

DMS E/F/R Series

MIL-C-5015 Compatible Environment Resistant Type



DDK's DMS 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 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.

FEATURE

- 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

MATERIAL/FINISH

Contactr	Copper alloy / Silver plating
Insulator	Ethylene propylene rubber
Shell	Aluminum alloy / Zinc plating, Black chromate finish

Specification

Wire size

Contact size	Wire size
#16	AWG#16-#22
#12	AWG#12-#14

Contact size

Contact size	Max. value per contact
#16	13A
#12	23A

Service rating

Service rating	Operating voltage	
	DC	AC(rms)
INST	250	200
A	700	500
D	1250	900
E	1750	1250
B	2450	1750
C	4200	3000

Maximum total current connectors is same as the allowable current for wire bundles as specified in MIL-W-5088.

Service rating

Insulation resistance	5,000M ohm min.(at 25C degree)
Temperature range	-55C degree to 125C degree
Thermal shock	MIL-STD-202 Method 107
	Temperature range of -55C degree to 125C degree
Humidity	Relative humidity: 95% +/-3% Temperature: 71C degree +/-2C degree 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: 11 +/-1 micro sec. Test current: 100mA
Salt spray	MIL-STD-1344 Method 1001 Salt solution: 5% Duration: 48 hours
Durability	500 cycle mating/ unmating operatings

DMS E/F/R Series

Unit : mm

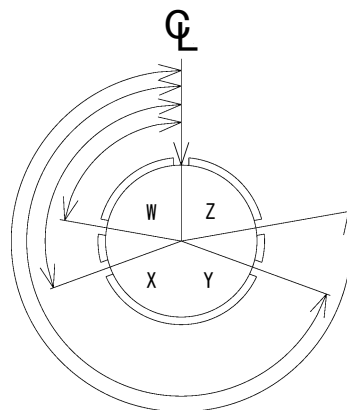
INSERT ARRANGEMENTS-Front View of Pin Insert

(Insert Arrangement / Number of Contact – Contact Size / Service Rating)

2 Contact	3 Contacts	4 Contact		6 Contacts
10SL-4	10SL-3	14S-2	18-10	14S-6
2-#16	3-#16	4-#16	4-#12	6-#16
A	A	INST.	A	INST.
7 Contact		10 Contacts	11 Contacts	14 Contacts
16S-1	20-15	18-1	20-33	20-27
7-#16	7-#12	10-#16	11-#16	14-#16
A	A	A(B,C,F,G) INST.(Others)	A	A
17 Contacts	19 Contacts	24 Contacts		
20-29	22-14	24-28		
17-#16	19-#16	24-#16		
A	A	INST.		

ALTERNATE INSERT POSITIONS

Insert No.	Alternate Key Positions			
	W	X	Y	Z
10SL				
10SL-3	-	-	-	-
10SL-4	-	-	-	-
14S				
14S-2	-	120	240	-
14S-6	-	-	-	-
16S				
16S-1	80	-	-	280
18				
18-1	70	145	215	290
18-10	-	120	240	-
20				
20-15	80	-	-	280
20-27	35	110	250	325
20-29	80	-	-	280
20-33	-	-	-	-
22				
22-14	80	110	250	280
24				
24-28	80	110	250	280



FRONT View of Pin Insert

INSERT SPECIFICATIONS

Insert No.	# of Pins	Contact Size	
		#12	#16
10SL			
10SL-3	3		3
10SL-4	2		2
14S			
14S-2	4		4
14S-6	6	-	6
16S			
16S-1	7		7
18			
18-1	10		10
18-10	4	4	
20			
20-15	7	7	
20-27	14		14
20-29	17		17
20-33	11		11
22			
22-14	19		19
24			
24-28	24		24

DMS E/F/R Series

Unit : mm

DMS3106E20-29SW

SHELL STYLE

3100E : Wall Receptacle
 3101E : Cable Receptacle
 3102E/R : Box Receptacle
 3106E/F : Straight Plug
 3106R : Straight Plug

ALTERNATE INSERT POSITION

Omit: Standard Key Position
 W,X,Y or Z : Alternate Key Position

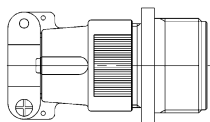
CONTACT STYLE

P:Pin contact
 S:Socket Contact

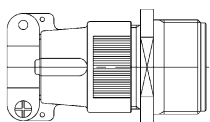
**SHELL SIZE/
 INSERT ARRANGEMENT**
 See page 7

Receptacle Connector

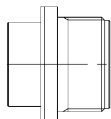
DMS3100E



DMS3101E

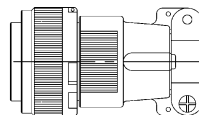


DMS3102ES

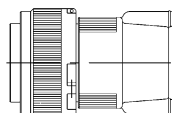


Plug Connector

DMS3106E/F

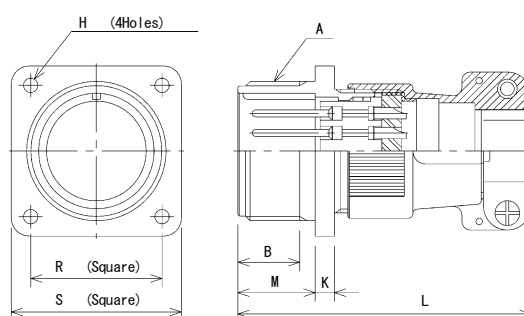


DMS3106R



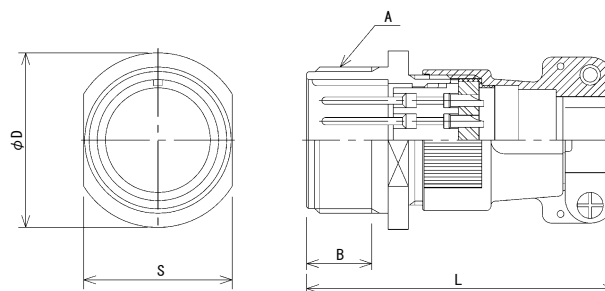
Wall Mounting Receptacle

Shell Size	A	B	K	L	M	R	S	H
10SL	5/8-24UNEF	9.53	1.58-3.96	57.20	14.27	18.26	25.40	3.05
14S	7/8-20UNEF	9.53	1.58-3.96	57.20	14.27	23.00	30.18	3.05
16S	1-20UNEF	9.53	1.58-3.96	57.20	14.27	24.61	32.54	3.05
18	1 1/8-18UNEF	15.90	2.39-5.15	68.30	19.05	26.97	34.93	3.05
20	1 1/4-18UNEF	15.90	2.39-5.15	69.90	19.05	29.36	38.10	3.05
22	1 3/8-18UNEF	15.90	2.39-5.15	69.90	19.05	31.75	41.28	3.05
24	1 1/2-18UNEF	15.90	2.39-5.15	75.40	20.62	34.93	44.45	3.70



Cable Connecting Receptacle

Shell Size	A	B	L	D	S
10SL	5/8-24UNEF	9.53	57.20	27.00	15.70
14S	7/8-20UNEF	9.53	57.20	29.36	22.10
16S	1-20UNEF	9.53	57.20	32.50	25.30
18	1 1/8-18UNEF	15.90	68.30	34.10	28.40
20	1 1/4-18UNEF	15.90	69.90	38.16	31.60
22	1 3/8-18UNEF	15.90	69.90	41.20	34.80
24	1 1/2-18UNEF	15.90	75.40	44.45	38.00



DMS E/F/R Series

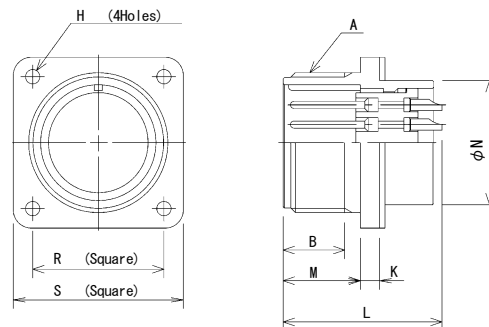
Unit : mm

■ Box Mounting Receptacle

DMS3 102E (Less Gasket)

DMS3 102R (With Gasket)

Shell Size	A	B	K	L	M	N	R	S	H
10SL	5/8-24UNEF	9.53	2.00-3.96	30.20	14.27	19.86	18.26	25.40	3.05
14S	7/8-20UNEF	9.53	2.00-3.96	30.20	14.27	23.00	23.00	30.18	3.05
16S	1-20UNEF	9.53	2.00-3.96	30.20	14.27	26.20	24.61	32.54	3.05
18	1 1/8-18UNEF	15.90	2.40-5.10	49.20	19.05	29.36	26.97	34.93	3.05
20	1 1/4-18UNEF	15.90	2.40-5.10	49.20	19.05	32.56	29.36	38.10	3.05
22	1 3/8-18UNEF	15.90	2.40-5.10	49.20	19.05	35.70	31.75	41.28	3.05
24	1 1/2-18UNEF	15.90	2.40-5.10	49.20	20.62	38.90	34.93	44.45	3.70

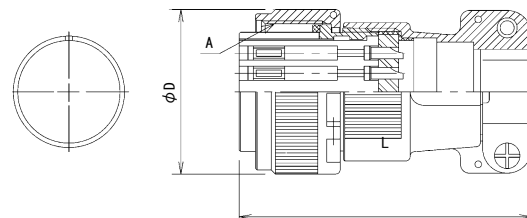


■ Straight Plug

DMS3 106E (Less Gasket)

DMS3 106F (With Gasket)

Shell Size	A	D	L
10SL	5/8-24UNEF	24.60	57.20
14S	7/8-20UNEF	24.60	57.20
16S	1-20UNEF	31.70	57.20
18	1 1/8-18UNEF	34.10	68.30
20	1 1/4-18UNEF	37.30	69.90
22	1 3/8-18UNEF	40.40	69.90
24	1 1/2-18UNEF	43.60	75.40



■ Straight Plug

Shell Size	A	D	L
10SL	5/8-24UNEF	24.60	46.70
14S	7/8-20UNEF	24.60	46.70
16S	1-20UNEF	31.70	46.70
18	1 1/8-18UNEF	34.10	57.94
20	1 1/4-18UNEF	37.30	57.94
22	1 3/8-18UNEF	40.40	57.94
24	1 1/2-18UNEF	43.60	57.94

