □□□□ - □  
 DMS3106F□□□□ - □□□□ - □ ( With Gasket )

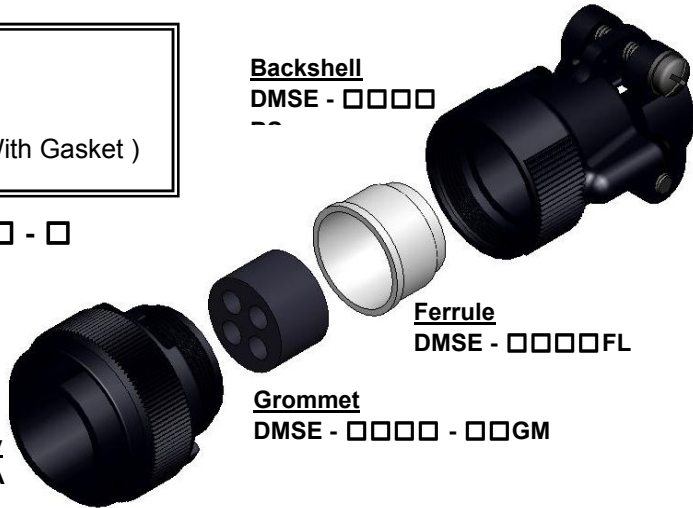
DMS3106F□□□□ - □□ P / S □ - □

**Plug Shell Assembly**  
 DMSE - □□□□PSA

**Backshell**  
 DMSE - □□□□  
 --

**Ferrule**  
 DMSE - □□□□FL

**Grommet**  
 DMSE - □□□□ - □□GM



**Cable Clamp**  
 CE3057A - □□ - □

**Waterproof Straight Backshell**  
 DMSE - □□□□BSS

DMS3106F□□□□ - □□ P / S □ - □ - BS□ - □



**Waterproof Long Straight Backshell**  
 DMSE - □□□□BSLS

**Cable Clamp**  
 DMS3057 - □□AK

DMS3106E□□□□ - □□ P / S □ - □ - BSN - 0

**Straight Backshell**  
 DMSE - □□□□BSN



**Backshell (Type - R)**  
 DMSE - □□□□BSR-□

DMS3106R□□□□ - □□ P / S □ - □



**Angle Plug Connector**

DMS3108E□□□□ - □□□□ - □

DMS3108F□□□□ - □□□□ - □ ( With Gasket )

DMS3108F□□□□ - □□ P / S □ - □

**Angle Backshell**

DMSE - □□□□BA

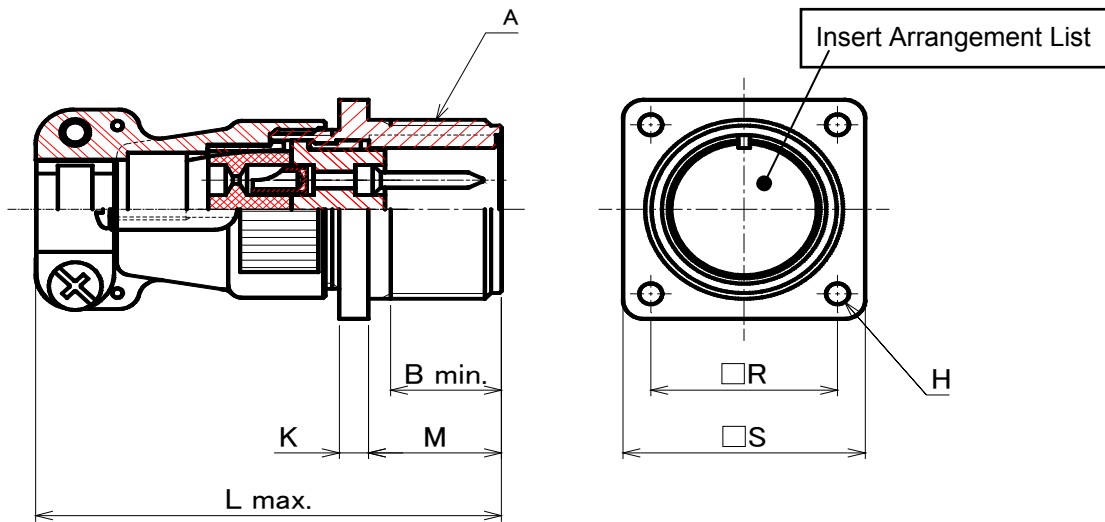


**Plug Shell Assembly**  
DMSE - □□□□PSA

**Ferrule**  
DMS - □□□□FL

**Grommet**  
DMSE - □□□□ - □□GM

**Wall Receptacle Connector**  
 DMS3100E□□□□ - □□□□ - □



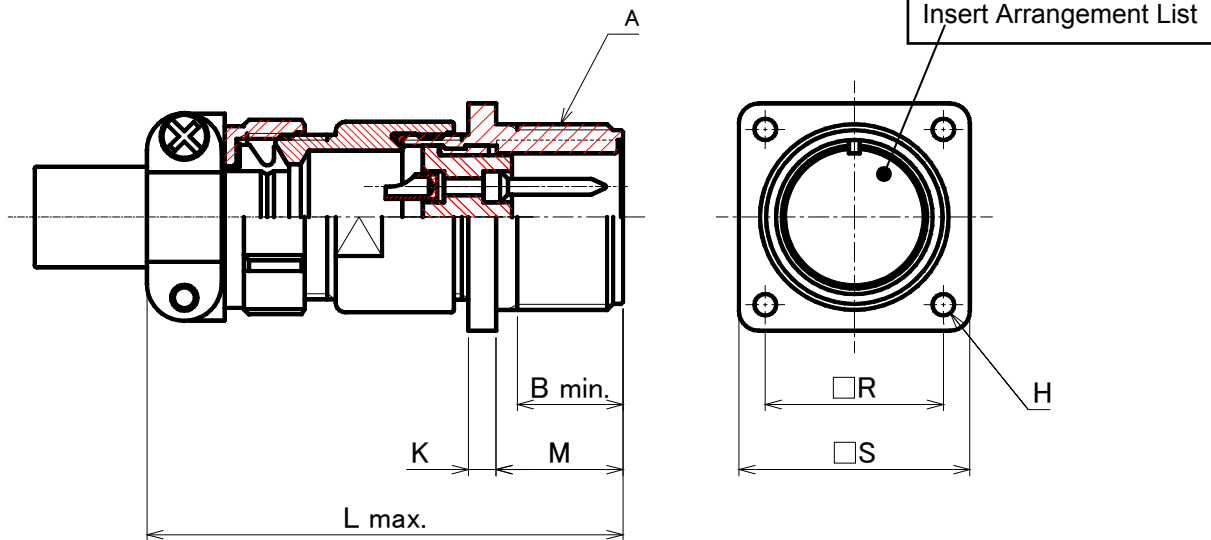
Shell Size	A	B	K±0.05	L	M <sub>0</sub> <sup>+0.78</sup>	R±0.12	S±0.5	ΦH <sub>L</sub> <sup>+0.25</sup> <sub>-0.12</sub>
10SL	5/8-24UNEF	12.0	2.2	52.5	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12.0	3.0	53.1	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11.0	2.9	59.3	14.6	23.01	30.18	3.3
16S	1-20UNEF	12.0	3.2	63.0	14.5	24.61	32.54	3.3
16	1-20UNEF	16.0	2.9	67.7	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16.0	4.2	69.2	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16.0	3.7	68.2	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16.0	4.0	70.9	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17.0	3.4	78.0	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18.0	3.4	78.0	21.3	39.67	50.80	3.8
32	2-18UNS	18.0	4.0	-	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18.0	4.1	75.0	22.4	49.20	63.50	4.5

# DMS E/F/R Series



## Wall Receptacle Connector

DMS3100E□□□□ - □□□□ - BSS - □

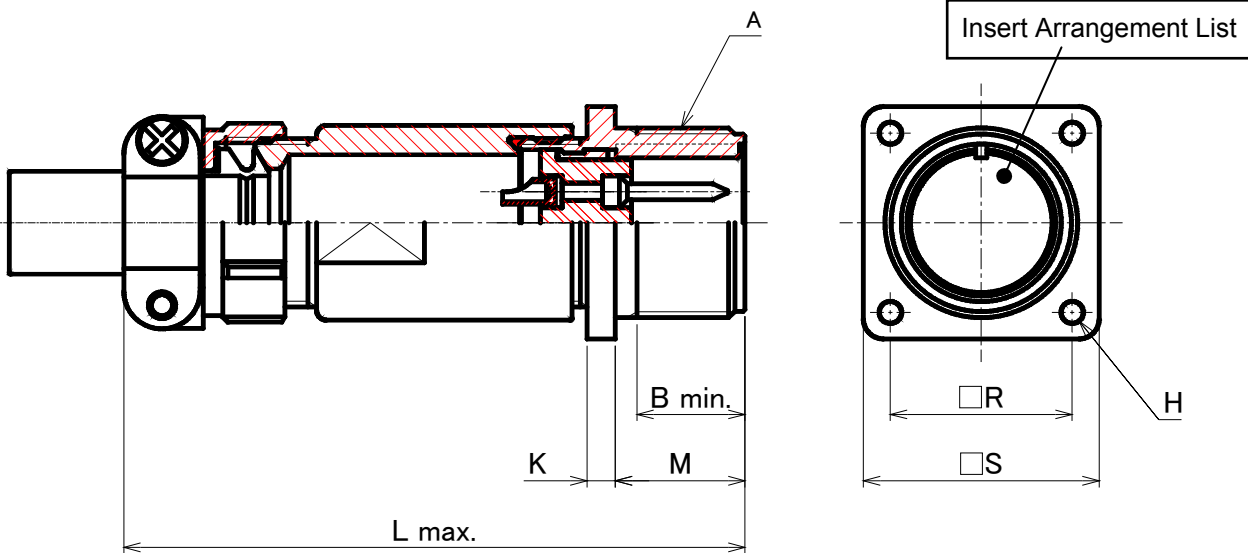


Shell Size	A	B	K±0.05	L	M <sub>0</sub> <sup>+0.78</sup>	R±0.12	S±0.5	ΦH <sub>L</sub> <sup>+0.25</sup> <sub>-0.12</sub>
10SL	5/8-24UNEF	12.0	2.2	54.7	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12.0	3.0	57.1	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11.0	2.9	62.5	14.6	23.01	30.18	3.3
16S	1-20UNEF	12.0	3.2	65.2	14.5	24.61	32.54	3.3
16	1-20UNEF	16.0	2.9	69.9	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16.0	4.2	72.1	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16.0	3.7	73.1	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16.0	4.0	78.0	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17.0	3.4	87.7	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18.0	3.4	93.6	21.3	39.67	50.80	3.8
32	2-18UNS	18.0	4.0	102.9	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18.0	4.1	108.8	22.4	49.20	63.50	4.5



## Wall Receptacle Connector

DMS3100E□□□□ - □□□□ - BSL - □



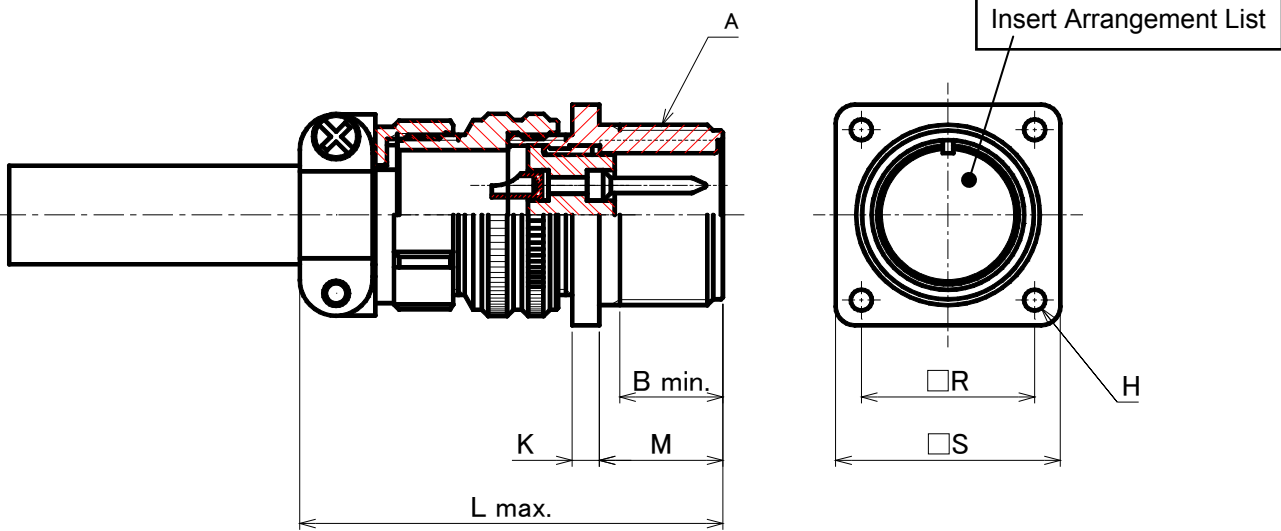
Shell Size	A	B	K±0.05	L	M <sub>0</sub> <sup>+0.78</sup>	R±0.12	S±0.5	ΦH <sub>L</sub> <sup>+0.25</sup> <sub>-0.12</sub>
10SL	5/8-24UNEF	12.0	2.2	74.7	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12.0	3.0	77.1	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11.0	2.9	82.5	14.6	23.01	30.18	3.3
16S	1-20UNEF	12.0	3.2	85.2	14.5	24.61	32.54	3.3
16	1-20UNEF	16.0	2.9	89.9	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16.0	4.2	112.1	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16.0	3.7	93.1	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16.0	4.0	98.0	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17.0	3.4	107.7	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18.0	3.4	113.6	21.3	39.67	50.80	3.8
32	2-18UNS	18.0	4.0	122.9	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18.0	4.1	128.8	22.4	49.20	63.50	4.5

# DMS E/F/R Series



## Wall Receptacle Connector

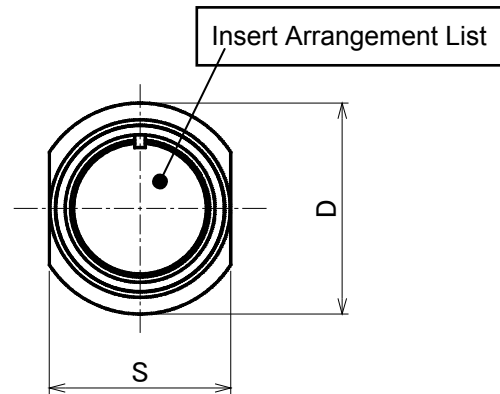
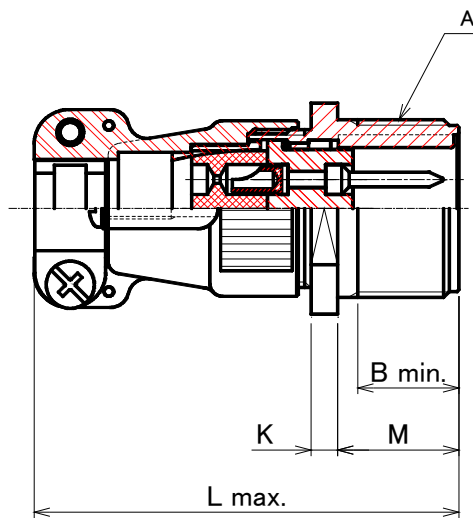
DMS3100E□□□□ - □□□□ - BSN - □



Shell Size	A	B	K±0.05	L	M <sub>0</sub> <sup>+0.78</sup>	R±0.12	S±0.5	ΦH <sub>0.12</sub> <sup>+0.25</sup>
10SL	5/8-24UNEF	12.0	2.2	50.1	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12.0	3.0	54.5	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11.0	2.9	53.7	14.6	23.01	30.18	3.3
16S	1-20UNEF	12.0	3.2	58.4	14.5	24.61	32.54	3.3
16	1-20UNEF	16.0	2.9	63.1	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16.0	4.2	65.8	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16.0	3.7	68.6	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16.0	4.0	67.5	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17.0	3.4	73.4	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18.0	3.4	75.0	21.3	39.67	50.80	3.8
32	2-18UNS	18.0	4.0	74.7	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18.0	4.1	78.7	22.4	49.20	63.50	4.5

## Cable Receptacle Connector

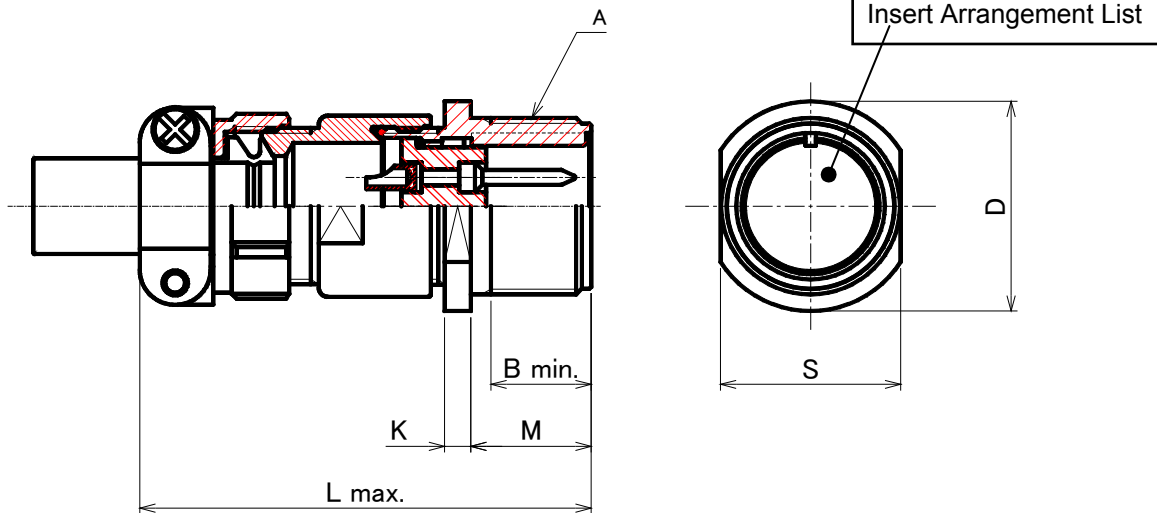
DMS3101E□□□□ - □□□□ - □



Shell Size	A	B	L	$\Phi D_{\pm 0.5}$	$S_{\pm 0.5}$
10SL	5/8-24UNEF	12.0	52.0	22.0	16.5
12S	3/4-20UNEF	12.0	53.1	25.0	19.3
14S	7/8-20UNEF	11.0	59.3	28.0	22.6
16S	1-20UNEF	12.0	63.0	31.0	25.5
16	1-20UNEF	16.0	67.7	31.0	25.5
18	1 1/8-18UNEF	16.0	69.2	33.9	28.7
20	1 1/4-18UNEF	16.0	70.9	37.0	32.0
22	1 3/8-18UNEF	16.0	70.9	40.0	35.0
24	1 1/2-18UNEF	17.0	78.0	43.3	38.2
28	1 3/4-18UNS	18.0	78.0	49.5	44.7
32	2-18UNS	18.0	-	55.5	50.8
36	2 1/4-16UN	18.0	75.0	62.3	57.3

## Cable Receptacle Connector

DMS3101E□□□□ - □□□□ - BSS - □



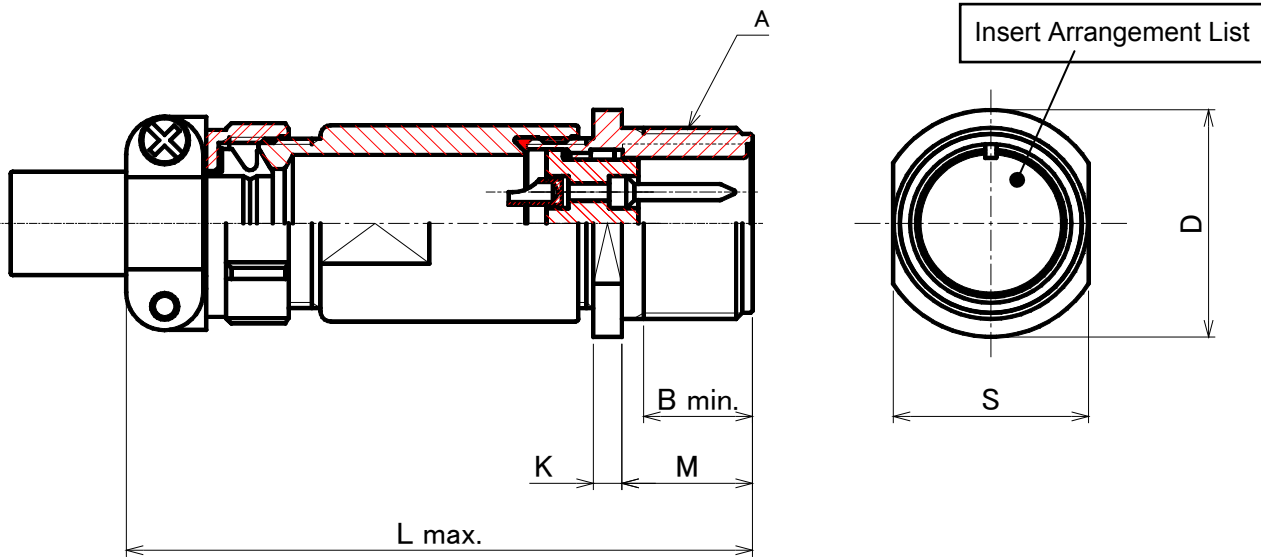
Shell Size	A	B	L	$\Phi D_{\pm 0.5}$	$S_{\pm 0.5}$
10SL	5/8-24UNEF	12.0	54.7	22.0	16.5
12S	3/4-20UNEF	12.0	57.1	25.0	19.3
14S	7/8-20UNEF	11.0	62.5	28.0	22.6
16S	1-20UNEF	12.0	65.2	31.0	25.5
16	1-20UNEF	16.0	69.9	31.0	25.5
18	1 1/8-18UNEF	16.0	72.1	33.9	28.7
20	1 1/4-18UNEF	16.0	73.1	37.0	32.0
22	1 3/8-18UNEF	16.0	78.0	40.0	35.0
24	1 1/2-18UNEF	17.0	87.7	43.3	38.2
28	1 3/4-18UNS	18.0	93.6	49.5	44.7
32	2-18UNS	18.0	102.9	55.5	50.8
36	2 1/4-16UN	18.0	108.8	62.3	57.3

# DMS E/F/R Series



## Cable Receptacle Connector

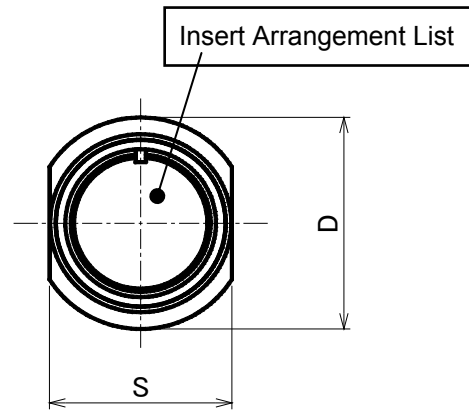
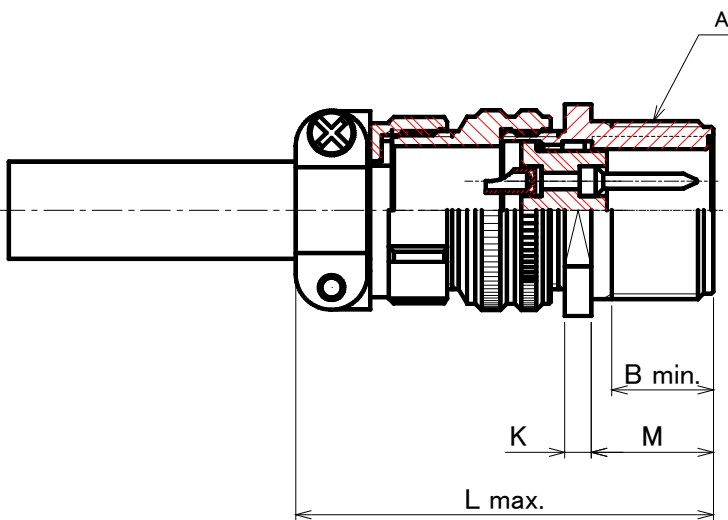
DMS3101E□□□□ - □□□□ - BSL - □



Shell Size	A	B	L	$\Phi D_{\pm 0.5}$	$S_{\pm 0.5}$
10SL	5/8-24UNEF	12.0	74.7	22.0	16.5
12S	3/4-20UNEF	12.0	77.1	25.0	19.3
14S	7/8-20UNEF	11.0	82.5	28.0	22.6
16S	1-20UNEF	12.0	85.2	31.0	25.5
16	1-20UNEF	16.0	89.9	31.0	25.5
18	1 1/8-18UNEF	16.0	92.1	33.9	28.7
20	1 1/4-18UNEF	16.0	93.1	37.0	32.0
22	1 3/8-18UNEF	16.0	98.0	40.0	35.0
24	1 1/2-18UNEF	17.0	107.7	43.3	38.2
28	1 3/4-18UNS	18.0	113.6	49.5	44.7
32	2-18UNS	18.0	122.9	55.5	50.8
36	2 1/4-16UN	18.0	128.8	62.3	57.3

## Cable Receptacle Connector

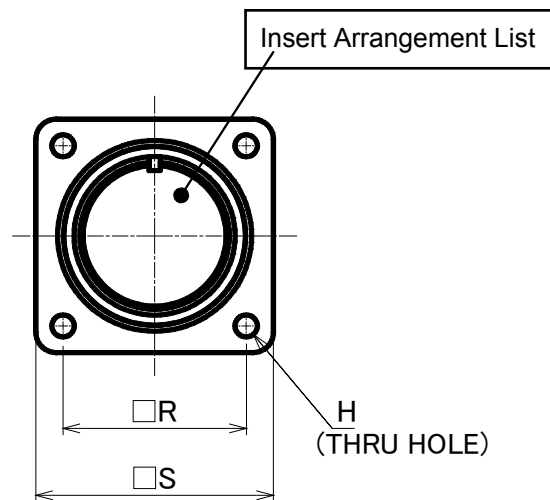
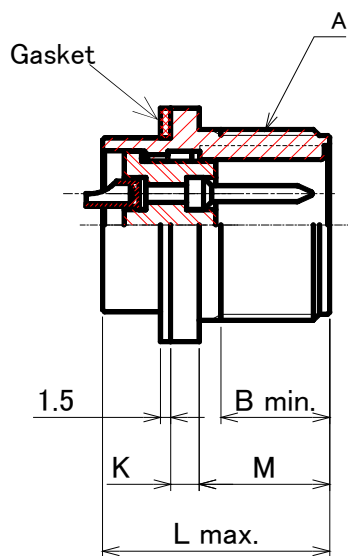
DMS3101E□□□□ - □□□□ - BSN - □



Shell Size	A	B	L	$\Phi D_{\pm 0.5}$	$S_{\pm 0.5}$
10SL	5/8-24UNEF	12.0	50.1	22.0	16.5
12S	3/4-20UNEF	12.0	54.5	25.0	19.3
14S	7/8-20UNEF	11.0	53.7	28.0	22.6
16S	1-20UNEF	12.0	58.4	31.0	25.5
16	1-20UNEF	16.0	63.1	31.0	25.5
18	1 1/8-18UNEF	16.0	65.8	33.9	28.7
20	1 1/4-18UNEF	16.0	68.6	37.0	32.0
22	1 3/8-18UNEF	16.0	67.5	40.0	35.0
24	1 1/2-18UNEF	17.0	73.4	43.3	38.2
28	1 3/4-18UNS	18.0	75.0	49.5	44.7
32	2-18UNS	18.0	74.7	55.5	50.8
36	2 1/4-16UN	18.0	78.7	62.3	57.3

## Box Receptacle Connector

DMS3102E□□□□ - □□□□ - □  
 DMS3102R□□□□ - □□□□ - □ ( With Gasket )

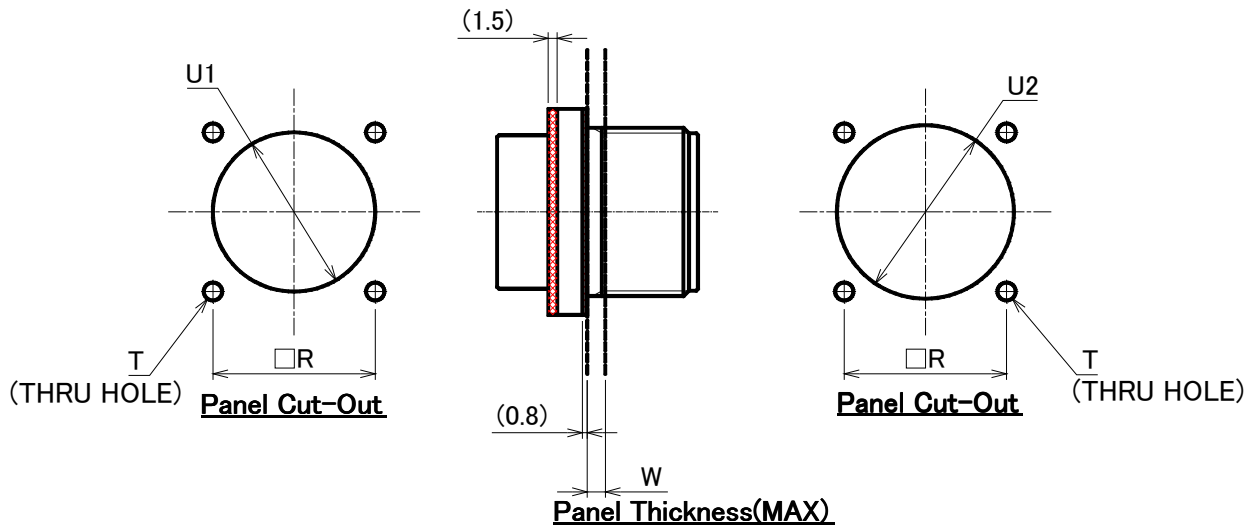


Shell Size	A	B	K±0.05	L	M <sub>0</sub> <sup>+0.78</sup>	R±0.12	S±0.5	ΦH <sub>-0.12</sub> <sup>+0.25</sup>
10SL	5/8-24UNEF	12.0	2.2	25.0	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12.0	3.0	27.0	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11.0	2.9	26.5	14.6	23.01	30.18	3.3
16S	1-20UNEF	12.0	3.2	25.6	14.5	24.61	32.54	3.3
16	1-20UNEF	16.0	2.9	33.3	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16.0	4.2	33.4	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16.0	3.7	32.1	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16.0	4.0	35.0	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17.0	3.4	36.0	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18.0	3.4	36.7	21.3	39.67	50.80	3.8
32	2-18UNS	18.0	4.0	39.0	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18.0	4.1	39.5	22.4	49.20	63.50	4.5

## Box Receptacle Connector

DMS3102E□□□□ - □□□□ - □

DMS3102R□□□□ - □□□□ - □ ( With Gasket )



Shell Size	R±0.12	$\Phi U1 \begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$	$\Phi U2 \begin{smallmatrix} +0.2 \\ 0 \end{smallmatrix}$	T	W
10SL	18.26	15.5	16.7	3.05	3.0
12S	20.62	16.8	19.9	3.05	3.0
14S	23.01	20.0	23.1	3.05	3.0
16S	24.61	23.0	26.3	3.05	3.0
16	24.61	22.9	26.3	3.05	3.0
18	26.94	27.0	29.4	3.05	3.0
20	29.36	30.0	32.6	3.05	3.0
22	31.75	33.0	35.8	3.05	3.0
24	34.93	36.3	39.0	3.75	3.0
28	39.67	43.0	45.3	3.75	3.0
32	44.45	48.3	51.6	4.40	3.0
36	49.23	54.3	57.9	4.40	3.0

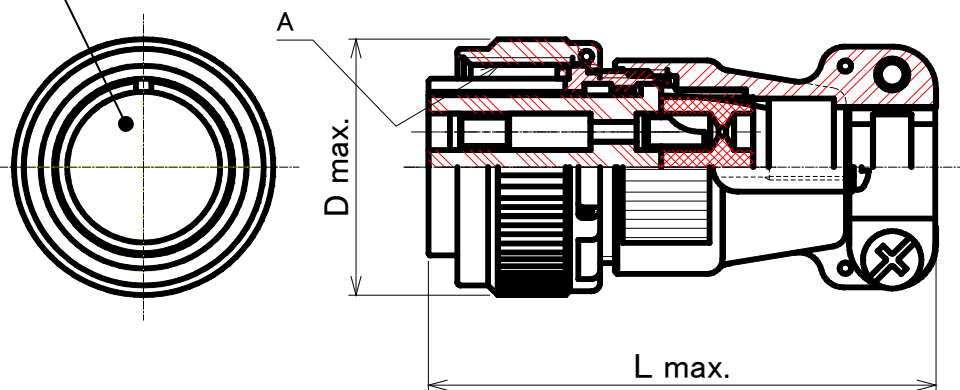


## Straight Plug Connector

DMS3106E□□□□ - □□□□ - □  
 DMS3106F□□□□ - □□□□ - □ ( With Gasket )



Insert Arrangement List



Shell Size	A	L	ΦD
10SL	5/8-24UNEF	43.6	22.30
12S	3/4-20UNEF	43.4	26.25
14S	7/8-20UNEF	43.8	28.90
16S	1-20UNEF	47.4	31.90
16	1-20UNEF	54.4	31.90
18	1 1/8-18UNEF	55.9	33.80
20	1 1/4-18UNEF	55.2	37.55
22	1 3/8-18UNEF	59.2	40.85
24	1 1/2-18UNEF	63.0	43.70
28	1 3/4-18UNS	63.6	50.70
32	2-18UNS	-	57.20
36	2 1/4-16UN	61.0	63.20

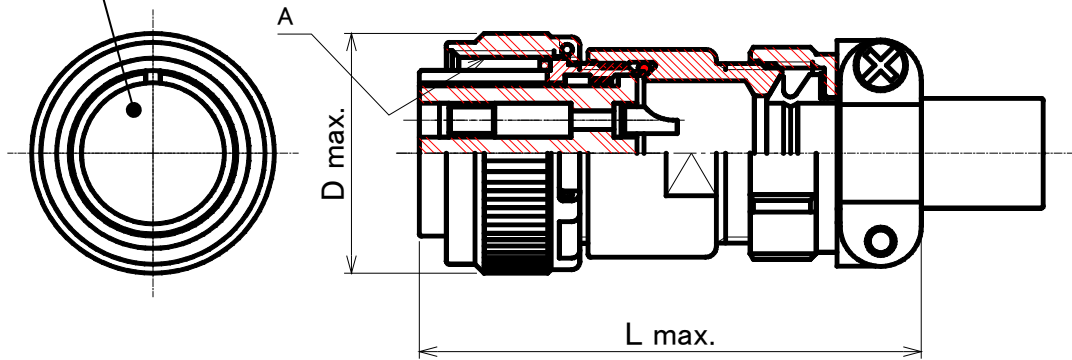
## Straight Plug Connector

DMS3106E□□□□ - □□□□ - □

DMS3106F□□□□ - □□□□ - BSS - □ ( With Gasket )



Insert Arrangement List



Shell Size	A	L	ΦD
10SL	5/8-24UNEF	54.8	22.30
12S	3/4-20UNEF	56.1	26.25
14S	7/8-20UNEF	62.0	28.90
16S	1-20UNEF	63.8	31.90
16	1-20UNEF	68.6	31.90
18	1 1/8-18UNEF	70.0	33.80
20	1 1/4-18UNEF	72.3	37.55
22	1 3/8-18UNEF	78.0	40.85
24	1 1/2-18UNEF	86.7	43.70
28	1 3/4-18UNS	91.9	50.70
32	2-18UNS	100.9	57.20
36	2 1/4-16UN	105.3	63.20

# DMS E/F/R Series

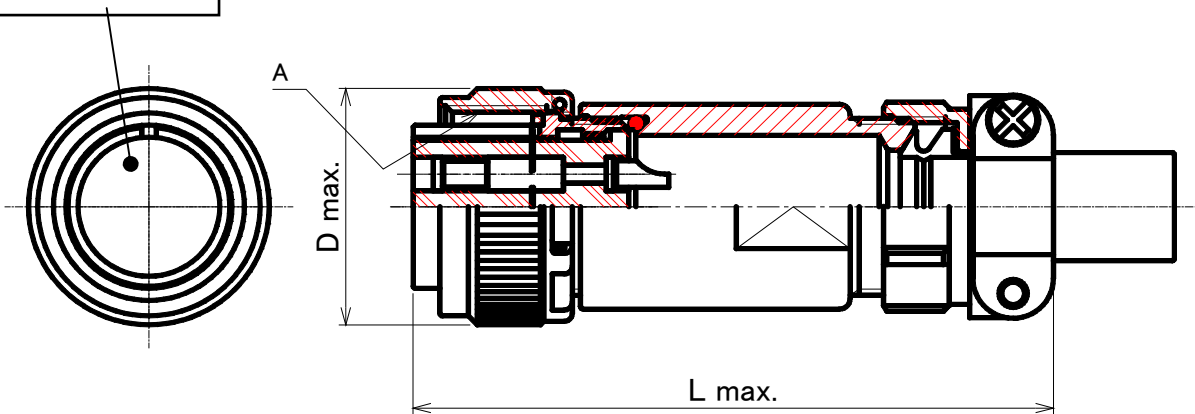


## Straight Plug Connector

DMS3106E□□□□ - □□□□ - □  
 DMS3106F□□□□ - □□□□ - BSL - □ ( With Gasket )



Insert Arrangement List



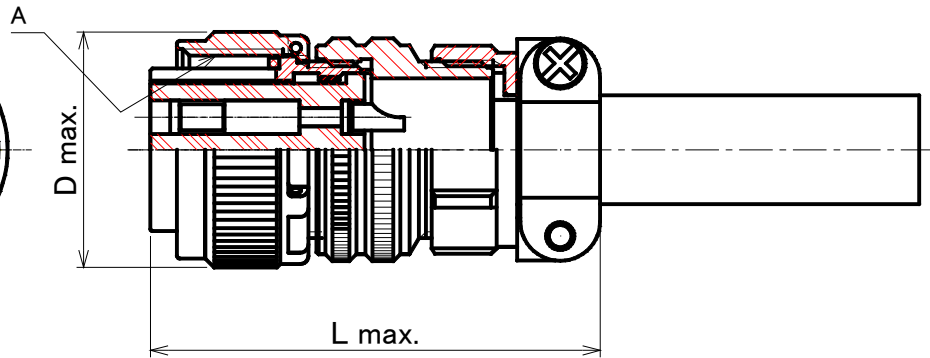
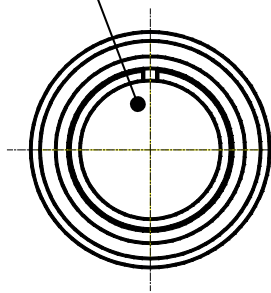
Shell Size	A	L	ΦD
10SL	5/8-24UNEF	74.8	22.30
12S	3/4-20UNEF	76.1	26.25
14S	7/8-20UNEF	82.0	28.90
16S	1-20UNEF	83.8	31.90
16	1-20UNEF	88.6	31.90
18	1 1/8-18UNEF	90.0	33.80
20	1 1/4-18UNEF	92.3	37.55
22	1 3/8-18UNEF	98.0	40.85
24	1 1/2-18UNEF	106.7	43.70
28	1 3/4-18UNS	111.9	50.70
32	2-18UNS	120.9	57.20
36	2 1/4-16UN	125.3	63.20

## Straight Plug Connector

DMS3106E□□□□ - □□□□ - □  
 DMS3106F□□□□ - □□□□ - BSN - □ ( With Gasket )



Insert Arrangement List



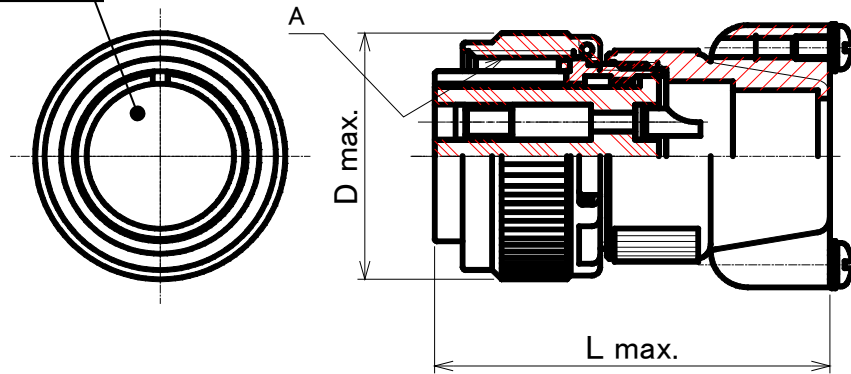
Shell Size	A	L	ΦD
10SL	5/8-24UNEF	50.1	22.30
12S	3/4-20UNEF	53.5	26.25
14S	7/8-20UNEF	63.0	28.90
16S	1-20UNEF	57.0	31.90
16	1-20UNEF	61.8	31.90
18	1 1/8-18UNEF	63.7	33.80
20	1 1/4-18UNEF	67.8	37.55
22	1 3/8-18UNEF	66.0	40.85
24	1 1/2-18UNEF	72.4	43.70
28	1 3/4-18UNS	73.3	50.70
32	2-18UNS	72.7	57.20
36	2 1/4-16UN	75.2	63.20

## Straight Plug Connector

DMS3106R□□□□ - □□□□ - □ ( With Gasket )



Insert Arrangement List



Shell Size	A	L	ΦD
10SL	5/8-24UNEF	43.6	22.30
12S	3/4-20UNEF	43.4	26.25
14S	7/8-20UNEF	43.8	28.90
16S	1-20UNEF	47.4	31.90
16	1-20UNEF	54.4	31.90
18	1 1/8-18UNEF	55.9	33.80
20	1 1/4-18UNEF	55.2	37.55
22	1 3/8-18UNEF	59.2	40.85
24	1 1/2-18UNEF	63.0	43.70
28	1 3/4-18UNS	63.6	50.70
32	2-18UNS	-	57.20
36	2 1/4-16UN	61.0	63.20

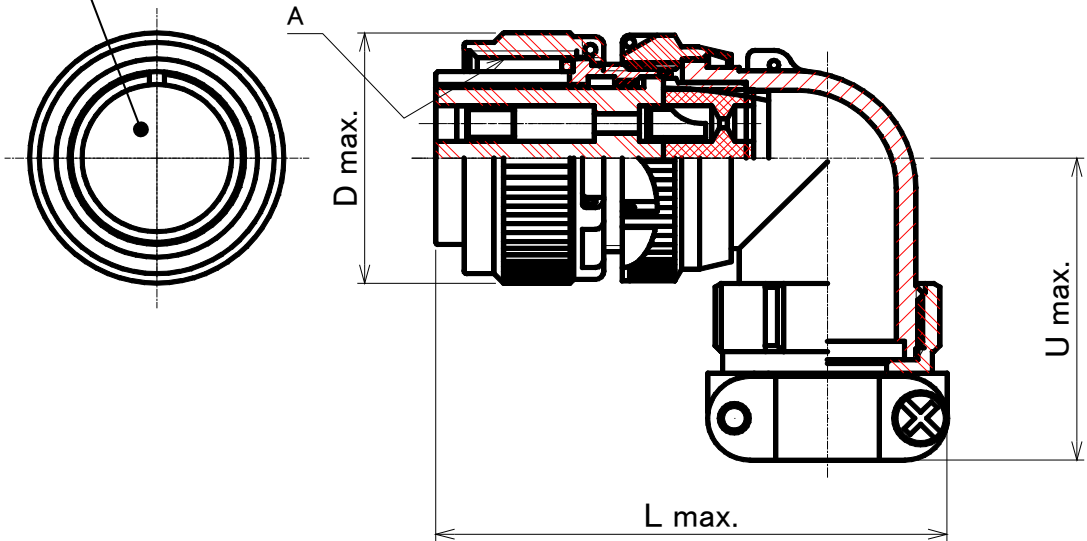
## Angle Plug Connector

DMS3108E□□□□ - □□□□ - □

DMS3108F□□□□ - □□□□ - □ ( With Gasket )



Insert Arrangement List



Shell Size	A	L	ΦD	U
10SL	5/8-24UNEF	55.6	22.30	38.1
12S	3/4-20UNEF	55.6	26.25	38.1
14S	7/8-20UNEF	58.7	28.90	40.5
16S	1-20UNEF	61.1	31.90	42.9
16	1-20UNEF	70.6	31.90	42.9
18	1 1/8-18UNEF	52.2	33.80	45.2
20	1 1/4-18UNEF	82.6	37.55	50.0
22	1 3/8-18UNEF	82.6	40.85	50.8
24	1 1/2-18UNEF	94.5	43.70	54.0
28	1 3/4-18UNS	94.5	50.70	55.6
32	2-18UNS	106.4	57.20	68.9
36	2 1/4-16UN	109.1	63.20	69.1

## Accessories

### Backshell

#### Backshell

DMSE - □□□□BS



#### Waterproof Straight Backshell

DMSE - □□□□BSS



#### Waterproof Long Straight Backshell

DMSE - □□□□BSLS



#### Straight Backshell

DMSE - □□□□BSN



#### Angle Backshell

DMSE - □□□□BA



#### Backshell (Type-R)

DMSE - □□□□BSR



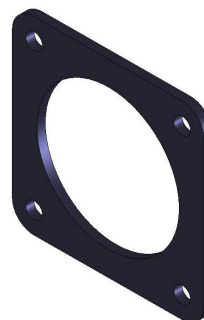
#### Front Gasket of Receptacle

DMSE - □□□□FG



#### Rear Gasket of Receptacle

DMSE - □□□□RG



## Accessories

### Cable Clamp

Cable Clamp  
DMS3057 - □□AK

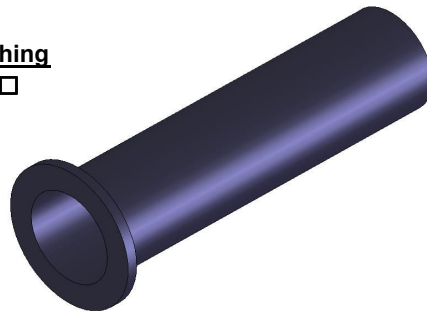


Waterproof Cable Clamp  
CE3057 - □□A - □

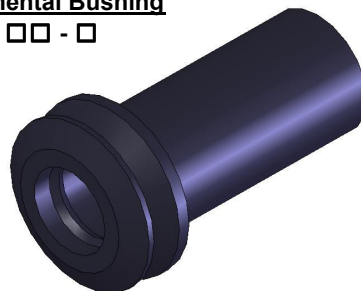


### Bushing

Rubber Bushing  
AN3420 - □□



Environmental Bushing  
CE3420 - □□ - □





# DMS E/F/R Part Numbering System

DMS E/F/R Series  
MIL-C-5015

Date: July 18, 2008  
Revision: A  
Issued by: DDK Industrial Duty Connectors Division

DMS 3106 F 20 - 29 S W - C - BSS - 1  
1 2 3 4 5 6 7 8 9 10

See code below:

## 1. Series

DMS : Chromate Finish

## 2.Shell Style

3100 : Wall connecting receptacle (in-line receptacle)  
3101 : Cable connecting receptacle (in-line receptacle)  
3102 : Box mounting receptacle  
3106 : Straight plug  
3106R : Straight plug  
3108 : 90 degree angle plug

## 3.Service Class(Connector Class)

E : Environmental with rubber insert  
F : Environmental with rubber insert and gasket.  
R : Environmental with rubber insert and gasket (3102).  
R : Environmental with rubber insert and potting backshell (3100, 3101, 3106).

## 4.Shell Size

20 : 20 size

Shell size 10SL,14S,16S through 36 available

## 5.Insert Arrangement

20-29 : 20-29 Insert  
Refer to pages xx-xx for insert availability

## 6.Contact Configuration (style)

P : Solder pin contacts  
S : Solder socket contacts  
PC : Crimp pin contacts  
SC : Crimp socket contacts

## 7.Insert Rotation

Omit: Normal position  
W,"X","Y","Z" : Refer to page 6

## 8. Deviations

Omit : Black chromate finish  
A : Olive drab chromate finish

## 9.Backshell Style

BSS : With waterproof straight backshell  
BSL : With Long waterproof backshell  
BSN : With non - waterproof straight backshell  
Omit : Refer to the following name of articles  
3100E /3101E: With waterproof straight backshell grommet and ferrule  
3106E / F / R : With waterproof straight backshell grommet and ferrule  
3108E / F : With waterproof angle backshell grommet and ferrule

## 10.Applicable Cable Diameter

0 : With non - waterproof cable clamp (Refer to table 1)  
1~8 : With waterproof cable clamp (Refer to table 2)

**Table 1**

Number	Cable Clamp P/N	Shell Size	Bushing Used	Applicable Cable Diameter
0	DMS3057-4AK	10SL,12S	AN3420-4	Φ5.6max
0	DMS3057-6AK	14S	AN3420-6	Φ7.9max
0	DMS3057-8AK	16S,16	AN3420-8	Φ8-Φ10.5
0	DMS3057-10AK	18	AN3420-10	Φ10.5-Φ14.1
0	DMS3057-12AK	20,22	AN3420-12	Φ8.5-Φ11
0	DMS3057-16AK	24,28	AN3420-16	Φ6.5-Φ8.7
0	DMS3057-20AK	32	AN3420-20	Φ12.5-Φ16
0	DMS3057-24AK	36	AN3420-24	Φ9.5-Φ13

**Table 2**

Number	Cable Clamp P/N	Shell Size	Bushing Used	Applicable Cable Diameter
1	CE3057-4A-1(Dxxx)	10SL,12S	CE3420-4-1	Φ3.6-Φ5.6
1	CE3057-6A-1(Dxxx)	14S	CE3420-6-1	Φ7-Φ9
1	CE3057-8A-1(Dxxx)	16S,16	CE3420-8-1	Φ8-Φ10.5
1	CE3057-10A-1(Dxxx)	18	CE3420-10-1	Φ10.5-Φ14.1
2	CE3057-10A-2 (Dxxx)		CE3420-10-2	Φ8.5-Φ11
3	CE3057-10A-3 (Dxxx)		CE3420-10-3	Φ6.5-Φ8.7
1	CE3057-12A-1(Dxxx)	20,22	CE3420-12-1	Φ12.5-Φ16
2	CE3057-12A-2 (Dxxx)		CE3420-12-2	Φ9.5-Φ13
3	CE3057-12A-3 (Dxxx)		CE3420-12-3	Φ6.8-Φ10
7	CE3057-12A-7 (Dxxx)		CE3420-12-7	Φ15-Φ17
1	CE3057-16A-1(Dxxx)	24,28	CE3420-16-1	Φ15-Φ19.1
2	CE3057-16A-2 (Dxxx)		CE3420-16-2	Φ13-Φ15.5
4	CE3057-16A-4 (Dxxx)		CZY005-GB-3	Φ19.1-Φ21.5
6	CE3057-16A-6 (Dxxx)		CE3420-16-6	Φ18-Φ20
7	CE3057-16A-7 (Dxxx)		CE3420-16-7	Φ12.5-Φ14
8	CE3057-16A-8 (Dxxx)		CE3420-16-8	Φ11-Φ12.5
1	CE3057-20A-1 (Dxxx)	32	CE3420-20-1	Φ22-Φ23.8
2	CE3057-20A-2 (Dxxx)		CE3420-20-2	Φ24-Φ26.6
3	CE3057-20A-3 (Dxxx)		CE3420-20-3	Φ20-Φ22.5
1	CE3057-24A-1 (Dxxx)	36	CE3420-24-1	Φ30-Φ32.5
2	CE3057-24A-2 (Dxxx)		CE3420-24-2	Φ27.5-Φ29.5