

Moistureproof Plug Type Intermateable with CE02-2A and D/MS Series

B
D/MS(D190)



D/MS (D190) series is intermateable with CE02-2A, D/MS and MIL-C-5015 connectors. These connectors meet the performance criteria of most factory automation applications as they withstand exposure to moisture, oil and vibration.

MATERIAL/FINISH

| | |
|----------------|--|
| Shell | Aluminum alloy/Zinc plating, Trivalent Chromate finish (Black) |
| Insulator | Diallyl phthalate resin/Blue |
| Contact | Copper alloy/Silver plating |
| Coupling Ring | Aluminum alloy/Zinc plating, Trivalent Chromate finish (Black) |
| Retaining Ring | Phosphor bronze/Zinc plating, Nickel plating |
| Gasket | Nitrile rubber/Black |

Specification

Wire Size

| Contact Size | Wire Size |
|--------------|------------|
| #16 | AWG#16—#22 |
| #12 | AWG#12—#14 |
| #8 | AWG#8—#10 |
| #4 | AWG#4—#6 |
| #0 | AWG#0—#2 |

Contact Current Rating

| Contact Size | Test current (Amperes) |
|--------------|------------------------|
| #16 | 13 |
| #12 | 23 |
| #8 | 46 |
| #4 | 80 |
| #0 | 150 |

Service Rating

| Service Rating | Operating Voltage (V) | |
|----------------|-----------------------|------|
| | DC | AC |
| INST | 250 | 200 |
| A | 700 | 500 |
| D | 1250 | 900 |
| E | 1750 | 1250 |
| B | 2450 | 1750 |
| C | 4200 | 3000 |

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

D/MS (D190) Series

Unit : mm

D/MS3106A20-29SW(D190)

B

D/MS(D190)

SHELL STYLE

3106A : Straight Plug

INSERT ARRANGEMENT

See page 3 to 5

DEVIATION

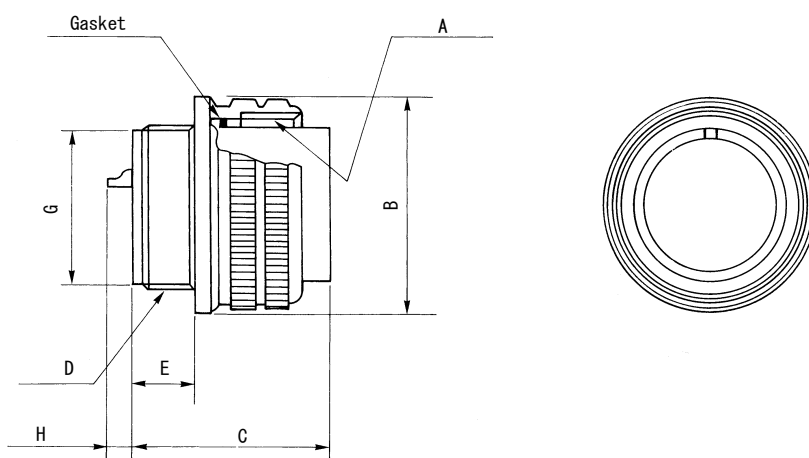
(D190): Conduit type

ALTERNATE INSERT POSITION

Omit : Standard position
W,X,Y,Z : Alternate position

CONTACT STYLE

S : Socket



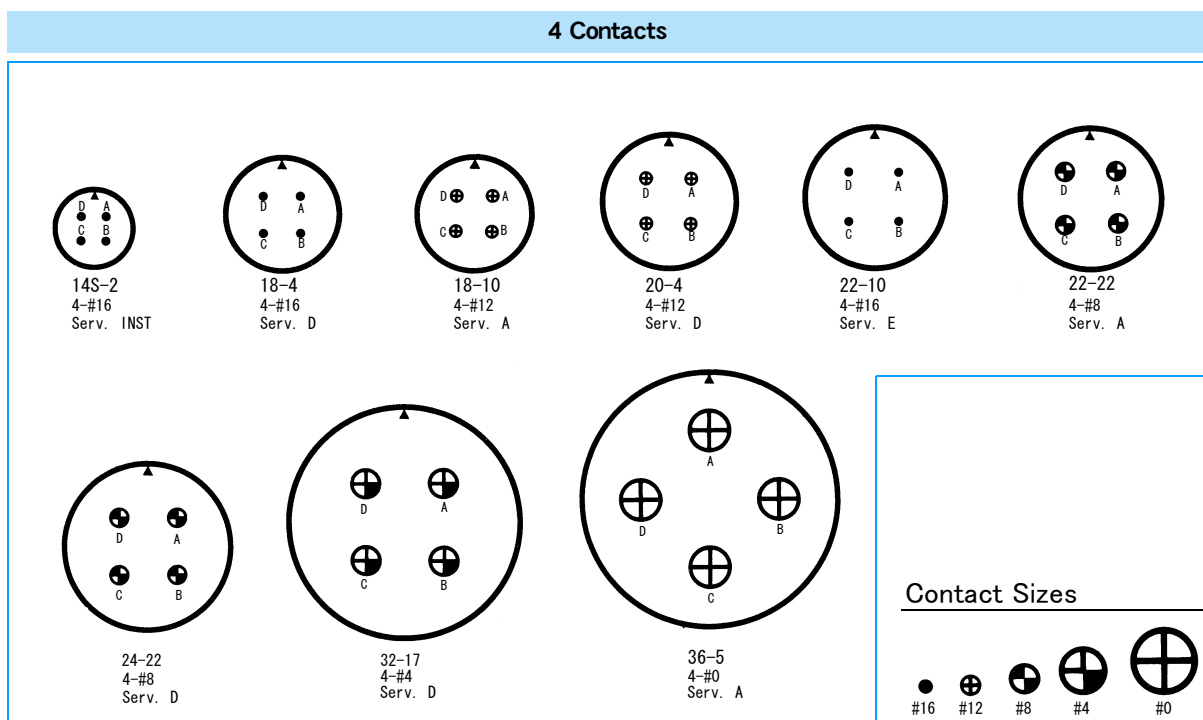
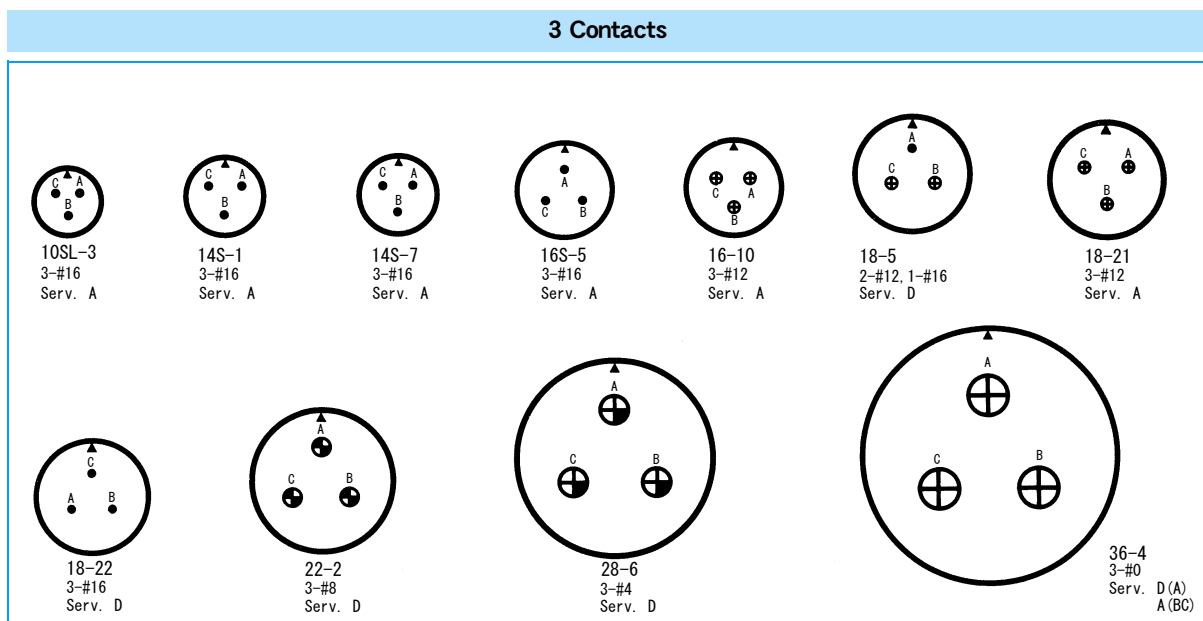
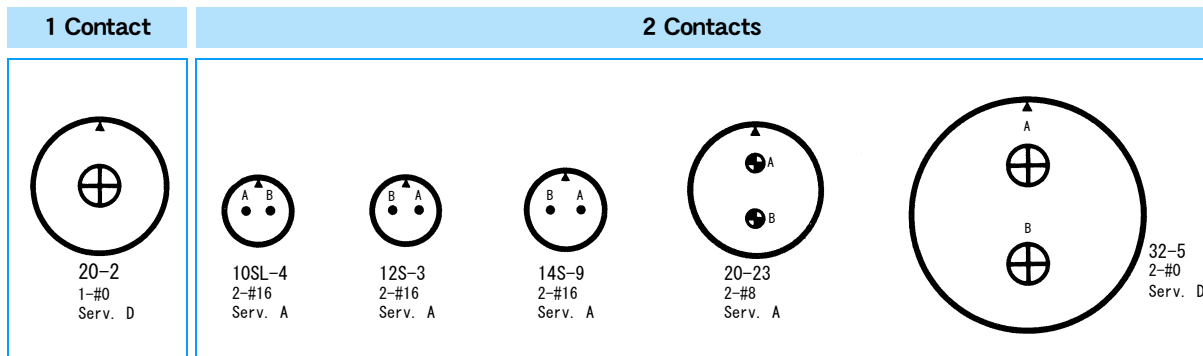
| Shell Size | Coupling Threads A | B | C | Rear Threads D | E | G |
|------------|-----------------------|-------|-------|-------------------|-------|-------|
| 10SL | 5/8-24UNEF | 22.22 | 23.30 | 9/16-24UNEF-2A | 7.50 | 12.50 |
| 12S | 3/4-20UNEF | 25.40 | 24.43 | 1 1/16-24UNEF-2A | 8.43 | 15.60 |
| 14S | 7/8-20UNEF | 28.57 | 24.34 | 3/4-20UNEF-2A | 8.46 | 17.00 |
| 16S | 1-20UNEF | 31.75 | 24.38 | 7/8-20UNEF-2A | 8.38 | 20.05 |
| 16 | 1-20UNEF | 31.75 | 33.72 | 7/8-20UNEF-2A | 11.76 | 20.26 |
| 18 | 1 1/8-18UNEF | 34.13 | 33.72 | 1-20UNEF-2A | 11.74 | 23.50 |
| 20 | 1 1/4-18UNEF | 37.28 | 34.11 | 1 1/8-18UNEF-2A | 12.16 | 26.80 |
| 22 | 1 3/8-18UNEF | 40.48 | 34.11 | 1 1/4-18UNEF-2A | 12.15 | 29.90 |
| 24 | 1 1/2-18UNEF | 43.63 | 36.58 | 1 3/8-18UNEF-2A | 13.42 | 32.90 |
| 28 | 1 3/4-18UNS | 50.00 | 37.03 | 1 5/8-18UNEF-2A | 13.07 | 38.98 |
| 32 | 2-18UNS | 56.33 | 36.95 | 1 7/8-16UN-2A | 13.14 | 45.30 |
| 36 | 2 1/4-16UN | 62.68 | 37.44 | 2 1/8-16UN-2A | 13.60 | 51.60 |

| | Contact Size | | | | |
|---|--------------|------|-------|-------|-------|
| | #16 | #12 | #8 | #4 | #0 |
| H | 8max | 8max | 16max | 13max | 13max |

D/MS (D190) Series

Insert Arrangements (Front View of Pin Insert)

B
D/MS(D190)

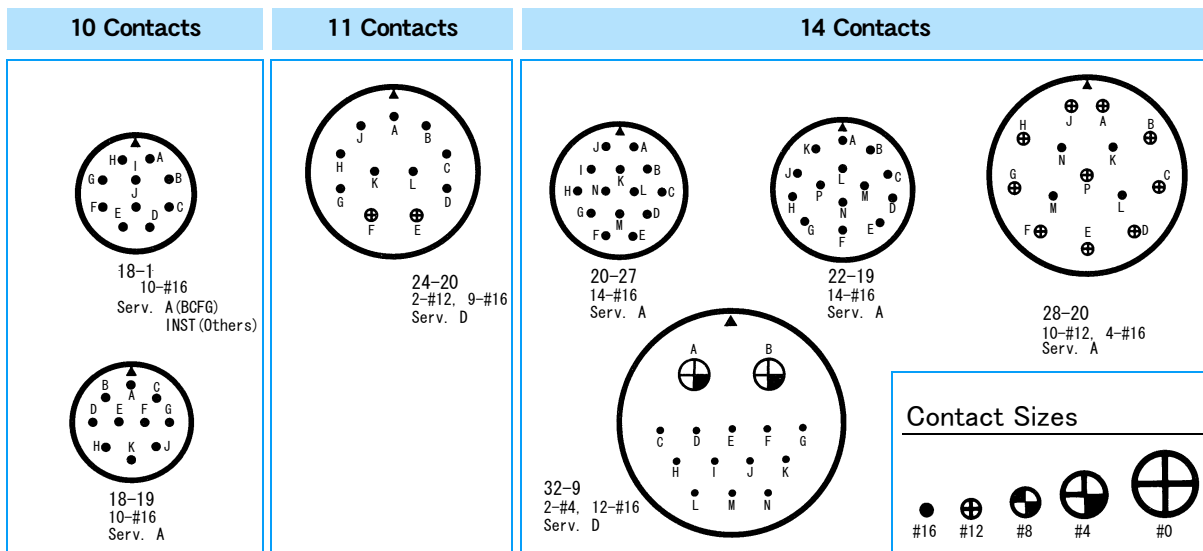
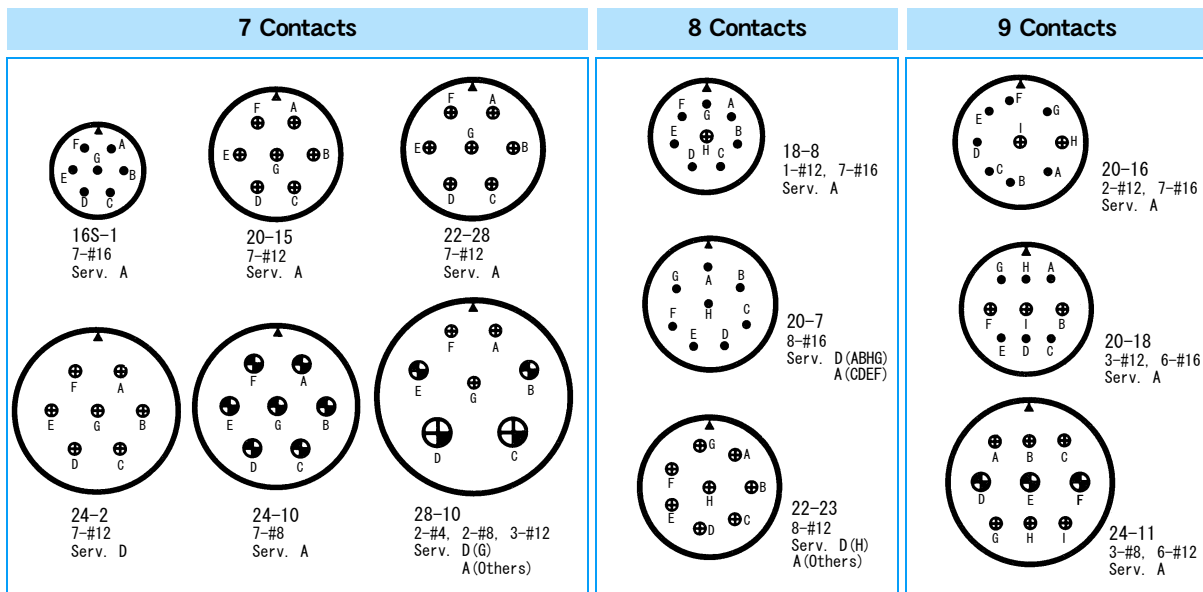
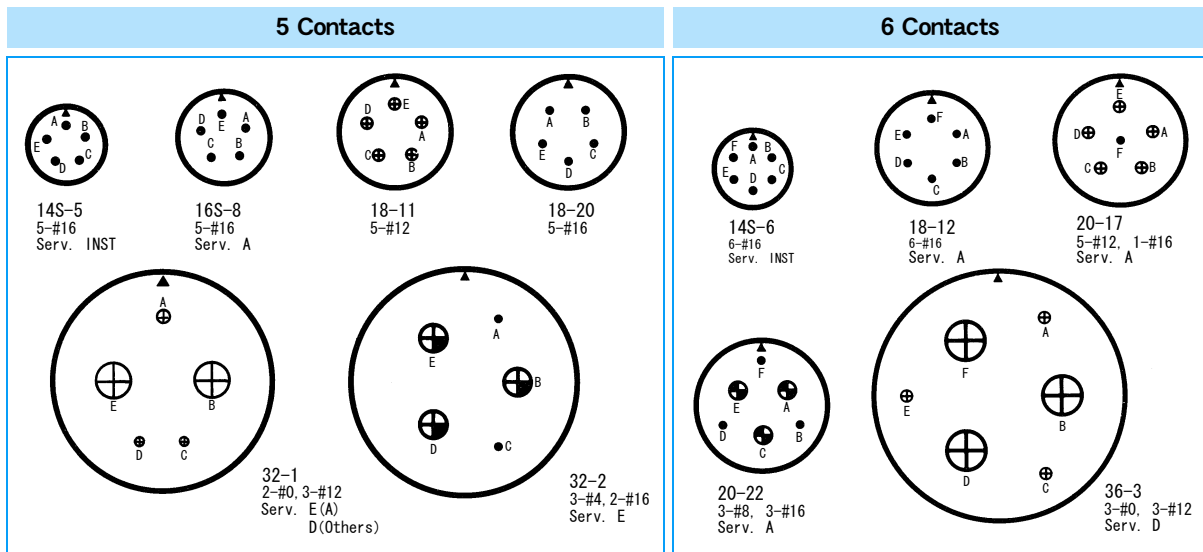


D/MS (D190) Series

Insert Arrangements (Front View of Pin Insert)

B

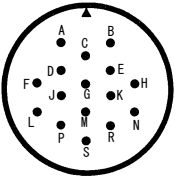
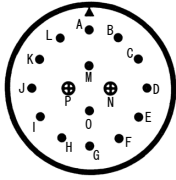
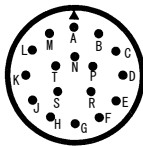
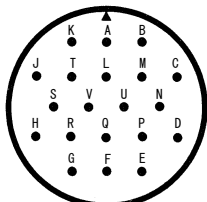
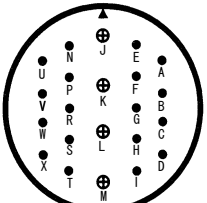
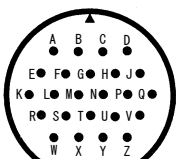
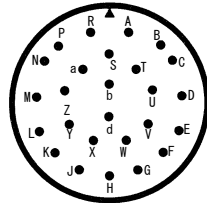
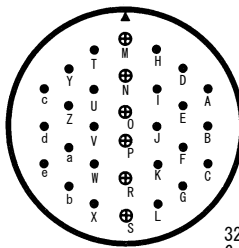
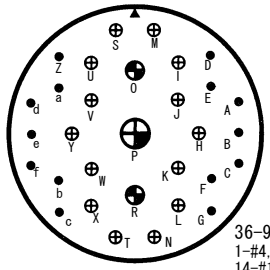
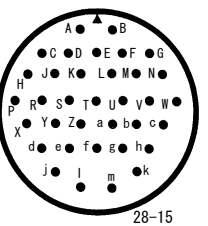
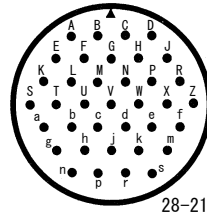
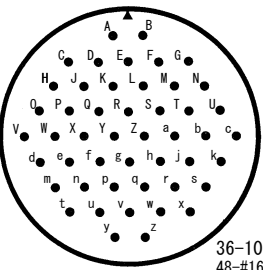
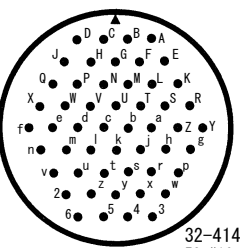
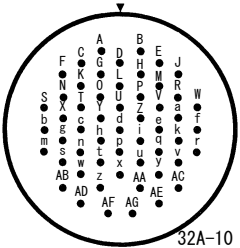
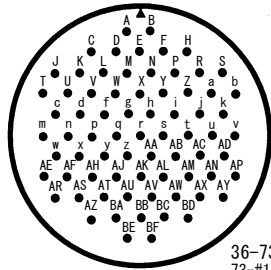
D/MS(D190)



D/MS (D190) Series

Insert Arrangements (Front View of Pin Insert)

B
D/MS(D190)

| 16 Contacts | 17 Contacts | 19 Contacts | 20 Contacts |
|---|---|---|--|
|  <p>24-5 16-#16 Serv. A</p> |  <p>24-7 2-#12, 14-#16 Serv. A</p> |  <p>20-29 17-#16 Serv. A</p> |  <p>28-16 20-#16 Serv. A</p> |
| 22 Contacts | 24 Contacts | 26 Contacts | 30 Contacts |
|  <p>28-11 4-#12, 18-#16 Serv. A</p> |  <p>24-28 24-#16 Serv. A</p> |  <p>28-12 26-#16 Serv. A</p> |  <p>32-8 6-#12, 24-#16 Serv. A</p> |
| 31 Contacts | 35 Contacts | 37 Contacts | |
|  <p>36-9 1-#4, 2-#8 14-#12, 14-#16 Serv. A</p> |  <p>28-15 35-#16 Serv. A</p> |  <p>28-7 7-#12, 28-#16 Serv. INST (ABh,j) A (others)</p> <p>28-21 37-#12 Serv. A</p> | |
| 48 Contacts | 52 Contacts | 54 Contacts | 73 Contacts |
|  <p>36-10 48-#16 Serv. A</p> |  <p>32-414 52-#16 Serv. A</p> |  <p>32A-10 54-#16 Serv. A</p> |  <p>36-73 73-#16 Serv. A</p> |

Contact Sizes

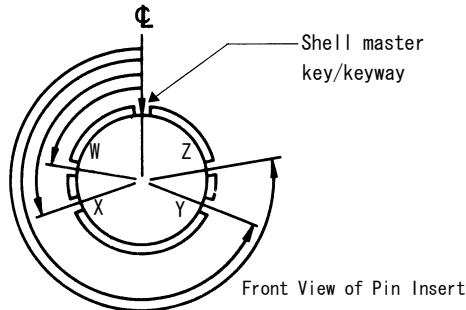


D/MS (D190) Series

Alternate Insert Positions

B

D/MS(D190)



| No. of. Contacts | Insert No. | W | X | Y | Z |
|------------------|------------|------|------|------|------|
| 1 | 20-2 | — | — | — | — |
| | 10SL-4 | — | — | — | — |
| 2 | 12S-3 | 70° | 145° | 215° | 290° |
| | 14S-9 | 70° | 145° | 215° | 290° |
| | 20-23 | 35° | 110° | 250° | 325° |
| | 32-5 | 35° | 110° | 250° | 325° |
| | 10SL-3 | — | — | — | — |
| 3 | 14S-1 | — | — | — | — |
| | 14S-7 | 90° | 180° | 270° | — |
| | 16S-5 | 70° | 145° | 215° | 290° |
| | 16-10 | 90° | 180° | 270° | — |
| | 18-5 | 80° | 110° | 250° | 280° |
| | 18-21 | — | — | — | — |
| | 18-22 | 70° | 145° | 215° | 290° |
| | 22-2 | 70° | 145° | 215° | 290° |
| | 28-6 | 70° | 145° | 215° | 290° |
| | 36-4 | 70° | 145° | 215° | 290° |
| 4 | 14S-2 | — | 120° | 240° | — |
| | 18-4 | 35° | 110° | 250° | 325° |
| | 18-10 | — | 120° | 240° | — |
| | 20-4 | 45° | 110° | 250° | — |
| | 22-10 | 35° | 110° | 250° | 325° |
| | 22-22 | — | 110° | 250° | — |
| | 24-22 | 45° | 110° | 250° | — |
| | 32-17 | 45° | 110° | 250° | — |
| | 36-5 | — | 120° | 240° | — |
| | 14S-5 | — | 110° | — | — |
| 5 | 16S-8 | — | 170° | 265° | — |
| | 18-11 | — | 170° | 265° | — |
| | 18-20 | 90° | 180° | 270° | — |
| | 32-1 | 80° | 110° | 250° | 280° |
| | 32-2 | 70° | 145° | 215° | 290° |
| 6 | 14S-6 | — | — | — | — |
| | 18-12 | 80° | — | — | 280° |
| | 20-17 | 90° | 180° | 270° | — |
| | 20-22 | 80° | — | 250° | 280° |
| 36-3 | 70° | 145° | 215° | 290° | |

| No. of. Contacts | Insert No. | W | X | Y | Z |
|------------------|------------|-----|------|------|------|
| 7 | 16S-1 | 80° | — | — | 280° |
| | 20-15 | 80° | — | — | 280° |
| | 22-28 | 80° | — | — | 280° |
| | 24-2 | 80° | — | — | 280° |
| | 24-10 | 80° | — | — | 280° |
| 8 | 28-10 | 80° | 110° | 250° | 280° |
| | 18-8 | 70° | — | — | 290° |
| | 20-7 | 80° | 110° | 250° | 280° |
| 9 | 22-23 | 35° | — | — | — |
| | 20-16 | 80° | 110° | 250° | 280° |
| | 20-18 | 35° | 110° | 250° | 325° |
| 10 | 24-11 | 35° | 110° | 250° | 325° |
| | 18-1 | 70° | 145° | 215° | 290° |
| 11 | 18-19 | — | 120° | 240° | — |
| | 24-20 | 80° | 110° | 250° | 280° |
| 14 | 20-27 | 35° | 110° | 250° | 325° |
| | 22-19 | 80° | 110° | 250° | 280° |
| | 28-20 | 80° | 110° | 250° | 280° |
| 16 | 32-9 | 80° | 110° | 250° | 280° |
| | 24-5 | 80° | 110° | 250° | 280° |
| 17 | 24-7 | 80° | 110° | 250° | 280° |
| | 20-29 | 80° | — | — | 280° |
| 19 | 22-14 | 80° | 110° | 250° | 280° |
| 20 | 28-16 | 80° | 110° | 250° | 280° |
| 22 | 28-11 | 80° | 110° | 250° | 280° |
| 24 | 24-28 | 80° | 110° | 250° | 280° |
| 26 | 28-12 | 90° | 180° | 270° | — |
| 30 | 32-8 | 80° | 125° | 235° | 280° |
| 31 | 36-9 | 80° | 125° | 235° | 280° |
| 35 | 28-15 | 80° | 110° | 250° | 280° |
| | 32-7 | 80° | 125° | 235° | 280° |
| 37 | 28-21 | 80° | 110° | 250° | 280° |
| 48 | 36-10 | 80° | 125° | 235° | 280° |
| 52 | 32-414 | 80° | 110° | 250° | 280° |
| 54 | 32A-10 | — | — | — | — |
| 73 | 36-73 | 80° | 110° | 250° | 280° |

D/MS (D190) Series

Unit : mm

Angle Back Shell

CE-□□BA-S-D

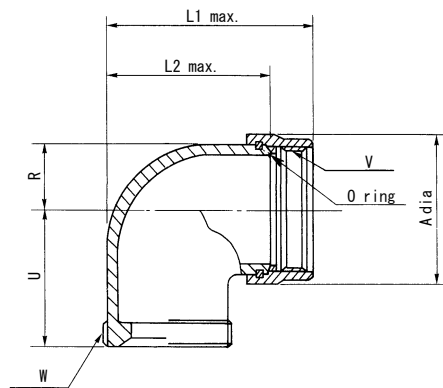
TYPE

S: waterproof type

B
D/MS(D190)

Material/Finish.....Aluminum alloy/Zinc Plating, Trivalent chromate finish (Black)

CE-□□BA-S-D is a waterproof backshell to hold a length of cable at right angle when no conduit is used. When connected with a cable clamp (CE3057-□□A-□-D), it provides water-proofing, oil resistant and dustproofing properties.



| P/N | Shell Size | A | L1 | L2 | R | U | Threads V | Threads W |
|-------------|------------|------|------|------|------|------|--------------|---------------|
| CE-18BA-S-D | 18 | 32.4 | 44.6 | 34.0 | 13.2 | 30.2 | 1-20UNEF | 1-20UNEF |
| CE-20BA-S-D | 20 | 36.0 | 50.5 | 39.6 | 15.0 | 33.3 | 1 1/8-18UNEF | 1 3/16-18UNEF |
| CE-22BA-S-D | 22 | 38.6 | 50.5 | 39.6 | 16.3 | 33.3 | 1 1/4-18UNEF | 1 3/16-18UNEF |
| CE-24BA-S-D | 24 | 42.4 | 60.1 | 47.9 | 18.2 | 36.5 | 1 3/8-18UNEF | 1 7/16-18UNEF |

D/MS (D190) Series

Unit : mm

Waterproof Cable Clamps

B

D/MS(D190)

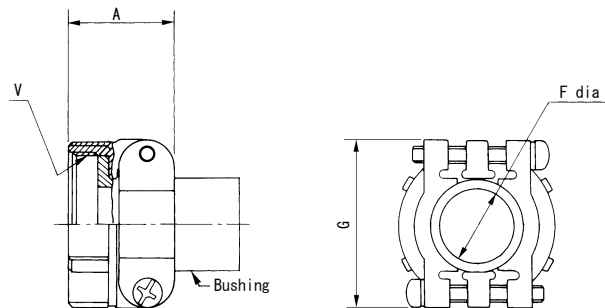
CE3057-□□A-□-D

Material/Finish.....Aluminum alloy/Zinc Plating, Trivalent chromate finish (Black)

CE3057-□□A-□-D is a waterproof cable clamp for use with a plug in either the D/MS (D190) series or the CE01 or CE02 series.

The cable clamp body used the D/MS3057-□□AK that has a waterproof rubber bushing; therefore, be sure to use a jacketed cable meeting on of the applicable cable size ranges as shown.

The cable clamp should be used together with a waterproof backshell.



| P/N | Shell Size | A | F | G | Threads V | Bushing P/N | Cable Outer Diameter |
|----------------|------------|------|------|------|---------------|-------------|----------------------|
| CE3057-10A-1-D | 18 | 23.8 | 14.1 | 31.7 | 1-20UNEF | CE3420-10-1 | 10.5~14.1 |
| CE3057-10A-2-D | | | 11.6 | | | CE3420-10-2 | 8.5~11.0 |
| CE3057-10A-3-D | | | 8.7 | | | CE3420-10-3 | 6.5~8.7 |
| CE3057-12A-1-D | 20, 22 | 23.8 | 16.0 | 37.3 | 1 3/16-18UNEF | CE3420-12-1 | 12.5~16.0 |
| CE3057-12A-2-D | | | 13.0 | | | CE3420-12-2 | 9.5~13.0 |
| CE3057-12A-3-D | | | 10.0 | | | CE3420-12-3 | 6.8~10.0 |
| CE3057-16A-1-D | 24, 28 | 26.2 | 19.1 | 42.9 | 1 7/16-18UNEF | CE3420-16-1 | 15.0~19.1 |
| CE3057-16A-2-D | | | 15.5 | | | CE3420-16-2 | 13.0~15.5 |

D/MS (D190) Series

Unit : mm

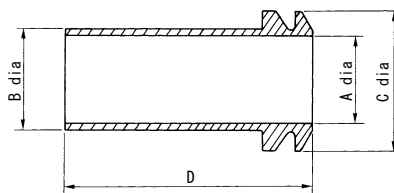
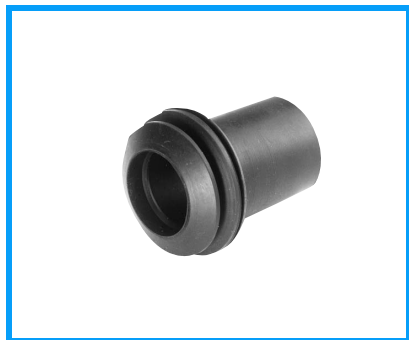
Bushing

CE3420-□□-□

Material/Finish.....Synthetic rubber (Black)

CE3420-□□-□ is the bushing used on cable clamp part number CE3057-□□A-□-D

B
D/MS(D190)



| P/N | A | B | C | D | Applicable Washer |
|-------------|------|------|------|------|-------------------|
| CE3420-10-1 | 14.1 | 15.5 | 21.6 | 38.5 | DMS3057-10W |
| CE3420-10-2 | 11.6 | | | | |
| CE3420-10-3 | 8.7 | | | | |
| CE3420-12-1 | 16.0 | 18.6 | 25.1 | 39.3 | DMS3057-12W |
| CE3420-12-2 | 13.0 | | | | |
| CE3420-12-3 | 10.0 | | | | |
| CE3420-16-1 | 19.1 | 23.4 | 30.5 | 40.0 | DMS3057-16W |
| CE3420-16-2 | 15.5 | | | | |