

# Waterproof Circular Connectors

## CE02-2A Series



Conforming  
Standard  
MIL-DTL-5015

Waterproof  
IP67

Lock Type  
Threaded  
Coupling

### ◆ OUTLINE

CE02-2A Series is intermateable with D/MS series (MIL-DTL-5015 compatible). In order to correspond to various environments where industrial equipment is set up, CE02-2A series connector withstands moisture, oil and vibration by using synthetic rubber at the front insert.

This connector is ideal for use under the external condition such as industrial equipment which needs to withstand moisture, oil and dust.



### ◆ FEATURES

- CE02-2A series is interchangeable with D/MS series receptacle because the mounting pattern is same.
- The insert is a three-piece design. The contact will not be fallen out and subsided when used under the normal operating condition.
- The insert which is made with synthetic rubber can be used at a temperature up to 125°C .
- When CE02-2A is mating with plug connector of CE02-6A, D/MS(D190) or CE05 series, it will conform to IP67

### ◆ SPECIFICATIONS

Contact Size	# 16	# 12	# 8
Rated Current	13A / Contact	23A / Contact	46A / Contact
Rated Voltage	250V AC(r.m.s.)	350V AC(r.m.s.)	
	350V DC	500V DC	
Dielectric Withstanding Voltage	1000V AC(r.m.s.) at 1 minute.	1500V AC(r.m.s.) at 1 minute.	
Insulation Resistance	1,000M Ω min. at 500V DC		
Waterproof Rating	IP67		
Operating Temperature	- 40°C to + 125°C		

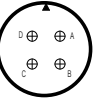
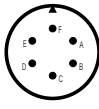
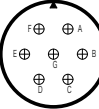
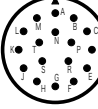
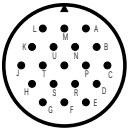
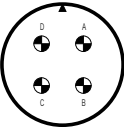
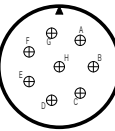
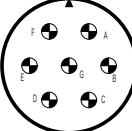
### ◆ MATERIAL / FINISH



Item	Material / Finish
Shell	Aluminum Alloy / Black Trivalent Chromium Treatment
Front Insert	Synthetic Rubber (Silicone)
Middle Insert	PPS Resin
Rear Insert	PPS Resin
Contact	Copper Alloy / Silver Plating
Flange Gasket	Synthetic Rubber (Silicone)
Gasket	Synthetic Rubber (Silicone)

## ▶ Insert Arrangements

MIL-DTL-5015 Compatible, Pin insert Only

Number of Contact	4	6	7	17
Insert No.	18-10	18-12	20-15	20-29
Insert Arrangement				
Contact Size	# 12	# 16	# 12	# 16
Number of Contact	19	4	8	7
Insert No.	22-14	22-22	22-23	24-10
Insert Arrangement				
Contact Size	# 16	# 8	# 12	# 8

Note : Each of the inserts in the CE02 series is viewed from its coupling side.

All keys are set at their standard positions.

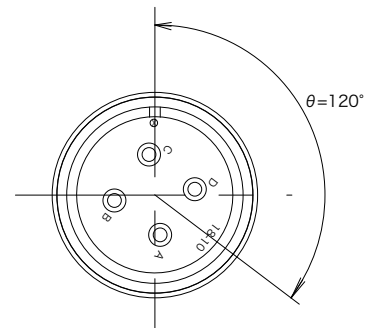
Contact Size Symbol



## ▶ Alternate Insert Positions

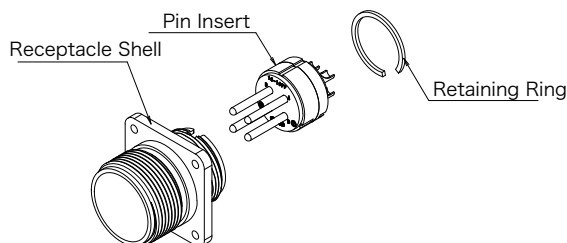
Insert No.	Contact Size/ Number of Contact	Alternate Insert Key Positions			
		W	X	Y	Z
18-10P	# 12 / 4		120°	240°	
18-12P	# 16 / 6	80°			280°
20-15P	# 12 / 7	80°			280°
20-29P	# 16 / 17	80°			280°
22-14P	# 19 / 19	80°	110°	250°	280°
22-22P	# 8 / 4		110°	250°	
22-23P	# 12 / 8	35°			
24-10P	# 8 / 7	80°			280°

Alternate insert key positions, W, X, Y and Z prevent cross-plugging problems in applications requiring the use of more than one connector of the same size and arrangement.



Front View of Pin Insert  
(For Model CE02-2A18-10PX-D)

### Diagram

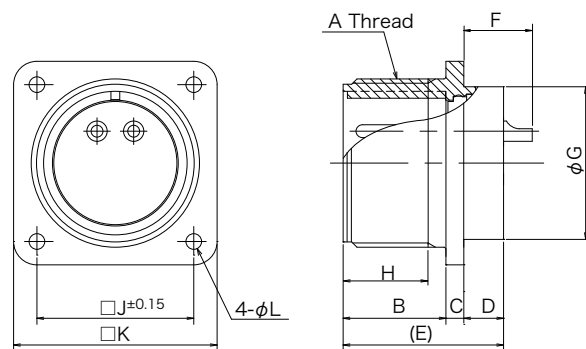


# ▶ Box Receptacle Connector

## CE02-2A20-29PWS-D

① ② ③ ④ ⑤ ⑥ ⑦

① Shell Style	2A : Box Receptacle
② Shell Size	18, 20, 22 and 24
③ Insert Number	Refer to page 2.
④ Contact Style	P : Pin Contact
⑤ Alternate Insert Position	Omit : Standard Position W, X, Y, Z : Alternate Insert Position
⑥ Gasket	Omit : Without Gasket S : With Gasket
⑦ Finish	D : Black Trivalent Chromium Treatment



Part Number	A	B	C	D	(E)	F max.	G±0.5	H min.	J±0.15	K	L <sup>+0.25 -0.12</sup>
CE02-2A18-10P-D	1 1/8-18UNEF-2A	19.2	3.35	7.44	30.03	13.8	25.4	15.88	26.97	34.9	3.05
CE02-2A18-12P-D	1 1/8-18UNEF-2A	19.2	3.35	7.44	30.03	11.5	25.5	15.88	26.97	34.9	3.05
CE02-2A20-15P-D	1 1/4-18UNEF-2A	19.2	3.35	7.44	30.03	13.8	28.6	15.88	29.36	38.1	3.05
CE02-2A20-29P-D	1 1/4-18UNEF-2A	19.2	3.35	7.44	30.03	11.5	28.6	15.88	29.36	38.1	3.05
CE02-2A22-14P-D	1 3/8-18UNEF-2A	19.2	3.35	7.44	30.03	11.5	31.8	15.88	31.75	41.3	3.05
CE02-2A22-22P-D	1 3/8-18UNEF-2A	19.2	3.35	7.44	30.03	16.9	31.8	15.88	31.75	41.3	3.05
CE02-2A22-23P-D	1 3/8-18UNEF-2A	19.2	3.35	7.44	30.03	13.8	31.8	15.88	31.75	41.3	3.05
CE02-2A24-10P-D	1 1/2-18UNEF-2A	20.8	3.35	7.44	31.59	15.3	34.9	15.88	34.93	44.4	3.73