

MIL-DTL-5015 Compatible Environment Resistant Type.

DMS E/F/R Series

DDK Ltd.

Conforming
Standard
MIL-DTL-5015

Non-RoHS

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-DTL-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.



Waterproof
IP55

Lock Type
Threaded
Coupling

FEATURES

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

MATERIAL / FINISH

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

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.

Receptacle Connector



Wall Receptacle
DMS3100E

Cable Receptacle
DMS3101E

Box Receptacle
DMS3102E / R

Plug Connector



Straight Plug
DMS3106E / F

Angle Plug
DMS3108E / F

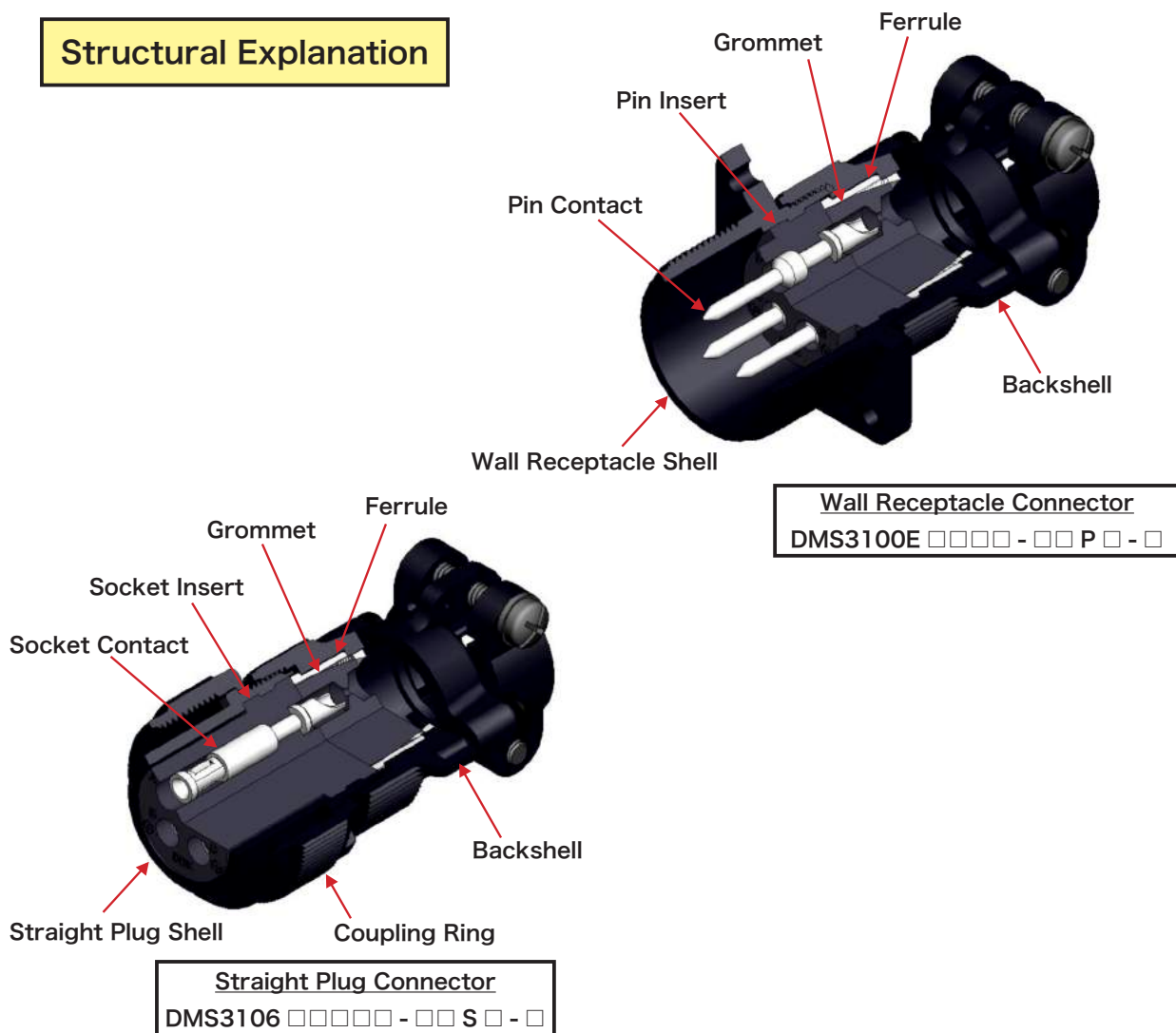
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► DMS E/F/R Series

Specification

Insulation Resistance	More than 500M Ω 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% $\pm$ 3% Temperature : 71°C $\pm$ 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



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Contact

---Solder Type---

Pin Contact

DMSE - # □ □ P □



Socket Contact

DMSE - # □ □ S □



---Crimp Type---

Pin Contact

DMSE - # □ □ P □ - C □



Socket Contact

DMSE - # □ □ S □ - C □



Applicable Wire

Contact Size	AWG	Sectional Area Capacitance (mm ²)	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

Rated Current

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

Rated Voltage

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

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Insert Arrangement List

Contact Size



#16

#12

#8

#4

#0

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

Number of Contact	1	2		
Insert Arrangement				
Insert Number	20 - 2	10SL - 4	12S - 3	18 - 3
Contact Size	1 - #0	2 - #16	2 - #16	2 - #12
Service Rating	Serv. D	Serv. A	Serv. A	Serv. D

Number of Contact	3			
Insert Arrangement				
Insert Number	10SL - 3	14S - 7	16S - 5	16 - 10
Contact Size	3 - #16	3 - #16	3 - #16	3 - #12
Service Rating	Serv. A	Serv. A	Serv. A	Serv. A

Number of Contact	4				
Insert Arrangement					
Insert Number	14S - 2	16 - 9	18 - 10	22 - 22	32 - 17
Contact Size	4 - #16	2 - #16 / 2 - #12	4 - #12	4 - #8	4 - #4
Service Rating	Serv. INST.	Serv. A	Serv. A	Serv. A	Serv. D

Number of Contact	5			
Insert Arrangement				
Insert Number	14S - 5	16S - 8	18 - 11	28 - 5B
Contact Size	5 - #16	5 - #16	5 - #12	2 - #4 / 3 - #8
Service Rating	Serv. INST.	Serv. A	Serv. A	Serv. D (A, B) Serv. A (C, D, E)

Note: Serv = Service Rating

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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.

Number of Contact	6		7		
Insert Arrangement					
Insert Number	14S - 6	36 - 3	16S - 1	20 - 15	24 - 10
Contact Size	6 - #16	3 - #0 / 3 - #12	7 - #16	7 - #12	7 - #8
Service Rating	Serv. INST.	Serv. D	Serv. A	Serv. A	Serv. A

Number of Contact	10		11
Insert Arrangement			
Insert Number	18 - 1	18 - 19	20 - 33
Contact Size	10 - #16	10 - #16	11 - #16
Service Rating	Serv.A (B,C,F,G) Serv.INST. (Others)	Serv. A	Serv. A

Number of Contact	14		17	19
Insert Arrangement				
Insert Number	20 - 27	22 - 19	20 - 29	22 - 14
Contact Size	14 - #16	14 - #16	17 - #16	19 - #16
Service Rating	Serv. A	Serv. A	Serv. A	Serv. A

Number of Contact	24	37	48
Insert Arrangement			
Insert Number	24 - 28	28 - 21	36 - 10
Contact Size	24 - #16	37 - #16	48 - #16
Service Rating	Serv. INST.	Serv. A	Serv. A

Note: Serv = Service Rating

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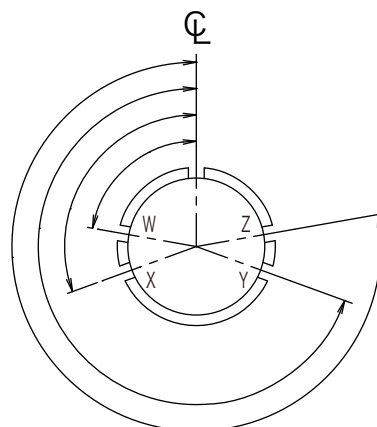
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DMS E/F/R Series

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

 DMS E/F/R Series

Insert Specifications

Insert No	No.of Contacts	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					5	A
16	16-9				2	2	A
	16-10				3		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)

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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

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Wall Receptacle Connector

DMS3100E □□□□ - □□ P / S □ - □□□ - □

※ Attached Articles

DMS3100E □□□□ - □□ P / S □ - □



DMS3100E □□□□ - □□ P / S □ - BS □ - □

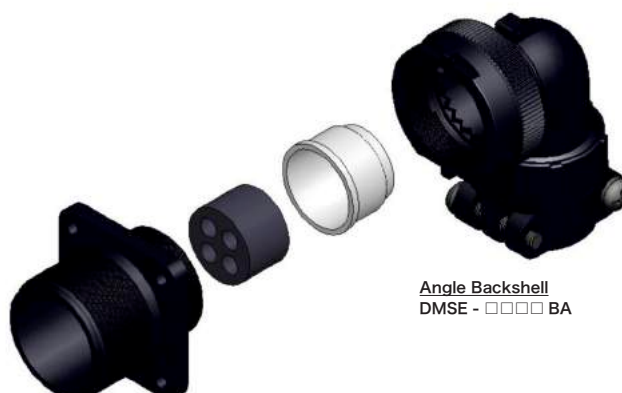


DMS3100E □□□□ - □□ P / S □ - □ - BSN - □



Waterproof Straight Backshell
DMSE - □□□□ BSLS

DMS3100E □□□□ - □□ P / S □ - □ - BA - □



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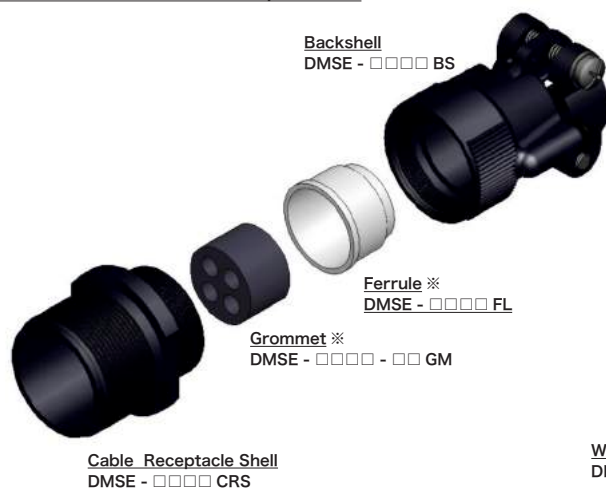
DMS E/F/R Series

Cable Receptacle Connector

DMS3101E □□□□ - □□ P / S □ - □□□ - □

※ Attached Articles

DMS3101E □□□□ - □□ P / S □ - □



DMS3101E □□□□ - □□ P / S □ - BS □ - □



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



DMS3101E □□□□ - □□ P / S □ - □ - BA - □



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▶ DMS E/F/R Series

Box Mounting Receptacle Connector

DMS3102E □□□□ - □□□□ - □

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

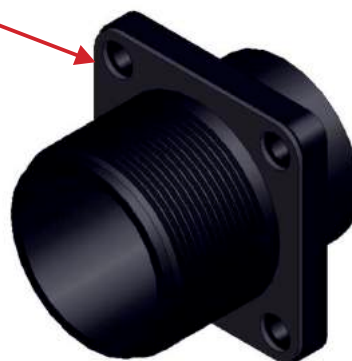
DMS3102E □□□□ - □□ P / S □ - □



DMS3102R □□□□ - □□ P / S □ - □



Gasket



DMS E/F/R Series

Straight Plug Connector

DMS3106E □□□□ - □□□□ - □

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

※ Attached Articles

DMS3106F □□□□ - □□ P / S □ - □



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



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



DMS3106R □□□□ - □□ P / S □ - □



▶ DMS E/F/R Series

Angle Plug Connector

DMS3108E □□□□ - □□□□ - □

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

※ Attached Articles

DMS3108F □□□□ - □□ P / S □ - □

Angle Backshell
DMSE - □□□□ BA

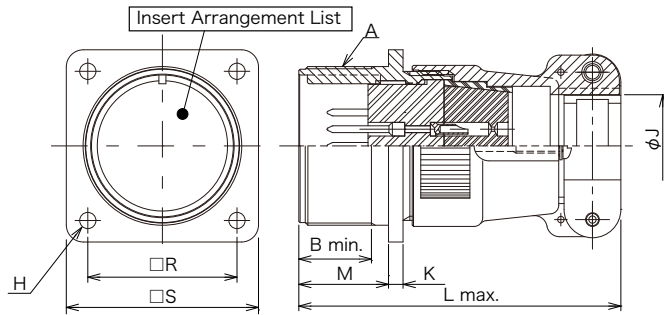


Plug Shell Assembly
DMSE - □□□□ PSA

DMS E/F/R Series

Wall Receptacle Connector

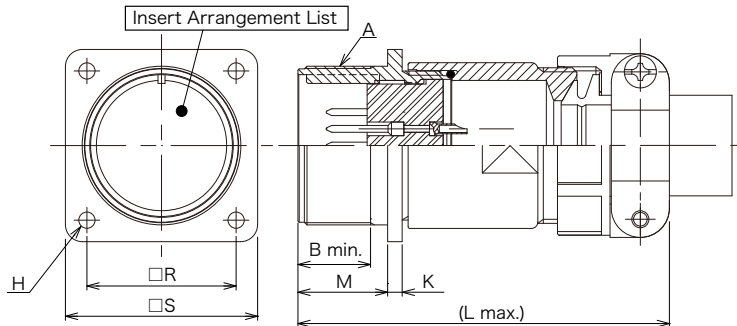
DMS3100E □□□□ - □□□□ - □



Shell Size	A	B	K±0.05	L	M ^{+0.78 0}	R±0.12	S±0.5	φ H ^{+0.25 -0.12}	φ J±0.3
10SL	5/8-24UNEF	11	2.2	51	14.5	18.26	25.40	3.0	8.0
12S	3/4-20UNEF	12	3.0	52	14.6	20.62	27.80	3.3	8.3
14S	7/8-20UNEF	11	2.9	54	14.6	23.01	30.18	3.3	11.1
16S	1-20UNEF	12	3.2	60	14.5	24.61	32.54	3.3	14.2
16	1-20UNEF	16	2.9	65	19.5	24.61	32.54	3.3	14.2
18	1 1/8-18UNEF	16	4.2	69	19.2	26.94	34.93	3.3	15.8
20	1 1/4-18UNEF	16	3.7	68	19.2	29.36	38.10	3.3	19.1
22	1 3/8-18UNEF	16	4.0	68	19.2	31.75	41.28	3.3	19.1
24	1 1/2-18UNEF	17	3.4	77	21.0	34.93	45.00	3.8	24.0
28	1 3/4-18UNS	18	3.4	75	21.3	39.67	50.80	3.8	24.0
32	2-18UNS	18	4.0	77	22.5	44.45	57.15	4.5	32.0
36	2 1/4-16UN	18	4.1	76	22.4	49.20	63.50	4.5	38.0

Wall Receptacle Connector

DMS3100E □□□□ - □□□□ - BSS - □



Shell Size	A	B	K±0.05	L	M ^{+0.78 0}	R±0.12	S±0.5	φ H ^{+0.25 -0.12}
10SL	5/8-24UNEF	11	2.2	56	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12	3.0	57	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11	2.9	64	14.6	23.01	30.18	3.3
16S	1-20UNEF	12	3.2	69	14.5	24.61	32.54	3.3
16	1-20UNEF	16	2.9	71	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16	4.2	72	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16	3.7	73	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16	4.0	78	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17	3.4	89	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18	3.4	95	21.3	39.67	50.80	3.8
32	2-18UNS	18	4.0	104	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18	4.1	110	22.4	49.20	63.50	4.5

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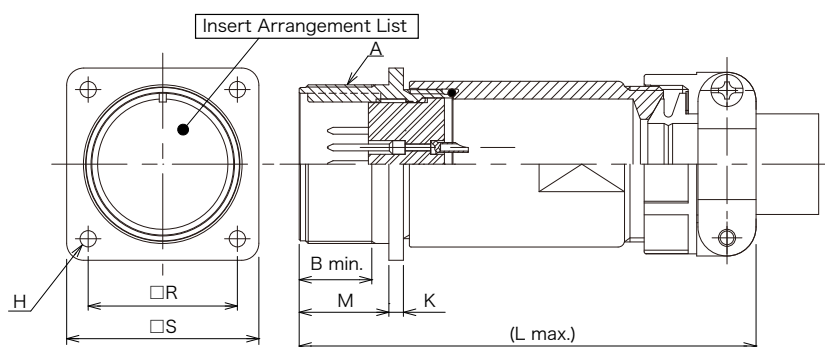
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DMS E/F/R Series

Wall Receptacle Connector

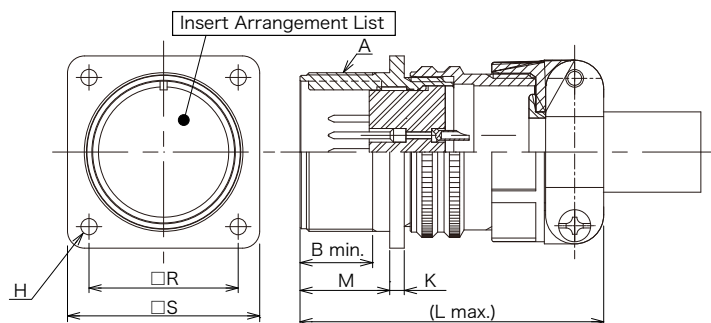
DMS3100E □□□□ - □□□□ - BSL - □



Shell Size	A	B	K±0.05	L	M ^{+0.78 0}	R±0.12	S±0.5	φ H ^{+0.25 -0.12}
10SL	5/8-24UNEF	11	2.2	76	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12	3.0	77	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11	2.9	84	14.6	23.01	30.18	3.3
16S	1-20UNEF	12	3.2	85	14.5	24.61	32.54	3.3
16	1-20UNEF	16	2.9	91	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16	4.2	112	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16	3.7	93	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16	4.0	98	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17	3.4	109	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18	3.4	115	21.3	39.67	50.80	3.8
32	2-18UNS	18	4.0	124	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18	4.1	130	22.4	49.20	63.50	4.5

Wall Receptacle Connector

DMS3100E □□□□ - □□□□ - BSN - □



Shell Size	A	B	K±0.05	L	M ^{+0.78 0}	R±0.12	S±0.5	φ H ^{+0.25 -0.12}
10SL	5/8-24UNEF	11	2.2	50	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12	3.0	56	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11	2.9	55	14.6	23.01	30.18	3.3
16S	1-20UNEF	12	3.2	58	14.5	24.61	32.54	3.3
16	1-20UNEF	16	2.9	63	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16	4.2	67	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16	3.7	70	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16	4.0	69	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17	3.4	73	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18	3.4	75	21.3	39.67	50.80	3.8
32	2-18UNS	18	4.0	76	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18	4.1	80	22.4	49.20	63.50	4.5

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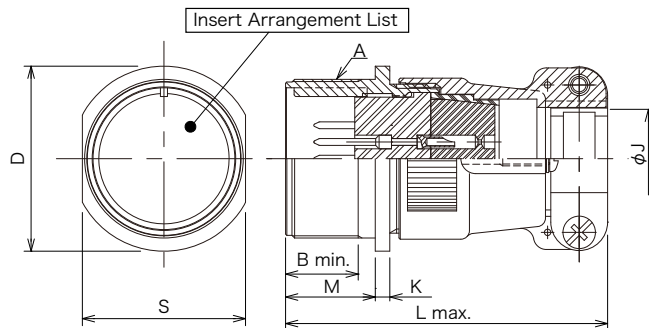
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DMS E/F/R Series

Cable Receptacle Connector

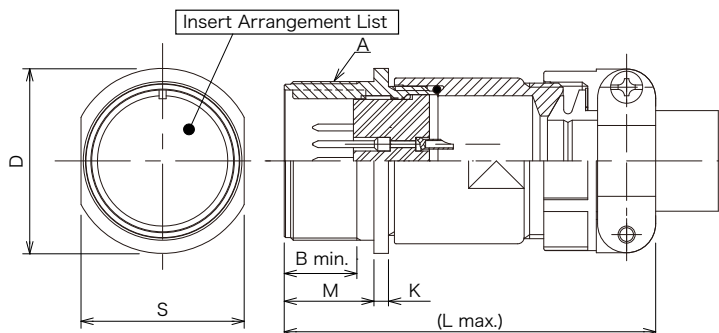
DMS3101E □□□□ - □□□□ - □



Shell Size	A	B	L	$\phi D \pm 0.5$	$S \pm 0.5$	$\phi J \pm 0.3$
10SL	5/8-24UNEF	11	51	22.0	16.5	8.0
12S	3/4-20UNEF	12	52	25.0	19.3	8.3
14S	7/8-20UNEF	11	54	28.0	22.6	11.1
16S	1-20UNEF	12	60	31.0	25.5	14.2
16	1-20UNEF	16	65	31.0	25.5	14.2
18	1 1/8-18UNEF	16	69	33.9	28.7	15.8
20	1 1/4-18UNEF	16	68	37.0	32.0	19.1
22	1 3/8-18UNEF	16	68	40.0	35.0	19.1
24	1 1/2-18UNEF	17	77	43.3	38.2	24.0
28	1 3/4-18UNS	18	75	49.5	44.7	24.0
32	2-18UNS	18	77	55.5	50.8	32.0
36	2 1/4-16UN	18	76	62.3	57.3	38.0

Cable Receptacle Connector

DMS3101E □□□□ - □□□□ - BSS - □



Shell Size	A	B	L	$\phi D \pm 0.5$	$S \pm 0.5$
10SL	5/8-24UNEF	11	56	22.0	16.5
12S	3/4-20UNEF	12	57	25.0	19.3
14S	7/8-20UNEF	11	64	28.0	22.6
16S	1-20UNEF	12	65	31.0	25.5
16	1-20UNEF	16	71	31.0	25.5
18	1 1/8-18UNEF	16	72	33.9	28.7
20	1 1/4-18UNEF	16	73	37.0	32.0
22	1 3/8-18UNEF	16	78	40.0	35.0
24	1 1/2-18UNEF	17	89	43.3	38.2
28	1 3/4-18UNS	18	95	49.5	44.7
32	2-18UNS	18	104	55.5	50.8
36	2 1/4-16UN	18	110	62.3	57.3

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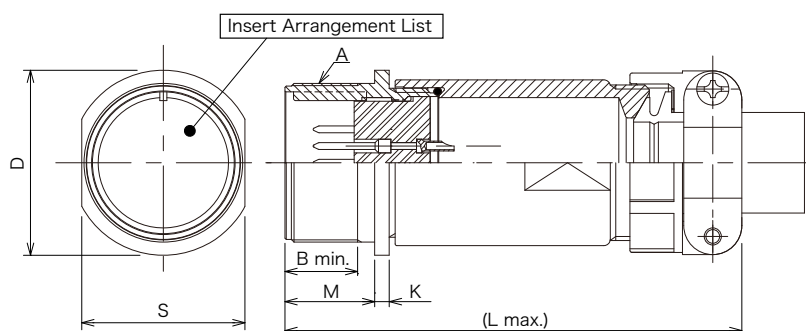
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DMS E/F/R Series

Cable Receptacle Connector

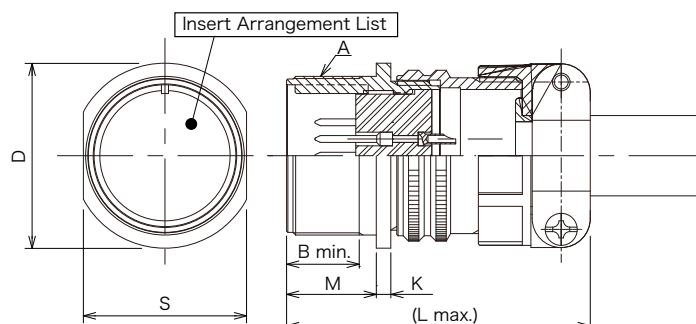
DMS3101E □□□□ - □□□□ - BSL - □



Shell Size	A	B	L	$\phi D \pm 0.5$	$S \pm 0.5$
10SL	5/8-24UNEF	11	76	22.0	16.5
12S	3/4-20UNEF	12	77	25.0	19.3
14S	7/8-20UNEF	11	84	28.0	22.6
16S	1-20UNEF	12	85	31.0	25.5
16	1-20UNEF	16	91	31.0	25.5
18	1 1/8-18UNEF	16	92	33.9	28.7
20	1 1/4-18UNEF	16	93	37.0	32.0
22	1 3/8-18UNEF	16	98	40.0	35.0
24	1 1/2-18UNEF	17	109	43.3	38.2
28	1 3/4-18UNS	18	115	49.5	44.7
32	2-18UNS	18	124	55.5	50.8
36	2 1/4-16UN	18	130	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	11	50	22.0	16.5
12S	3/4-20UNEF	12	56	25.0	19.3
14S	7/8-20UNEF	11	55	28.0	22.6
16S	1-20UNEF	12	58	31.0	25.5
16	1-20UNEF	16	63	31.0	25.5
18	1 1/8-18UNEF	16	67	33.9	28.7
20	1 1/4-18UNEF	16	70	37.0	32.0
22	1 3/8-18UNEF	16	69	40.0	35.0
24	1 1/2-18UNEF	17	73	43.3	38.2
28	1 3/4-18UNS	18	75	49.5	44.7
32	2-18UNS	18	76	55.5	50.8
36	2 1/4-16UN	18	80	62.3	57.3

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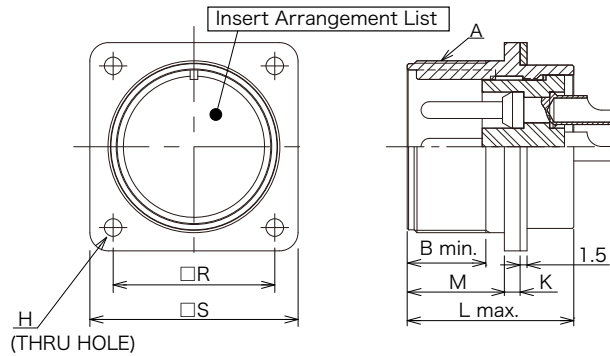
<http://www.ddknet.co.jp>

► DMS E/F/R Series

Box Receptacle Connector

DMS3102E □□□□ - □□□□ - □

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

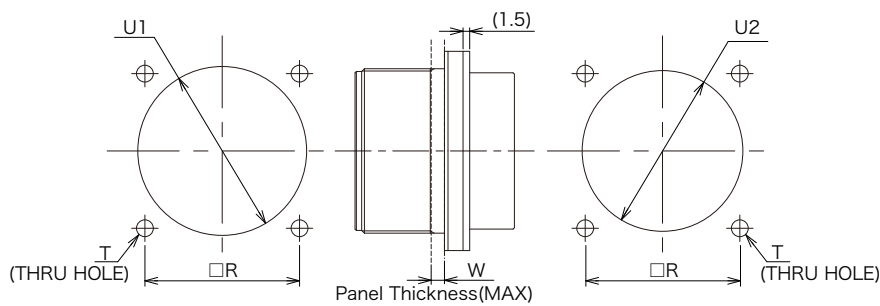


Shell Size	A	B	K±0.05	L	M ^{+0.78} ₀	R±0.12	S±0.5	φ H ^{+0.25} _{-0.12}
10SL	5/8-24UNEF	11	2.2	25.0	14.5	18.26	25.40	3.0
12S	3/4-20UNEF	12	3.0	27.0	14.6	20.62	27.80	3.3
14S	7/8-20UNEF	11	2.9	26.5	14.6	23.01	30.18	3.3
16S	1-20UNEF	12	3.2	25.6	14.5	24.61	32.54	3.3
16	1-20UNEF	16	2.9	33.3	19.5	24.61	32.54	3.3
18	1 1/8-18UNEF	16	4.2	33.4	19.2	26.94	34.93	3.3
20	1 1/4-18UNEF	16	3.7	32.1	19.2	29.36	38.10	3.3
22	1 3/8-18UNEF	16	4.0	35.0	19.2	31.75	41.28	3.3
24	1 1/2-18UNEF	17	3.4	36.0	21.0	34.93	45.00	3.8
28	1 3/4-18UNS	18	3.4	36.7	21.3	39.67	50.80	3.8
32	2-18UNS	18	4.0	39.0	22.5	44.45	57.15	4.5
36	2 1/4-16UN	18	4.1	39.5	22.4	49.20	63.50	4.5

Box Receptacle Connector

DMS3102E □□□□ - □□□□ - □

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



Shell Size	R±0.12	φ U1 ^{+0.2} ₀	φ U2 ^{+0.2} ₀	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

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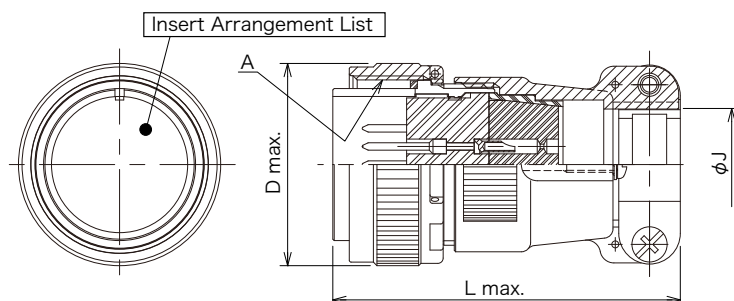
<http://www.ddknet.co.jp>

► DMS E/F/R Series

Straight Plug Connector

DMS3106E □□□□ - □□□□ - □

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

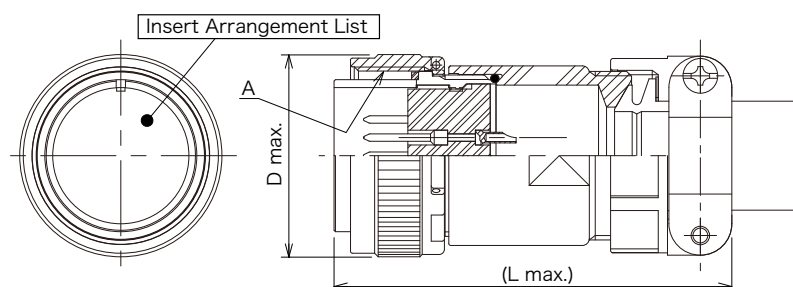


Shell Size	A	L	φ D	φ J±0.3
10SL	5/8-24UNEF	51	22.30	8.0
12S	3/4-20UNEF	51	26.25	8.3
14S	7/8-20UNEF	53	28.90	11.1
16S	1-20UNEF	59	31.90	14.2
16	1-20UNEF	63	31.90	14.2
18	1 1/8-18UNEF	67	33.80	15.8
20	1 1/4-18UNEF	67	37.55	19.1
22	1 3/8-18UNEF	68	40.85	19.1
24	1 1/2-18UNEF	76	43.70	24.0
28	1 3/4-18UNS	74	50.70	24.0
32	2-18UNS	74	57.20	32.0
36	2 1/4-16UN	72	63.40	38.0

Straight Plug Connector

DMS3106E □□□□ - □□□□ - □

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



Shell Size	A	L	φ D
10SL	5/8-24UNEF	56	22.30
12S	3/4-20UNEF	56	26.25
14S	7/8-20UNEF	62	28.90
16S	1-20UNEF	65	31.90
16	1-20UNEF	70	31.90
18	1 1/8-18UNEF	70	33.80
20	1 1/4-18UNEF	72	37.55
22	1 3/8-18UNEF	78	40.85
24	1 1/2-18UNEF	88	43.70
28	1 3/4-18UNS	93	50.70
32	2-18UNS	102	57.20
36	2 1/4-16UN	105	63.40

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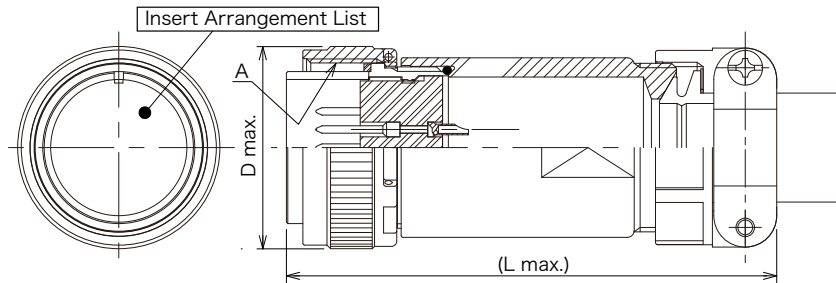
<http://www.ddknet.co.jp>

► DMS E/F/R Series

Straight Plug Connector

DMS3106E □□□□ - □□□□ - □

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



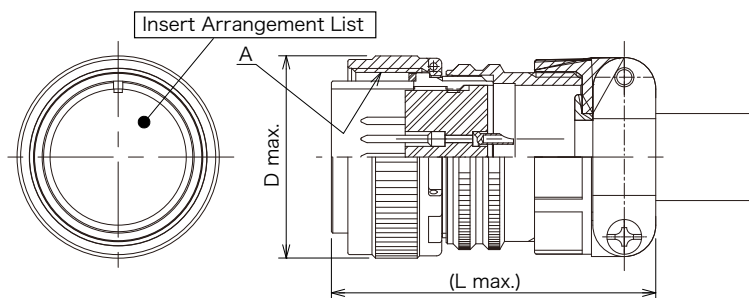
Shell Size	A	L	φ D
10SL	5/8-24UNEF	76	22.30
12S	3/4-20UNEF	76	26.25
14S	7/8-20UNEF	82	28.90
16S	1-20UNEF	85	31.90
16	1-20UNEF	90	31.90
18	1 1/8-18UNEF	90	33.80
20	1 1/4-18UNEF	92	37.55
22	1 3/8-18UNEF	98	40.85
24	1 1/2-18UNEF	108	43.70
28	1 3/4-18UNS	113	50.70
32	2-18UNS	122	57.20
36	2 1/4-16UN	125	63.40



Straight Plug Connector

DMS3106E □□□□ - □□□□ - □

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



Shell Size	A	L	φ D
10SL	5/8-24UNEF	50	22.30
12S	3/4-20UNEF	55	26.25
14S	7/8-20UNEF	63	28.90
16S	1-20UNEF	57	31.90
16	1-20UNEF	63	31.90
18	1 1/8-18UNEF	65	33.80
20	1 1/4-18UNEF	69	37.55
22	1 3/8-18UNEF	66	40.85
24	1 1/2-18UNEF	72	43.70
28	1 3/4-18UNS	73	50.70
32	2-18UNS	74	57.20
36	2 1/4-16UN	75	63.40



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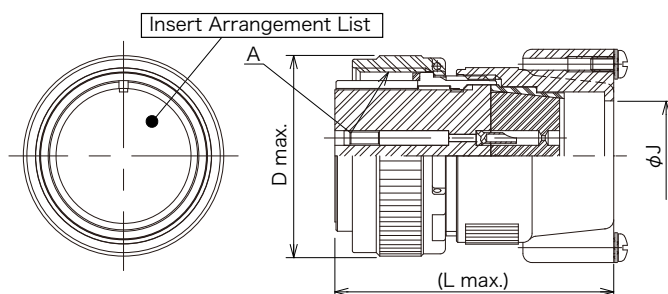
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DMS E/F/R Series

Straight Plug Connector

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

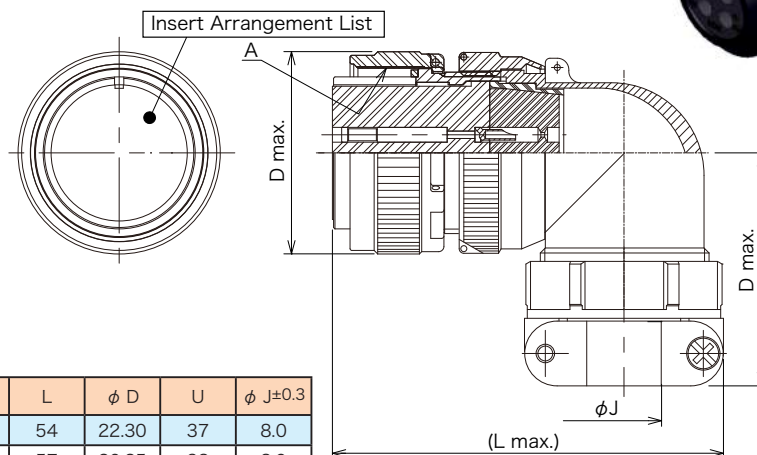


Shell Size	A	L	φ D	φ J±0.3
10SL	5/8-24UNEF	42	22.30	8.0
12S	3/4-20UNEF	43	26.25	8.3
14S	7/8-20UNEF	43	28.90	11.1
16S	1-20UNEF	47	31.90	14.2
16	1-20UNEF	51	31.90	14.2
18	1 1/8-18UNEF	55	33.80	15.8
20	1 1/4-18UNEF	55	37.55	19.1
22	1 3/8-18UNEF	56	40.85	19.1
24	1 1/2-18UNEF	61	43.70	24.0
28	1 3/4-18UNS	60	50.70	24.0
32	2-18UNS	60	57.20	32.0
36	2 1/4-16UN	58	63.40	38.0

Angle Plug Connector

DMS3108E □□□□ - □□□□ - □

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



Shell Size	A	L	φ D	U	φ J±0.3
10SL	5/8-24UNEF	54	22.30	37	8.0
12S	3/4-20UNEF	57	26.25	38	8.0
14S	7/8-20UNEF	59	28.90	40	11.0
16S	1-20UNEF	65	31.90	47	14.2
16	1-20UNEF	69	31.90	47	14.2
18	1 1/8-18UNEF	69	33.80	46	15.8
20	1 1/4-18UNEF	76	37.55	47	19.0
22	1 3/8-18UNEF	79	40.85	52	19.0
24	1 1/2-18UNEF	86	43.70	54	23.8
28	1 3/4-18UNS	85	50.70	56	23.8
32	2-18UNS	101	57.20	67	32.0
36	2 1/4-16UN	101	63.40	71	38.0

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DMS E/F/R Series

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



▶ DMS E/F/R Series

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-DTL-5015

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

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	φ 5.6max
0	DMS3057-6AK	14S	AN3420-6	φ 7.9max
0	DMS3057-8AK	16S,16	AN3420-8	φ 8.0- φ 10.5
0	DMS3057-10AK	18	AN3420-10	φ 10.5- φ 14.1
0	DMS3057-12AK	20,22	AN3420-12	φ 8.5- φ 11.0
0	DMS3057-16AK	24,28	AN3420-16	φ 6.5- φ 8.7
0	DMS3057-20AK	32	AN3420-20	φ 12.5- φ 16.0
0	DMS3057-24AK	36	AN3420-24	φ 9.5- φ 13.0

Table 2

Number	Cable Clamp P/N	Shell Size	Bushing Used	Applicable Cable Diameter
1	CE3057-4A-1 (Dxxx)	10SL,12S	CE3420-4-1	φ 3.6- φ 5.6
1	CE3057-6A-1 (Dxxx)	14S	CE3420-6-1	φ 7.0- φ 9.0
1	CE3057-8A-1 (Dxxx)	16S,16	CE3420-8-1	φ 10.0- φ 12.0
2	CE3057-8A-2 (Dxxx)		CE3420-8-2	φ 8.5- φ 10.5
1	CE3057-10A-1 (Dxxx)	18	CE3420-10-1	φ 10.5- φ 14.1
2	CE3057-10A-2 (Dxxx)		CE3420-10-2	φ 8.5- φ 11.0
3	CE3057-10A-3 (Dxxx)		CE3420-10-3	φ 6.5- φ 8.7
1	CE3057-12A-1 (Dxxx)	20,22	CE3420-12-1	φ 12.5- φ 16.0
2	CE3057-12A-2 (Dxxx)		CE3420-12-2	φ 9.5- φ 13.0
3	CE3057-12A-3 (Dxxx)		CE3420-12-3	φ 6.8- φ 10.0
7	CE3057-12A-7 (Dxxx)		CE3420-12-7	φ 14.5- φ 17.0
1	CE3057-16A-1 (Dxxx)	24,28	CE3420-16-1	φ 15.0- φ 19.1
2	CE3057-16A-2 (Dxxx)		CE3420-16-2	φ 13.0- φ 15.5
4	CE3057-16A-4 (Dxxx)		J-06814 CZY005-GB-3	φ 19.1- φ 21.5
6	CE3057-16A-6 (Dxxx)		CE3420-16-6	φ 18.5- φ 20.0
7	CE3057-16A-7 (Dxxx)		CE3420-16-7	φ 11.5- φ 13.5
8	CE3057-16A-8 (Dxxx)		J-07369 CZY005-GB-6(MO)	φ 10.5- φ 12.5
1	CE3057-20A-1 (Dxxx)	32	CE3420-20-1	φ 22.0- φ 23.8
2	CE3057-20A-2 (Dxxx)		CE3420-20-2	φ 24.0- φ 26.6
3	CE3057-20A-3 (Dxxx)		CZY005-GB-5	φ 21.0- φ 22.5
1	CE3057-24A-1 (Dxxx)	36	CE3420-24-1	φ 30.0- φ 32.5
2	CE3057-24A-2 (Dxxx)		CE3420-24-2	φ 27.5- φ 29.5
3	CE3057-24A-3 (Dxxx)		AN3420-24(D246)	φ 29.0- φ 31.0

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 DMS E/F/R Series

Crimp Tool for DDK DMS-E/F/R Crimp Contacts

			TOOL						
		Applicable Wire	Crimp Tool Body		LOCATOR	GAGE	Semi-automatic	Note	
Contact P/N	Contact Size	AWG	MILITARY P/N	DMC P/N	DDK P/N		DMC P/N		
DMSE-#12P □ -C1	#12	4mm ²	M22520/1-01	AF8	357J-53229T (with stopper)	M22520/3-1 G125	WA27F		
DMSE-#12S □ -C1									
DMSE-#12P □ -C2	#12	AWG14-12	M22520/1-01	AF8					
DMSE-#12S □ -C2									
DMSE-#12P □ -C3	#12	AWG18-16	M22520/1-01	AF8					
DMSE-#12S □ -C3									
DMSE-S#16P □ -C1	#16	AWG18-16	M22520/1-01	AF8	357J-53230T (with stopper)				
DMSE-#16P □ -C1									
DMSE-L#16P □ -C1									
DMSE-SS#16S □ -C1									
DMSE-S#16S □ -C1									
DMSE-#16S □ -C1									
DMSE-L#16S □ -C1									
DMSE-S#16P □ -C2	#16	AWG18-22	M22520/1-01	AF8			357J-53230T (with stopper)		WA27F
DMSE-#16P □ -C2									
DMSE-L#16P □ -C2									
DMSE-SS#16S □ -C2									
DMSE-S#16S □ -C2									
DMSE-#16S □ -C2									
DMSE-L#16S □ -C2									
DMSE-S#16P □ -C3	#16	AWG26-22	M22520/1-01	AF8	357J-53230T (with stopper)				
DMSE-#16P □ -C3									
DMSE-L#16P □ -C3									
DMSE-SS#16S □ -C3									
DMSE-S#16S □ -C3									
DMSE-#16S □ -C3									
DMSE-L#16S □ -C3									

Note : DMC stands for Daniels Manufacturing Corporation.

 DMS E/F/R Series

Crimp Tool for DDK DMS-E/F/R Crimp Contacts

Contact P/N	Contact Size	Applicable Wire AWG	DMC P/N	DMC DIE ASSEMBLY P/N	LOKATOR DDK P/N
DMSE-#0P □ -C1	#0	AWG 0 50mm ² AWG 2 (35mm ²) AWG 4 (25mm ²) 16mm ²	WA23	WA23-5	357J-53244T
DMSE-#0P □ -C2					
DMSE-#0P □ -C3					
DMSE-#0P □ -C4					
DMSE-#0P □ -C5					
DMSE-#0S □ -C1					
DMSE-#0S □ -C2					
DMSE-#0S □ -C3					
DMSE-#0S □ -C4					
DMSE-#0S □ -C5					
DMSE-L#0P □ -C1					
DMSE-L#0P □ -C2					
DMSE-L#0P □ -C3					
DMSE-L#0P □ -C4					
DMSE-L#0P □ -C5					
DMSE-L#0S □ -C1					
DMSE-L#0S □ -C2					
DMSE-L#0S □ -C3					
DMSE-L#0S □ -C4					
DMSE-L#0S □ -C5					
DMSE-#4P □ -C1	#4	AWG 4 16mm ² AWG 6 10mm ²		WA23-4	357J-53246T
DMSE-#4P □ -C2					
DMSE-#4P □ -C3					
DMSE-#4P □ -C4					
DMSE-#4S □ -C1					
DMSE-#4S □ -C2					
DMSE-#4S □ -C3					
DMSE-#4S □ -C4					
DMSE-L#4P □ -C1					
DMSE-L#4P □ -C2					
DMSE-L#4P □ -C3					
DMSE-L#4P □ -C4					
DMSE-L#4S □ -C1					
DMSE-L#4S □ -C2					
DMSE-L#4S □ -C3					
DMSE-L#4S □ -C4					
DMSE-#8P □ -C1	#8	10mm ² AWG 8 AWG 10 AWG 14/12		WA23-2	357J-53248T
DMSE-#8P □ -C2					
DMSE-#8P □ -C3					
DMSE-#8P □ -C4					
DMSE-#8S □ -C1					
DMSE-#8S □ -C2					
DMSE-#8S □ -C3					
DMSE-#8S □ -C4					
DMSE-L#8P □ -C1					
DMSE-L#8P □ -C2					
DMSE-L#8P □ -C3					
DMSE-L#8P □ -C4					
DMSE-L#8S □ -C1					
DMSE-L#8S □ -C2					
DMSE-L#8S □ -C3					
DMSE-L#8S □ -C4					

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