(2011/65/EU)
+(EU) 2015/863 RoHS2

# MIL-DTL-5015 Style Circular Connectors

## D/MS A/B Series

Fujikura

Conforming Standard
MIL-DTL-5015

Lock Type
Threaded Coupling

### ◆ OUTLINE

D/MS A/B series is compatible with MIL-DTL-5015 and a soldering termination connector.
A various combination of the plugs, receptacles and accessories is also available and can be used for cable-to -cable usage and cable-to-panel usage.
D/MS A/B series is provided with 12 kinds of shell sizes from 10SL to 36, 5 kinds of contact size from #16 to #0 and 73 kinds of insert arrangements to accommodate a wide variety of applications.

### ◆ APPLICATIONS

Aerospace, Machine Tool, Measurement Equipment, Communication Equipment and Other Industrial Equipment

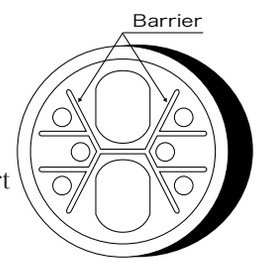
### ◆ CONFORMING STANDARD

MIL-DTL-5015 Class A and B

### ◆ SAFETY STANDARD

UL, C-UL Approved: File Number E72124

### ◆ FEATURES




- The barriers are placed between each contact on the insert to extend the creepage distance for the improvement of dielectric withstanding voltage characteristic.
- Each of the plug shells and the receptacle shells can apply to both of the pin insert assemblies and the socket insert assemblies respectively excluding shell size 10SL.
- A combination of the sockets for input and pin for output is recommended since D/MS A/B series is often used for high voltage equipment to prevent from any accidents.
- The plug shell has a key way and the receptacle shell has a key. The key will be inserted into the key way before the contacts are mated. The insert is rotated within the shell from standard key way and 4 kinds of alternate insert positions, W, X, Y and Z are available to avoid cross–plugging problem in applications requiring the use of more than one connector of the same size and arrangement.
- The solder cups in the insert assembly face in same direction to solder cables easier.
- The surface of shells is coated with zinc plating and finished with trivalent chromium treatment(*) in color black to conform to RoHS directives. (* : Cadmium plating and Olive Drab color is MIL- DTL-5015 specification). The conventional DMS series in Olive Drab color is also available upon your request.

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Other Manufacture's

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Other Manufacture's

## SPECIFICATIONS

**Rated Current**

| Contact Size | Assembled in Insulator |
|---|---|
| # 16 | 13A max. |
| # 12 | 23A max. |
| # 8 | 46A max. |
| # 4 | 80A max. |
| # 0 | 150A max. |

**Rated Voltage**

| Service Rating | DC | AC(r.m.s.) |
|---|---|---|
| INST | 250V | 200V |
| A | 700V | 500V |
| D | 1,250V | 900V |
| E | 1,750V | 1,250V |

**Dielectric Withstanding Voltage**

| Service Rating | Dielectric Withstanding Voltage at 1minute |
|---|---|
| INST | 1,000V AC(r.m.s.) |
| A | 2,000V AC(r.m.s.) |
| D | 2,800V AC(r.m.s.) |
| E | 3,500V AC(r.m.s.) |

**Insulation Resistance**

5000MΩ min. at 500V DC

**Contact Resistance**

| Contact Size | Test Current | Voltage Descent |
|---|---|---|
| # 16 | 13A | 87mV max. |
| # 12 | 23A | 77mV max. |
| # 8 | 46A | 80mV max. |
| # 4 | 80A | 70mV max. |
| # 0 | 150A | 65mV max. |

**Operating Temperature**

-55˚C ～ +125˚C

**Applicable Cable Size**

| Contact Size | Applicable Cable Size | | |
|---|---|---|---|
| | A.W.G. | Official Sectional Area | Conductor Diameter |
| # 16 | #16～# 22 | 1.25mm$^2$ | 1.6mm Max. |
| # 12 | #12～#14 | 3.50mm$^2$ | 2.5mm Max. |
| # 8 | #8～#10 | 8.00mm$^2$ | 4.5mm Max. |
| # 4 | #4～#6 | 22.00mm$^2$ | 7.0mm Max. |
| # 0 | #0～#2 | 50.00mm$^2$ | 11.0mm Max. |

## MATERIAL / FINISH

| Item | Material / Finish |
|---|---|
| Contact | Copper Alloy / Silver or Gold Plating |
| Insert | Diallyl Phthalate Resin(Blue) |
| Shell | Aluminum Alloy / Zinc Plating, Black Trivalent Chromium Treatment |
| Retaining Ring | Copper Alloy / Nickel Plating |
| Gasket | Synthetic Rubber (Nitrile) |

RoHS Compliant

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# D/MS Series A/B Type Ordering Information

**D/MS3102A18-10PY (62)**

## Connector Style

D/MS3100A
Wall Mount Receptacle

(12S ～ 36 Size)

D/MS3101A
Cable Receptacle

(12S ～ 36 Size)

D/MS3102A
Box Mount Receptacle

(10SL ～ 36 Size)

D/MS3106A
Straight Plug

(10SL ～ 36 Size)

D/MS3106B
Straight Plug
(Split Backshell)

(12S ～ 36 Size)

D/MS3108B
Right Angle Plug
(Split Backshell)

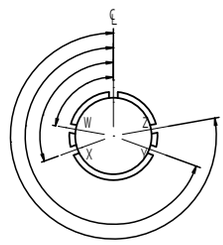
(12S ～ 36 Size)

## Deviation

Omit : Silver Plated Contacts (Standard)
(62) : Gold Plated Contacts (0.5 μ m AU over Ni)

## Alternate Insert Position

No letter is required for normal position. The alternate insert positions, W, X, Y and Z, are available. W, X, Y and Z designate that an insert is rotated in its shell from the standard position. For detailed alternate insert positions, refer to page 8




## Contact Type

P : Pin Contact
S : Socket Contact

When a receptacle connector has pin contacts (P), its mating plug connector should have socket contacts(S). Reverse style of contacts is also feasible.

## Shell Size

Shell sizes are designated by the screw size of mating part which is described in inches multiply by 16. (e.g.) When the screw size of mating part is 1 1/8-18, it is 1 1/8 X 16 =18 of which shell size is 18.

(Available shell size) : 10SL,12S,14S,16S, 16, 18, 20, 22, 24, 28, 32 and 36.

## Insert Arrangement

This is the number allocated to each shell size respectively with its sequential number beginning from number one(1). (However, there are the numbers which are not used.) The insert arrangement number does not show the number of contacts.
For example on the insert arrangement 18-10:
18 shows the shell size. 10 shows the insert arrangement. (The number of contacts is 4.)
With regard to the insert arrangement, refer to page 4 to page 7.

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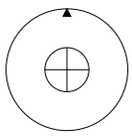
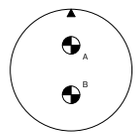
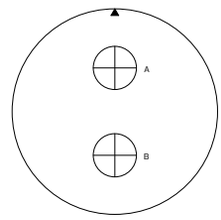
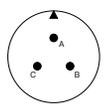
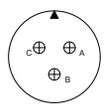
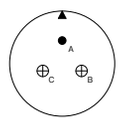
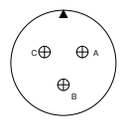
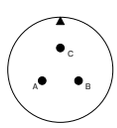
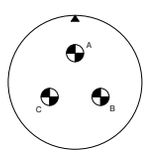
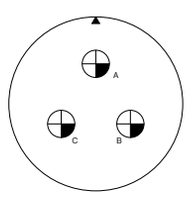
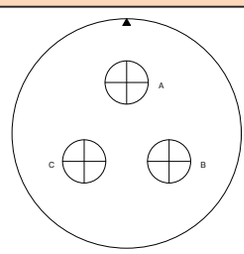
# Insert Arrangement List

## Front View of Pin Contact

| Number of Contact | 1 | 2 | | | | |
|---|---|---|---|---|---|---|
| Insert Arrangement |  | | | |  |  |
| Insert Number | 20-2 | 10SL-4 | 12S-3 | 14S-9 | 20-23 | 32-5 |
| Contact Size | 1-#0 | 2-#16 | 2-#16 | 2-#16 | 2-#8 | 2-#0 |
| Service Rating | D | A | A | A | A | D |
| Rated Current | 150A | 13A | 13A | 13A | 46A | 150A |

| Number of Contact | 3 | | | | | | |
|---|---|---|---|---|---|---|---|
| Insert Arrangement | | | |  |  |  |  |
| Insert Number | 10SL-3 | 14S-1 | 14S-7 | 16S-5 | 16-10 | 18-5 | 18-21 |
| Contact Size | 3-#16 | 3-#16 | 3-#16 | 3-#16 | 3-#12 | 2-#12、1-#16 | 3-#12 |
| Service Rating | A | A | A | A | A | D | A |
| Rated Current | 13A | 13A | 13A | 13A | 23A | #12 : 23A<br>#16 : 13A | 23A |

| Number of Contact | 3 | | | |
|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |
| Insert Number | 18-22 | 22-2 | 28-6 | 36-4 |
| Contact Size | 3-#16 | 3-#8 | 3-#4 | 3-#0 |
| Service Rating | D | D | D | D(A)<br>A(BC) |
| Rated Current | 13A | 46A | 80A | 150A |

| Contact Size Symbol | | • | ⊕ | ◒ | ◒ | ⊕ |
|---|---|---|---|---|---|---|
| | | #16 | #12 | #8 | #4 | #0 |
| Service Rating・・・・・・ | INST | A | D | E | | |
| Rated Voltage AC(r.m.s.) | 200 | 500 | 900 | 1,250 | | |
| Rated Voltage DC ・・・ | 250 | 700 | 1,200 | 1,750 | | |
| Contact Size・・・・・・・・・・・ | | #16 | #12 | #8 | #4 | #0 |
| MAX Current /Contact ・・・・・・ | | 13 | 23 | 46 | 80 | 150 |

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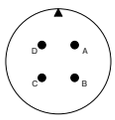
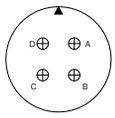
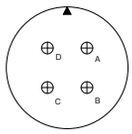
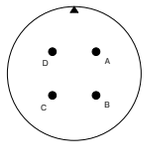
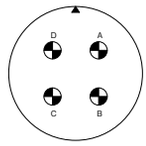
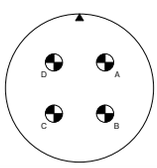
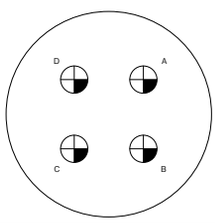
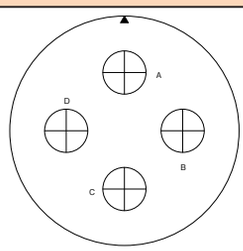
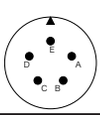
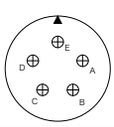
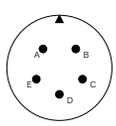
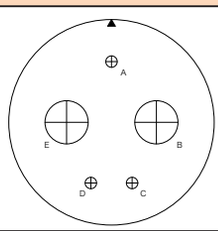
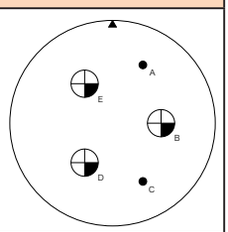
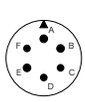
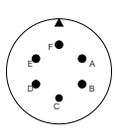
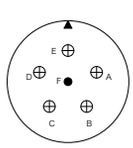
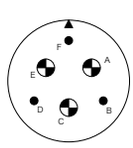
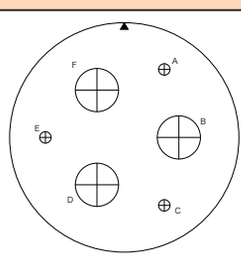
# Insert Arrangement List

| Number of Contact | 4 | | | | | |
|---|---|---|---|---|---|---|
| Insert Arrangement | |  |  |  |  |  |
| Insert Number | 14S-2 | 18-4 | 18-10 | 20-4 | 22-10 | 22-22 |
| Contact Size | 4-#16 | 4-#16 | 4-#12 | 4-#12 | 4-#16 | 4-#8 |
| Service Rating | INST | D | A | D | E | A |
| Rated Current | 13A | 13A | 23A | 23A | 13A | 46A |

| Number of Contact | 4 | | |
|---|---|---|---|
| Insert Arrangement |  |  |  |
| Insert Number | 24-22 | 32-17 | 36-5 |
| Contact Size | 4-#8 | 4-#4 | 4-#0 |
| Service Rating | D | D | A |
| Rated Current | 46A | 80A | 150A |

| Number of Contact | 5 | | | | | |
|---|---|---|---|---|---|---|
| Insert Arrangement | |  |  |  |  |  |
| Insert Number | 14S-5 | 16S-8 | 18-11 | 18-20 | 32-1 | 32-2 |
| Contact Size | 5-#16 | 5-#16 | 5-#12 | 5-#16 | 2-#0、3-#12 | 3-#4, 2-#16 |
| Service Rating | INST | A | A | A | E(A), D | E |
| Rated Current | 13A | 13A | 23A | 13A | # 0 : 150A<br>#12 : 23A | #4 : 80A<br>#16 : 13A |

| Number of Contact | 6 | | | | |
|---|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |  |
| Insert Number | 14S-6 | 18-12 | 20-17 | 20-22 | 36-3 |
| Contact Size | 6-#16 | 6-#16 | 5-#12, 1-#16 | 3-#8, 3-#16 | 3-#0, 3-#12 |
| Service Rating | INST | A | A | A | D |
| Rated Current | 13A | 13A | #12 : 23A<br>#16 : 13A | # 8 : 46A<br>#16 : 13A | # 0 : 150A<br>#16 : 23A |

| Contact Size Symbol | | • | ⊕ | ◔ | ⊕ | ⊕ |
|---|---|---|---|---|---|---|
| | | #16 | #12 | #8 | #4 | #0 |
| Service Rating | INST | A | D | E | | |
| Rated Voltage AC(r.m.s.) | 200 | 500 | 900 | 1,250 | | |
| Rated Voltage DC | 250 | 700 | 1,200 | 1,750 | | |
| Contact Size | | #16 | #12 | #8 | #4 | #0 |
| MAX Current /Contact | | 13 | 23 | 46 | 80 | 150 |

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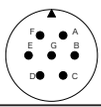
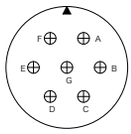
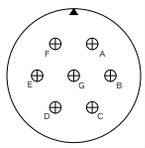
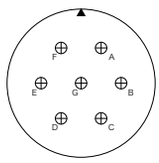
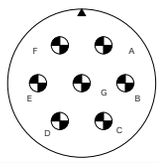
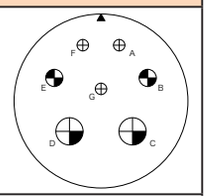
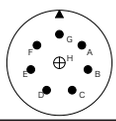
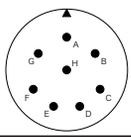
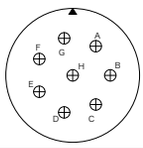
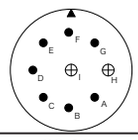
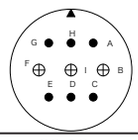
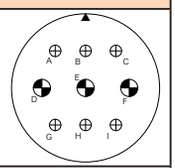
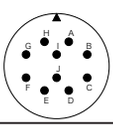
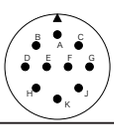
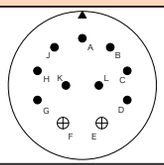
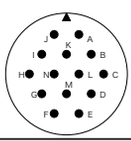
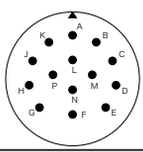
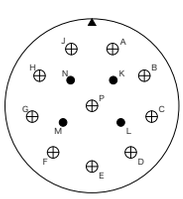
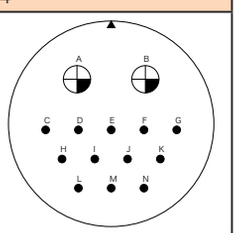
# Insert Arrangement List

| Number of Contact | 7 | | | | | |
|---|---|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |  |  |
| Insert Number | 16S-1 | 20-15 | 22-28 | 24-2 | 24-10 | 28-10 |
| Contact Size | 7-#16 | 7-#12 | 7-#12 | 7-#12 | 7-#8 | 2-#4, 2-#8, 3-#12 |
| Service Rating | A | A | A | D | A | D(G), A |
| Rated Current | 13A | 23A | 23A | 23A | 46A | #4 : 80A<br>#8 : 46A<br>#12 : 23A |

| Number of Contact | 8 | | | 9 | | |
|---|---|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |  |  |
| Insert Number | 18-8 | 20-7 | 22-23 | 20-16 | 20-18 | 24-11 |
| Contact Size | 1-#12, 7-#16 | 8-#16 | 8-#12 | 2-#12, 7-#16 | 3-#12, 6-#16 | 3-#8, 6-#12 |
| Service Rating | A | D(ABHG)<br>A(CDEF) | D(H) A | A | A | A |
| Rated Current | #12 : 23A<br>#16 : 13A | 13A | 23A | #12 : 23A<br>#16 : 13A | #12 : 23A<br>#16 : 13A | #8 : 46A<br>#12 : 23A |

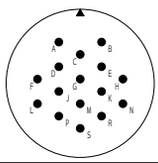
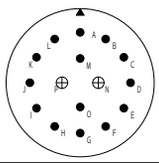
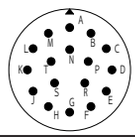
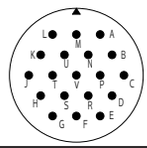
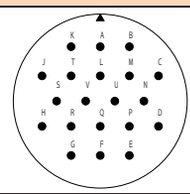
| Number of Contact | 10 | | 11 | 14 | |
|---|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |  |
| Insert Number | 18-1 | 18-19 | 24-20 | 20-27 | 22-19 |
| Contact Size | 10-#16 | 10-#16 | 2-#12, 9-#16 | 14-#16 | 14-#16 |
| Service Rating | A (BCFG)<br>INST | A | D | A | A |
| Rated Current | 13A | 13A | #12 : 23A<br>#16 : 13A | 13A | 13A |

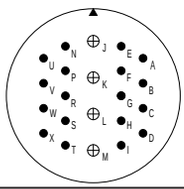
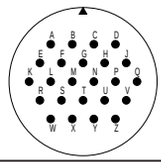
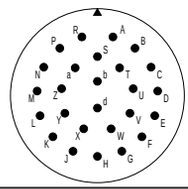
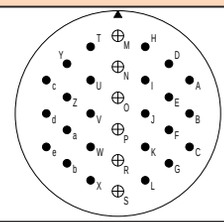
| Number of Contact | 14 | |
|---|---|---|
| Insert Arrangement |  |  |
| Insert Number | 28-20 | 32-9 |
| Contact Size | 10-#12, 4-#16 | 2-#4, 12-#16 |
| Service Rating | A | D |
| Rated Current | #12 : 23A<br>#16 : 13A | #4 : 80A<br>#16 : 13A |

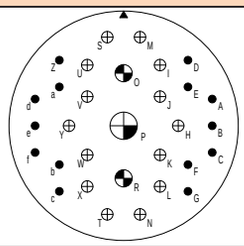
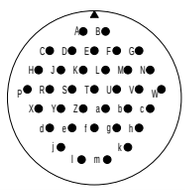
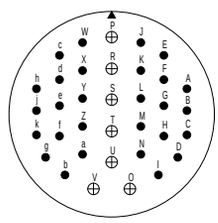
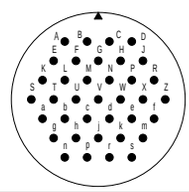
| Contact Size Symbol | | ● #16 | ⊕ #12 | ◔ #8 | ⊕ #4 | ⊕ #0 |
|---|---|---|---|---|---|---|
| Service Rating | INST | A | D | E | | |
| Rated Voltage AC(r.m.s.) | 200 | 500 | 900 | 1,250 | | |
| Rated Voltage DC | 250 | 700 | 1,200 | 1,750 | | |
| Contact Size | | #16 | #12 | #8 | #4 | #0 |
| MAX Current /Contact | | 13 | 23 | 46 | 80 | 150 |

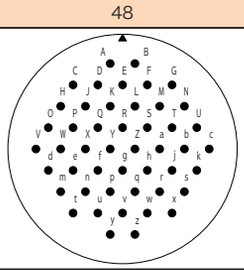
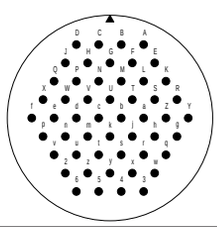
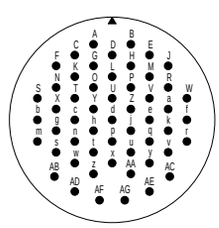
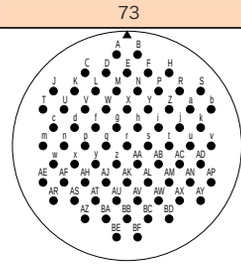
◎ Specifications and/or dimensions in this catalog are subject to change without notice.
Your checking the latest specifications with our drawings would be highly appreciated.

# Insert Arrangement List

| Number of Contact | 16 | | 17 | 19 | 20 |
|---|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |  |
| Insert Number | 24-5 | 24-7 | 20-29 | 22-14 | 28-16 |
| Contact Size | 16-#16 | 2-#12, 14-#16 | 17-#16 | 19-#16 | 20-#16 |
| Service Rating | A | A | A | A | A |
| Rated Current | 13A | #12 : 23A<br>#16 : 13A | 13A | 13A | 13A |

| Number of Contact | 22 | 24 | 26 | 30 |
|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |
| Insert Number | 28-11 | 24-28 | 28-12 | 32-8 |
| Contact Size | 4-#12、18-#16 | 24-#16 | 26-#16 | 6-#12、24-#16 |
| Service Rating | A | INST | A | A |
| Rated Current | #12 : 23A<br>#16 : 13A | 13A | 13A | #12 : 23A<br>#16 : 13A |

| Number of Contact | 31 | 35 | | 37 |
|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |
| Insert Number | 36-9 | 28-15 | 32-7 | 28-21 |
| Contact Size | 1-#4, 2-#8, 14-#12 ,14-#16 | 35-#16 | 7-#12、28-#16 | 37-#16 |
| Service Rating | A | A | INST (ABhj)<br>A | A |
| Rated Current | #4 : 80A #8 : 46A<br>#12 : 23A #16 : 13A | 13A | #12 : 23A<br>#16 : 13A | 13A |

| Number of Contact | 48 | 52 | 54 | 73 |
|---|---|---|---|---|
| Insert Arrangement |  |  |  |  |
| Insert Number | 36-10 | 32-414 | 32A-10 | 36-73 |
| Contact Size | 48-#16 | 52-#16 | 54-#16 | 73-#16 |
| Service Rating | A | A | A | A |
| Rated Current | 13A | 13A | 13A | 13A |

| Contact Size Symbol | | ● #16 | ⊕ #12 | ◔ #8 | ◐ #4 | ⊕ #0 |
|---|---|---|---|---|---|---|
| Service Rating | INST | A | D | E | | |
| Rated Voltage AC(r.m.s.) | 200 | 500 | 900 | 1,250 | | |
| Rated Voltage DC | 250 | 700 | 1,200 | 1,750 | | |
| Contact Size | | #16 | #12 | #8 | #4 | #0 |
| MAX Current /Contact | | 13 | 23 | 46 | 80 | 150 |

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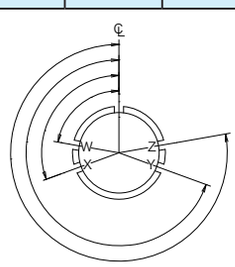
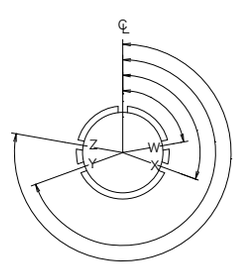
# Alternate Insert Position

| Number of Contact | Insert Number | Alternate Insert Key | | | |
|---|---|---|---|---|---|
| | | W | X | Y | Z |
| 1 | 20-2 | — | — | — | — |
| 2 | 10SL-4 | — | — | — | — |
| | 12S-3 | 70° | 145° | 215° | 290° |
| | 14S-9 | 70° | 145° | 215° | 290° |
| | 20-23 | 35° | 110° | 250° | 325° |
| | 32-5 | 35° | 110° | 250° | 325° |
| 3 | 10SL-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° | 120° | 250° | 325° |
| | 22-22 | — | 110° | 250° | — |
| | 24-22 | 45° | 110° | 250° | — |
| | 32-17 | 45° | 110° | 250° | — |
| | 36-5 | — | 120° | 240° | — |
| 5 | 14S-5 | — | 110° | — | — |
| | 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° | — | — | 280° |
| | 36-3 | 70° | 145° | 215° | 290° |

| Number of Contact | Insert Number | Alternate Insert Key | | | |
|---|---|---|---|---|---|
| | | 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° |
| | 28-10 | 80° | 110° | 250° | 280° |
| 8 | 18-8 | 70° | — | — | 290° |
| | 20-7 | 80° | 110° | 250° | 280° |
| | 22-23 | 35° | — | — | — |
| 9 | 20-16 | 80° | 110° | 250° | 280° |
| | 20-18 | 35° | 110° | 250° | 325° |
| | 24-11 | 35° | 110° | 250° | 325° |
| 10 | 18-1 | 70° | 145° | 215° | 290° |
| | 18-19 | — | 120° | 240° | — |
| 11 | 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° |
| | 32-9 | 80° | 110° | 250° | 280° |
| 16 | 24-5 | 80° | 110° | 250° | 280° |
| | 24-7 | 80° | 110° | 250° | 280° |
| 17 | 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° |




Front View of Pin Insert




Front View of Socket Insert

◎ Specifications and/or dimensions in this catalog are subject to change without notice.
Your checking the latest specifications with our drawings would be highly appreciated.

## Insert Arrangement List

● symbol means both pin and receptacle contacts are available

| Insert No. | Number of Contact | Service Rating | Contact Size | | | | | Receptacle | | | Plug | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | #0 | #4 | #8 | #12 | #16 | D/MS 3100A | D/MS 3101A | D/MS 3102A | D/MS 3106A | D/MS 3106B | D/MS 3108B |
| 10SL-3 | 3 | A | | | | | 3 | | | Pin insert only | Socket insert only | | |
| 10SL-4 | 2 | A | | | | | 2 | | | Pin insert only | Socket insert only | | |
| 12S-3 | 2 | A | | | | | 2 | ● | ● | ● | ● | ● | ● |
| 14S-1 | 3 | A | | | | | 3 | ● | ● | ● | ● | ● | ● |
| 14S-2 | 4 | INST | | | | | 4 | ● | ● | ● | ● | ● | ● |
| 14S-5 | 5 | INST | | | | | 5 | ● | ● | ● | ● | ● | ● |
| 14S-6 | 6 | INST | | | | | 6 | ● | ● | ● | ● | ● | ● |
| 14S-7 | 3 | A | | | | | 3 | ● | ● | ● | ● | ● | ● |
| 14S-9 | 2 | A | | | | | 2 | ● | ● | ● | ● | ● | ● |
| 16S-1 | 7 | A | | | | | 7 | ● | ● | ● | ● | ● | ● |
| 16S-5 | 3 | A | | | | | 3 | ● | ● | ● | ● | ● | ● |
| 16S-8 | 5 | A | | | | | 5 | ● | ● | ● | ● | ● | ● |
| 16-10 | 3 | A | | | | 3 | | ● | ● | ● | ● | ● | ● |
| 18-1 | 10 | A | | | | | 4 | ● | ● | ● | ● | ● | ● |
| | | INST | | | | | 6 | | | | | | |
| 18-4 | 4 | D | | | | | 4 | ● | ● | ● | ● | ● | ● |
| 18-5 | 3 | D | | | | 2 | 1 | ● | ● | ● | ● | ● | ● |
| 18-8 | 8 | A | | | | 1 | 7 | ● | ● | ● | ● | ● | ● |
| 18-10 | 4 | A | | | | 4 | | ● | ● | ● | ● | ● | ● |
| 18-11 | 5 | A | | | | 5 | | ● | ● | ● | ● | ● | ● |
| 18-12 | 6 | A | | | | | 6 | ● | ● | ● | ● | ● | ● |
| 18-19 | 10 | A | | | | | 10 | ● | ● | ● | ● | ● | ● |
| 18-20 | 5 | A | | | | | 5 | ● | ● | ● | ● | ● | ● |
| 18-21 | 3 | A | | | | 3 | | ● | ● | ● | ● | ● | ● |
| 18-22 | 3 | D | | | | | 3 | ● | ● | ● | ● | ● | ● |
| 20-2 | 1 | D | 1 | | | | | ● | ● | ● | ● | ● | ● |
| 20-4 | 4 | D | | | | 4 | | ● | ● | ● | ● | ● | ● |
| 20-7 | 8 | D | | | | | 4 | ● | ● | ● | ● | ● | ● |
| | | A | | | | | 4 | | | | | | |
| 20-15 | 7 | A | | | | 7 | | ● | ● | ● | ● | ● | ● |
| 20-16 | 9 | A | | | | 2 | 7 | ● | ● | ● | ● | ● | ● |
| 20-17 | 6 | A | | | | 5 | 1 | ● | ● | ● | ● | ● | ● |
| 20-18 | 9 | A | | | | 3 | 6 | ● | ● | ● | ● | ● | ● |
| 20-22 | 6 | A | | | 3 | | 3 | ● | ● | ● | ● | ● | ● |
| 20-23 | 2 | A | | | 2 | | | ● | ● | ● | ● | ● | ● |
| 20-27 | 14 | A | | | | | 14 | ● | ● | ● | ● | ● | ● |
| 20-29 | 17 | A | | | | | 17 | ● | ● | ● | ● | ● | ● |
| 22-2 | 3 | D | | | 3 | | | ● | ● | ● | ● | ● | ● |
| 22-10 | 4 | E | | | | | 4 | ● | ● | ● | ● | ● | ● |
| 22-14 | 19 | A | | | | | 19 | ● | ● | ● | ● | ● | ● |
| 22-19 | 14 | A | | | | | 14 | ● | ● | ● | ● | ● | ● |
| 22-22 | 4 | A | | | 4 | | | ● | ● | ● | ● | ● | ● |
| 22-23 | 8 | D | | | | 1 | | ● | ● | ● | ● | ● | ● |
| | | A | | | | 7 | | | | | | | |
| 22-28 | 7 | A | | | | 7 | | ● | ● | ● | ● | ● | ● |

◎ Specifications and/or dimensions in this catalog are subject to change without notice.
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# Insert Arrangement List

| Insert No. | Number of Contact | Service Rating | Contact Size | | | | | Receptacle | | | Plug | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | #0 | #4 | #8 | #12 | #16 | D/MS 3100A | D/MS 3101A | D/MS 3102A | D/MS 3106A | D/MS 3106B | D/MS 3108B |
| 24-2 | 7 | D | | | | 7 | | ● | ● | ● | ● | ● | ● |
| 24-5 | 16 | A | | | | | 16 | ● | ● | ● | ● | ● | ● |
| 24-7 | 16 | A | | | | 2 | 14 | ● | ● | ● | ● | ● | ● |
| 24-10 | 7 | A | | | 7 | | | ● | ● | ● | ● | ● | ● |
| 24-11 | 9 | A | | | 3 | 6 | | ● | ● | ● | ● | ● | ● |
| 24-20 | 11 | D | | | | 2 | 9 | ● | ● | ● | ● | ● | ● |
| 24-22 | 4 | D | | | 4 | | | ● | ● | ● | ● | ● | ● |
| 24-28 | 24 | INST | | | | | 24 | ● | ● | ● | ● | ● | ● |
| 28-6 | 3 | D | | 3 | | | | ● | ● | ● | ● | ● | ● |
| 28-10 | 7 | D | | | | 1 | | ● | ● | ● | ● | ● | ● |
| | | A | | 2 | 2 | 2 | | | | | | | |
| 28-11 | 22 | A | | | | 4 | 18 | ● | ● | ● | ● | ● | ● |
| 28-12 | 26 | A | | | | | 26 | ● | ● | ● | ● | ● | ● |
| 28-15 | 35 | A | | | | | 35 | ● | ● | ● | ● | ● | ● |
| 28-16 | 20 | A | | | | | 20 | ● | ● | ● | ● | ● | ● |
| 28-20 | 14 | A | | | | 10 | 4 | ● | ● | ● | ● | ● | ● |
| 28-21 | 37 | A | | | | | 37 | ● | ● | ● | ● | ● | ● |
| 32-1 | 5 | E | | | | 1 | | ● | ● | ● | ● | ● | ● |
| | | D | 2 | | | 2 | | | | | | | |
| 32-2 | 5 | E | | 3 | | | 2 | ● | ● | ● | ● | ● | ● |
| 32-5 | 2 | D | 2 | | | | | ● | ● | ● | ● | ● | ● |
| 32-7 | 35 | A | | | | 7 | 24 | ● | ● | ● | ● | ● | ● |
| | | INST | | | | | 4 | | | | | | |
| 32-8 | 30 | A | | | | 6 | 24 | ● | ● | ● | ● | ● | ● |
| 32-9 | 14 | D | | 2 | | | 12 | ● | ● | ● | ● | ● | ● |
| 32A-10 | 54 | A | | | | | 54 | ● | ● | ● | ● | ● | ● |
| 32-17 | 4 | D | | 4 | | | | ● | ● | ● | ● | ● | ● |
| 32-414 | 52 | A | | | | | 52 | ● | ● | ● | ● | ● | ● |
| 36-3 | 6 | D | 3 | | | 3 | | ● | ● | ● | ● | ● | ● |
| 36-4 | 3 | D | 1 | | | | | ● | ● | ● | ● | ● | ● |
| | | A | 2 | | | | | | | | | | |
| 36-5 | 4 | A | 4 | | | | | ● | ● | ● | ● | ● | ● |
| 36-9 | 31 | A | | 1 | 2 | 14 | 14 | ● | ● | ● | ● | ● | ● |
| 36-10 | 48 | A | | | | | 48 | ● | ● | ● | ● | ● | ● |
| 36-73 | 73 | A | | | | | 73 | ● | ● | ● | ● | ● | ● |

Note : The insert numbers of 10SL-3 and 10SL-4 are available with the following four(4) part numbers only,

D/MS3106A10SL-3S D/MS3102A10SL-3P

D/MS3106A10SL-4S D/MS3102A10SL-4P

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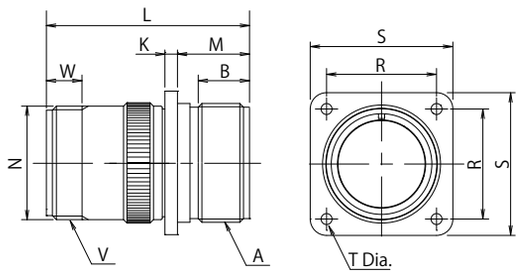
Unit : mm

# Wall Mount Receptacle

## D/MS3100A18-10PY (62)
① ② ③ ④ ⑤ ⑥

| | |
|---|---|
| ① Connector Style | 3100A Wall Mount Receptacle |
| ② Shell Size | 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36 |
| ③ Insert Arrangement | Refer to page 9 – page 10. |
| ④ Contact Type | P : Pin Contact, S : Socket Contact |
| ⑤ Alternate Key Positions | Omit : Standard Position, W,X,Y,Z : Refer to page 8. |
| ⑥ Deviation | Omit : Silver Plated Contacts (Standard)<br>(62) : Gold Plated Contacts (0.5 μ m AU over Ni) |

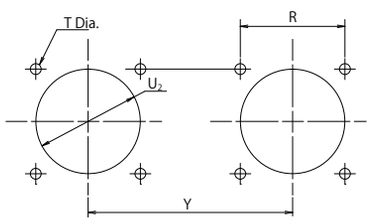
D/MS3100A is a receptacle connector which is mounted on the panel or the chassis with the cable terminated on the backend. This can mate with all of D/MS plug connectors.



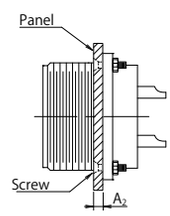

◎ Cable clamp (D/MS3057- □□ A(R1)) is available.

| Shell Size | A | B Min. FullThread | K±0.5 | L Max. | M $^{+0.78}_{0}$ | ϕ N±0.5 | R±0.12 | S±0.5 | ϕ T $^{+0.34}_{0}$ Dia. | V | W Min. Full Thread |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12S | 3/4-20UNEF | 9.60 | 2.00 | 37.49 | 14.48 | 19.9 | 20.62 | 27.80 | 3.05 | 5/8-24UNEF | 9.53 |
| 14S | 7/8-20UNEF | 9.53 | 2.00 | 37.49 | 14.48 | 22.3 | 23.02 | 30.20 | 2.93 | 3/4-20UNEF | 9.65 |
| 16S | 1-20UNEF | 9.53 | 2.00 | 37.30 | 14.47 | 25.6 | 24.60 | 32.54 | 3.05 | 7/8-20UNEF | 9.53 |
| 16 | 1-20UNEF | 15.88 | 3.35 | 47.89 | 19.25 | 25.6 | 24.61 | 32.54 | 2.93 | 7/8-20UNEF | 9.53 |
| 18 | 1 1/8-18UNEF | 15.88 | 3.35 | 51.06 | 19.24 | 28.6 | 26.99 | 34.92 | 2.93 | 1-20UNEF | 9.53 |
| 20 | 1 1/4-18UNEF | 15.88 | 3.35 | 54.25 | 19.24 | 31.9 | 29.37 | 38.10 | 2.93 | 1 3/16-18UNEF | 9.53 |
| 22 | 1 3/8-18UNEF | 15.88 | 3.35 | 54.24 | 19.20 | 34.9 | 31.75 | 41.27 | 3.05 | 1 3/16-18UNEF | 9.53 |
| 24 | 1 1/2-18UNEF | 15.88 | 3.35 | 57.36 | 20.80 | 38.2 | 34.93 | 44.45 | 3.61 | 1 7/16-18UNEF | 9.53 |
| 28 | 1 3/4-18UNS | 15.88 | 3.35 | 57.36 | 20.80 | 44.5 | 39.67 | 50.80 | 3.61 | 1 7/16-18UNEF | 9.53 |
| 32 | 2-18UNS | 15.88 | 3.35 | 60.56 | 22.40 | 51.4 | 44.45 | 56.90 | 4.27 | 1 3/4-18UNS | 11.13 |
| 36 | 2 1/4-16UN | 15.88 | 3.35 | 60.50 | 22.42 | 57.1 | 49.20 | 63.50 | 4.40 | 2-18UNS | 12.70 |

## Panel Mounting Dimension




Rear Mounting




| Shell Size | Y | R±0.13 | T $^{+0.78}_{0}$ | U2 (Min.) | A2 | Panel Mounting Screw(Ref) | F Gasket |
|---|---|---|---|---|---|---|---|
| 12S | 50 | 20.62 | 3.05 | 19.8 | 3.0 | M3 | P-100841-12(R1) |
| 14S | 53 | 23.01 | 3.05 | 23.0 | 3.0 | M3 | P-100841-14(R1) |
| 16S, 16 | 56 | 24.61 | 3.05 | 26.1 | 3.0 | M3 | P-100841-16(R1) |
| 18 | 59 | 26.97 | 3.05 | 29.3 | 3.0 | M3 | P-100841-18(R1) |
| 20 | 62 | 29.36 | 3.05 | 32.5 | 3.0 | M3 | P-100841-20(R1) |
| 22 | 70 | 31.75 | 3.05 | 35.7 | 3.0 | M3 | P-100841-22(R1) |
| 24 | 73 | 34.92 | 3.75 | 38.8 | 3.0 | M3.5 | P-100841-24(R1) |
| 28 | 80 | 36.67 | 3.75 | 45.2 | 3.0 | M3.5 | P-100841-28(R1) |
| 32 | 86 | 44.45 | 4.40 | 51.5 | 3.0 | M4 | P-100841-32(R1) |
| 36 | 92 | 49.23 | 4.40 | 57.9 | 3.0 | M4 | P-100841-36(R1) |

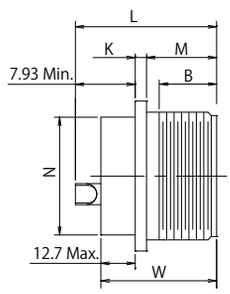
◎ Specifications and/or dimensions in this catalog are subject to change without notice.
Your checking the latest specifications with our drawings would be highly appreciated.

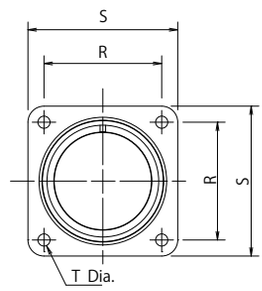
Unit : mm

# Box Mount Receptacle

## D/MS3102A18-10PY (62)
① ② ③ ④ ⑤ ⑥

| | |
|---|---|
| ① Connector Style | 3102A Box Mount Receptacle |
| ② Shell Size | 10SL, 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36 |
| ③ Insert Arrangement | Refer to page 9 – page 10. |
| ④ Contact Type | P : Pin Contact, S : Socket Contact |
| ⑤ Alternate Key Positions | Omit : Standard Position, W,X,Y,Z : Refer to page 8. |
| ⑥ Deviation | Omit : Silver Plated Contacts (Standard)<br>(62) : Gold Plated Contacts (0.5 μ m AU over Ni) |

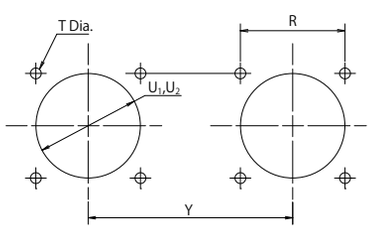


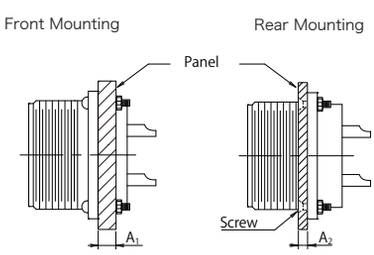




D/MS3102A is a receptacle connector which is mounted on the panel or the chassis with the cable terminated on the backend. This can mate with all of D/MS plug connectors.

| Shell Size | A | B (Min.) | K±0.5 | L (Max.) | M $^{+0.78}_{0}$ | ϕ N±0.5 | R±0.12 | S±0.5 | ϕ T $^{+0.25}_{-0.12}$ | W±0.5 |
|---|---|---|---|---|---|---|---|---|---|---|
| 10SL | 5/8-24UNEF | 9.53 | 2.0 | 30.25 | 14.28 | 15.75 | 18.26 | 25.40 | 3.05 | 21.85 |
| 12S | 3/4-20UNEF | 9.53 | 2.0 | 30.25 | 14.28 | 17.02 | 20.62 | 27.80 | 3.05 | 24.0 |
| 14S | 7/8-20UNEF | 9.53 | 2.0 | 30.25 | 14.28 | 19.05 | 23.02 | 30.20 | 3.05 | 24.0 |
| 16S | 1-20UNEF | 9.53 | 2.0 | 30.25 | 14.28 | 22.22 | 24.61 | 32.50 | 3.05 | 24.0 |
| 16 | 1-20UNEF | 15.90 | 3.35 | 44.45 | 19.05 | 22.22 | 24.61 | 32.50 | 3.05 | 34.4 |
| 18 | 1 1/8-18UNEF | 15.90 | 3.35 | 49.22 | 19.05 | 25.40 | 26.99 | 34.92 | 3.05 | 34.4 |
| 20 | 1 1/4-18UNEF | 15.90 | 3.35 | 49.22 | 19.05 | 28.57 | 29.37 | 38.10 | 3.05 | 34.4 |
| 22 | 1 3/8-18UNEF | 15.90 | 3.35 | 49.22 | 19.05 | 31.75 | 31.75 | 41.30 | 3.05 | 34.4 |
| 24 | 1 1/2-18UNEF | 15.90 | 3.35 | 49.22 | 20.63 | 34.92 | 34.93 | 44.40 | 3.74 | 34.4 |
| 28 | 1 3/4-18UNS | 15.90 | 3.35 | 49.22 | 20.63 | 41.27 | 39.67 | 50.80 | 3.74 | 34.4 |
| 32 | 2-18UNS | 15.90 | 3.35 | 49.22 | 22.23 | 48.42 | 44.45 | 57.20 | 4.40 | 36.7 |
| 36 | 2 1/4-16UN | 15.90 | 3.35 | 49.22 | 22.23 | 53.97 | 49.20 | 63.50 | 4.40 | 36.7 |

## Panel Mounting Dimension




| Shell Size | Y | R±0.13 | T $^{+0.25}_{-0.12}$ | U1 (Min.) | U2 (Min.) | A1 | A2 | Panel Mounting Screw(Ref) | R Gasket | F Gasket |
|---|---|---|---|---|---|---|---|---|---|---|
| 10SL | 47 | 18.26 | 3.05 | 16.8 | 16.6 | 10 | 3.0 | M3 | P-100842-10SL(R1) | P-100841-10SL(R1) |
| 12S | 50 | 20.62 | 3.05 | 18.4 | 19.8 | 10 | 3.0 | M3 | P-100842-12(R1) | P-100841-12(R1) |
| 14S | 53 | 23.01 | 3.05 | 20.0 | 23.0 | 10 | 3.0 | M3 | P-100842-14(R1) | P-100841-14(R1) |
| 16S, 16 | 56 | 24.61 | 3.05 | 23.1 | 26.1 | 10 | 3.0 | M3 | P-100842-16(R1) | P-100841-16(R1) |
| 18 | 59 | 26.97 | 3.05 | 26.4 | 29.3 | 10 | 3.0 | M3 | P-100842-18(R1) | P-100841-18(R1) |
| 20 | 62 | 29.36 | 3.05 | 29.5 | 32.5 | 10 | 3.0 | M3 | P-100842-20(R1) | P-100841-20(R1) |
| 22 | 70 | 31.75 | 3.05 | 32.7 | 35.7 | 10 | 3.0 | M3 | P-100842-22(R1) | P-100841-22(R1) |
| 24 | 73 | 34.92 | 3.75 | 35.9 | 38.8 | 10 | 3.0 | M3.5 | P-100842-24(R1) | P-100841-24(R1) |
| 28 | 80 | 39.67 | 3.75 | 42.2 | 45.2 | 10 | 3.0 | M3.5 | P-100842-28(R1) | P-100841-28(R1) |
| 32 | 86 | 44.45 | 4.40 | 49.3 | 51.5 | 10 | 3.0 | M4 | P-100842-32(R1) | P-100841-32(R1) |
| 36 | 92 | 49.23 | 4.40 | 54.9 | 57.9 | 10 | 3.0 | M4 | P-100842-36(R1) | P-100841-36(R1) |

◎ Specifications and/or dimensions in this catalog are subject to change without notice.
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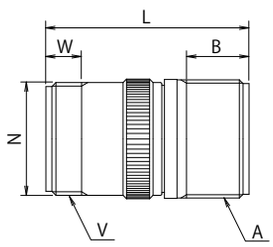
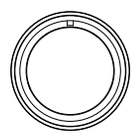
Unit : mm

## ▶Cable Receptacle

**D/MS3101A18-10PY (62)**
① ② ③ ④ ⑤ ⑥

| | |
|---|---|
| ① Connector Style | 3101A Cable Receptacle |
| ② Shell Size | 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36 |
| ③ Insert Arrangement | Refer to page 9 – page 10. |
| ④ Contact Type | P : Pin Contact, S : Socket Contact |
| ⑤ Alternate Key Positions | Omit : Standard Position, W,X,Y,Z : Refer to page 8. |
| ⑥ Deviation | Omit : Silver Plated Contacts (Standard)<br>(62) : Gold Plated Contacts (0.5 μ m AU over Ni) |



D/MS3101A is a cable receptacle connector (in-line receptacle connector), which is not mounted on the panel, to be used for connecting the cable with the cable. This can mate with all of D/MS plug connectors.

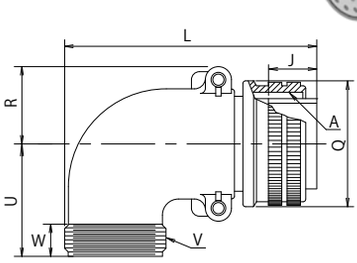
◎ Cable clamp(D/MS3057- □□ A(R1)) is availabke.

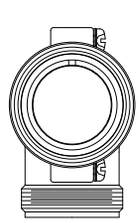
| Shell Size | A | B (Min.) | L±1.5 | ϕ N±0.5 | V | W Min. Full Thread |
|---|---|---|---|---|---|---|
| 12S | 3/4-20UNEF | 9.53 | 37.49 | 19.90 | 5/8-24UNEF | 9.53 |
| 14S | 7/8-20UNEF | 9.53 | 37.49 | 22.30 | 3/4-20UNEF | 9.53 |
| 16S | 1-20UNEF | 9.53 | 37.30 | 25.60 | 7/8-20UNEF | 9.53 |
| 16 | 1-20UNEF | 16.70 | 47.89 | 25.60 | 7/8-20UNEF | 9.53 |
| 18 | 1 1/8-18UNEF | 16.70 | 51.09 | 28.60 | 1-20UNEF | 9.53 |
| 20 | 1 1/4-18UNEF | 16.70 | 54.25 | 31.90 | 1 3/16-18UNEF | 9.53 |
| 22 | 1 3/8-18UNEF | 16.70 | 54.24 | 34.90 | 1 3/16-18UNEF | 9.53 |
| 24 | 1 1/2-18UNEF | 16.70 | 57.36 | 38.20 | 1 7/16-18UNEF | 9.53 |
| 28 | 1 3/4-18UNS | 16.70 | 57.36 | 44.50 | 1 7/16-18UNEF | 9.53 |
| 32 | 2-18UNS | 16.70 | 60.56 | 51.40 | 1 3/4-18UNS | 11.13 |
| 36 | 2 1/4-16UN | 16.70 | 60.50 | 57.10 | 2-18UNS | 12.70 |

## ▶Right Angle Plug(Split Backshell)

**D/MS3108B18-10PY (62)**
① ② ③ ④ ⑤ ⑥

| | |
|---|---|
| ① Connector Style | 3108B Right Angle Receptacle (Split Backshell) |
| ② Shell Size | 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36 |
| ③ Insert Arrangement | Refer to page 9 – page 10. |
| ④ Contact Type | P : Pin Contact, S : Socket Contact |
| ⑤ Alternate Key Positions | Omit : Standard Position, W,X,Y,Z : Refer to page 8. |
| ⑥ Deviation | Omit : Silver Plated Contacts (Standard)<br>(62) : Gold Plated Contacts (0.5 μ m AU over Ni) |



D/MS3108B is a 90° angle plug connector with split bask shells. This connector can mate with all of D/MS receptacle connectors.

◎ Cable clamp(D/MS3057- □□ A(R1)) is availabke.

| Shell Size | A | J±0.12 | L (Min.) | ϕ Q $^{0}_{-0.38}$ | R±0.5 | U±0.5 | V | W Min. Full Thread |
|---|---|---|---|---|---|---|---|---|
| 12S | 3/4-20UNEF | 13.49 | 50.80 | 25.40 | 10.50 | 25.4 | 5/8-24UNEF | 9.53 |
| 14S | 7/8-20UNEF | 13.49 | 53.97 | 28.57 | 16.06 | 27.0 | 3/4-20UNEF | 9.53 |
| 16S | 1-20UNEF | 13.49 | 60.32 | 31.75 | 18.50 | 28.6 | 7/8-20UNEF | 9.53 |
| 16 | 1-20UNEF | 18.26 | 65.07 | 31.75 | 18.50 | 28.6 | 7/8-20UNEF | 9.53 |
| 18 | 1 1/8-18UNEF | 18.26 | 68.75 | 34.13 | 20.69 | 30.2 | 1-20UNEF | 9.53 |
| 20 | 1 1/4-18UNEF | 18.26 | 76.98 | 37.28 | 22.92 | 33.3 | 1 3/16-18UNEF | 9.53 |
| 22 | 1 3/8-18UNEF | 18.26 | 76.98 | 40.48 | 24.51 | 33.3 | 1 3/16-18UNEF | 9.53 |
| 24 | 1 1/2-18UNEF | 18.26 | 86.51 | 43.63 | 26.10 | 36.5 | 1 7/16-18UNEF | 9.53 |
| 28 | 1 3/4-18UNS | 18.26 | 86.51 | 50.01 | 29.27 | 36.5 | 1 7/16-18UNEF | 9.53 |
| 32 | 2-18UNS | 18.26 | 95.25 | 56.33 | 32.84 | 44.4 | 1 3/4-18UNS | 11.13 |
| 36 | 2 1/4-16UN | 18.26 | 100.02 | 62.68 | 36.00 | 49.2 | 2-18UNS | 12.70 |

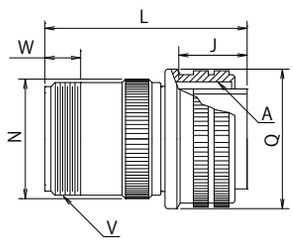
◎ Specifications and/or dimensions in this catalog are subject to change without notice.
Your checking the latest specifications with our drawings would be highly appreciated.

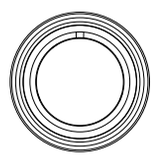
Unit : mm

## ▶Straight Plug (Solid Shell)

**D/MS3106A 18-10PY (62)**
① ② ③ ④ ⑤ ⑥

| | |
|---|---|
| ① Connector Style | 3106A Straight Plug |
| ② Shell Size | 10SL, 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36 |
| ③ Insert Arrangement | Refer to page 9 – page 10. |
| ④ Contact Type | P : Pin Contact, S : Socket Contact |
| ⑤ Alternate Key Positions | Omit: Standard Position, W,X,Y,Z : Refer to page 8. |
| ⑥ Deviation | Omit : Silver Plated Contacts (Standard)<br>(62) : Gold Plated Contacts (0.5 μ m AU over Ni) |



D/MS3106A type is a plug connector which is straight to relay another receptacle connector.This plug connector can mate with all of D/MS receptacle connectors.

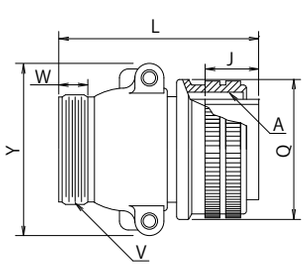
◎ Cable clamp (D/MS3057- □□ A(R1)) is available.

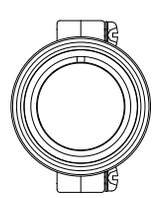
| Shell Size | A | J±0.12 | L±0.5 | ϕ Q$^{0}_{-0.38}$ | ϕ N±0.5 | V | W Min. Full Thread |
|---|---|---|---|---|---|---|---|
| 10SL | 5/8-24UNEF | 13.49 | 33.76 | 22.17 | 19.12 | 5/8-24UNEF | 9.53 |
| 12S | 3/4-20UNEF | 13.49 | 36.49 | 25.35 | 19.90 | 5/8-24UNEF | 9.53 |
| 14S | 7/8-20UNEF | 13.49 | 36.49 | 28.52 | 22.30 | 3/4-20UNEF | 9.65 |
| 16S | 1-20UNEF | 13.49 | 36.94 | 31.70 | 25.60 | 7/8-20UNEF | 9.53 |
| 16 | 1-20UNEF | 18.26 | 47.64 | 31.70 | 25.60 | 7/8-20UNEF | 9.53 |
| 18 | 1 1/8-18UNEF | 18.26 | 50.81 | 34.08 | 28.60 | 1-20UNEF | 9.53 |
| 20 | 1 1/4-18UNEF | 18.26 | 54.00 | 37.23 | 31.90 | 1 3/16-18UNEF | 9.53 |
| 22 | 1 3/8-18UNEF | 18.26 | 53.98 | 40.43 | 34.90 | 1 3/16-18UNEF | 9.53 |
| 24 | 1 1/2-18UNEF | 18.26 | 57.14 | 43.58 | 38.20 | 1 7/16-18UNEF | 9.53 |
| 28 | 1 3/4-18UNS | 18.26 | 57.14 | 49.95 | 44.50 | 1 7/16-18UNEF | 9.53 |
| 32 | 2-18UNS | 18.26 | 60.31 | 56.28 | 51.40 | 1 3/4-18UNS | 11.13 |
| 36 | 2 1/4-16UN | 18.26 | 60.31 | 62.63 | 57.10 | 2-18UNS | 12.70 |

## ▶Straight Plug(Split Backshell)

**D/MS3106B 18-10PY (62)**
① ② ③ ④ ⑤ ⑥

| | |
|---|---|
| ① Connector Style | 3106B: Straight Backshell (Split Backshell) |
| ② Shell Size | 12S, 14S, 16S, 16, 18, 20, 22, 24, 28, 32, 36 |
| ③ Insert Arrangement | Refer to page 9 – page 10. |
| ④ Contact Type | P : Pin Contact, S : Socket Contact |
| ⑤ Alternate Key Positions | Omit: Standard Position, W,X,Y,Z : Refer to page 8. |
| ⑥ Deviation | Omit : Silver Plated Contacts (Standard)<br>(62) : Gold Plated Contacts (0.5 μ m AU over Ni) |



D/MS3106B is a straight plug connector with split backshells.
This is used for applications where soldering and inspection is the prime requirement due to the split backshell.

◎ Cable clamp (D/MS3057- □□ A(R1)) is available.

| Shell Size | A | J±0.12 | L (Min.) | ϕ Q$^{0}_{-0.38}$ | V | W (Min.) | Y (Max.) |
|---|---|---|---|---|---|---|---|
| 12S | 3/4-20UNEF | 13.49 | 42.94 | 25.40 | 5/8-24UNEF | 9.53 | 27 |
| 14S | 7/8-20UNEF | 13.49 | 43.39 | 28.57 | 3/4-20UNEF | 8.00 | 30 |
| 16S | 1-20UNEF | 13.49 | 42.88 | 31.75 | 7/8-20UNEF | 8.50 | 32 |
| 16 | 1-20UNEF | 18.26 | 52.37 | 31.75 | 7/8-20UNEF | 8.50 | 32 |
| 18 | 1 1/8-18UNEF | 18.26 | 53.07 | 34.13 | 1-20UNEF | 9.53 | 42 |
| 20 | 1 1/4-18UNEF | 18.26 | 55.57 | 37.28 | 1 3/16-18UNEF | 9.53 | 47 |
| 22 | 1 3/8-18UNEF | 18.26 | 55.57 | 40.48 | 1 3/16-18UNEF | 9.53 | 50 |
| 24 | 1 1/2-18UNEF | 18.26 | 58.72 | 43.63 | 1 7/16-18UNEF | 9.53 | 53 |
| 28 | 1 3/4-18UNS | 18.26 | 58.72 | 50.01 | 1 7/16-18UNEF | 9.53 | 59 |
| 32 | 2-18UNS | 18.26 | 61.92 | 56.33 | 1 3/4-18UNS | 11.13 | 66 |
| 36 | 2 1/4-16UN | 18.26 | 61.92 | 62.68 | 2-18UNS | 12.70 | 73 |

◎ Specifications and/or dimensions in this catalog are subject to change without notice.
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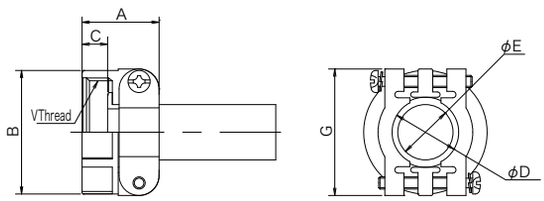
Unit : mm

## Cable Clamp

### D/MS3057- □□ A(R1)

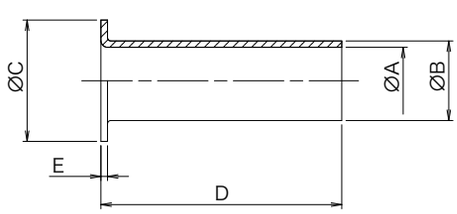



D/MS3057- □□ A(R1) is an accessory which is used together with a backshell to fasten the cable. The cable is fixed in the center of the cable clamp for sure since the cable is fixed from both directions with two pieces of the metal clamps and the screws. The jacketed cable can be used with this cable clamp as well because a rubber bushing shown on the table below is inserted.

| Part Number | Shell Size | A±0.7 | B±0.7 | C±0.4 | D | E | G±0.7 | V | Bushing Part Number |
|---|---|---|---|---|---|---|---|---|---|
| D/MS3057-4A(R1) | 10SL,12S | 20.6 | 20.6 | 9.0 | 7.9 | 5.59 | 22.2 | 5/8-24UNEF | AN3420-4(R1) |
| D/MS3057-6A(R1) | 14S | 22.2 | 24.6 | 9.0 | 11.2 | 7.92 | 27.0 | 3/4-20UNEF | AN3420-6(R1) |
| D/MS3057-8A(R1) | 16S,16 | 23.8 | 27.8 | 9.0 | 14.3 | 11.1 | 29.4 | 7/8-20UNEF | AN3420-8(R1) |
| D/MS3057-10A(R1) | 18 | 23.8 | 30.1 | 9.0 | 15.9 | 14.27 | 31.7 | 1-20UNEF | AN3420-10(R1) |
| D/MS3057-12A(R1) | 20,22 | 23.8 | 35.0 | 9.0 | 19.0 | 15.88 | 37.3 | 1 3/16-18UNEF | AN3420-12(R1) |
| D/MS3057-16A(R1) | 24,28 | 26.2 | 42.1 | 9.0 | 23.8 | 19.05 | 42.9 | 1 7/16-18UNEF | AN3420-16(R1) |
| D/MS3057-20A(R1) | 32 | 27.8 | 51.6 | 11.0 | 31.7 | 23.8 | 51.6 | 1 3/4-18UNS | AN3420-20(R1) |
| D/MS3057-24A(R1) | 36 | 29.4 | 56.4 | 10.5 | 34.9 | 31.75 | 58.0 | 2-18UNS | AN3420-24(R1) |

## Rubber Bushing

### AN3420- □□ (R1)




AN3420- □□ (R1) is an accessory which is designed to tighten the cable.
When you need thinner cable, you can duplicate or triplicate the rubber bushings.

| Part Number | ϕ A | ϕ B | ϕ C | D±1.2 | E |
|---|---|---|---|---|---|
| AN3420-4(R1) | 5.59 | 7.67 | 12.83 | 69.9 | 1.57 |
| AN3420-6(R1) | 7.92 | 10.85 | 15.72 | 66.7 | 1.57 |
| AN3420-8(R1) | 11.1 | 14.02 | 18.9 | 63.5 | 1.57 |
| AN3420-10(R1) | 14.27 | 15.62 | 22.58 | 60.3 | 1.57 |
| AN3420-12(R1) | 15.88 | 18.8 | 27.53 | 57.2 | 1.57 |
| AN3420-16(R1) | 19.05 | 23.55 | 33.38 | 54.0 | 1.57 |
| AN3420-20(R1) | 23.8 | 31.5 | 40.54 | 50.8 | 1.57 |
| AN3420-24(R1) | 31.75 | 34.67 | 46.91 | 47.6 | 1.57 |

◎ Specifications and/or dimensions in this catalog are subject to change without notice.
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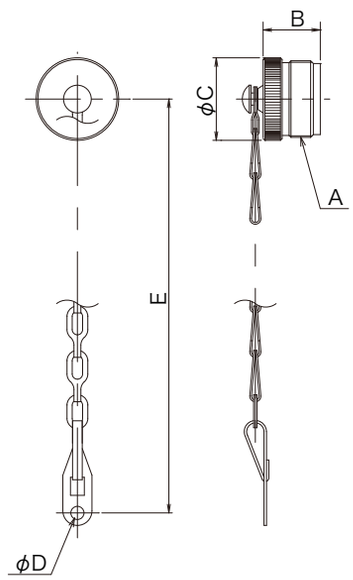
Unit : mm

## Cap and Chain for Plug

### D/MS25042- □□ DK



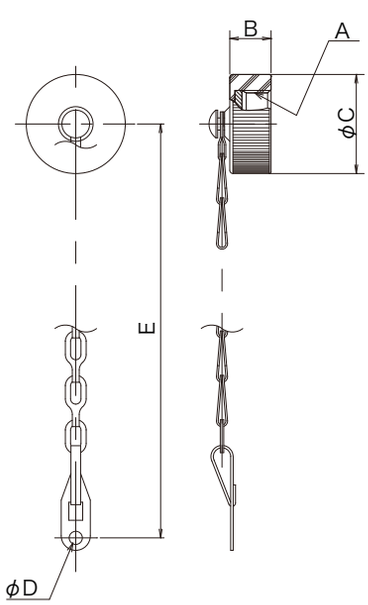

《Fastenning the cap and chain》

Fasten the chain hole"D" to the tightening screw of cable clamp or split back shell.

| Part Number | Applicable Shell Size | A | B max. | ϕ C max. | ϕ D±0.25 | (E) |
|---|---|---|---|---|---|---|
| D/MS25042-10DK | 10SL | 5/8-24UNEF | 16.66 | 17.45 | 3.8 | 177.8 |
| D/MS25042-12DK | 12S | 3/4-20UNEF | 21.44 | 20.62 | 3.8 | 177.8 |
| D/MS25042-14DK | 14S | 7/8-20UNEF | 21.44 | 23.80 | 3.8 | 177.8 |
| D/MS25042-16DK | 16S、16 | 1-20UNEF | 21.44 | 26.97 | 3.8 | 177.8 |
| D/MS25042-18DK | 18 | 1 1/8-18UNEF | 21.44 | 30.15 | 3.8 | 177.8 |
| D/MS25042-20DK | 20 | 1 1/4-18UNEF | 21.44 | 33.32 | 4.6 | 177.8 |
| D/MS25042-22DK | 22 | 1 3/8-18UNEF | 21.44 | 36.50 | 4.6 | 177.8 |
| D/MS25042-24DK | 24 | 1 1/2-18UNEF | 21.44 | 39.67 | 4.6 | 177.8 |
| D/MS25042-28DK | 28 | 1 3/4-18UNS | 21.44 | 46.02 | 4.6 | 177.8 |
| D/MS25042-32DK | 32 | 2-18UNS | 21.44 | 52.37 | 5.5 | 177.8 |
| D/MS25042-36DK | 36 | 2 1/4-16UN | 21.44 | 58.72 | 5.5 | 177.8 |

## Cap and Chain for Receptacle

### D/MS25043- □□ DK(R1)




《Fastenning the cap and chain》

Fasten the chain hole"D" to the mounting screw of receptacle.

| Part Number | Applicable Shell Size | A | B max. | ϕ C max. | ϕ D±0.25 | (E) |
|---|---|---|---|---|---|---|
| D/MS25043-10DK(R1) | 10SL | 5/8-24UNEF | 11.91 | 20.70 | 3.8 | 177.8 |
| D/MS25043-12DK(R1) | 12S | 3/4-20UNEF | 11.91 | 25.40 | 3.8 | 177.8 |
| D/MS25043-14DK(R1) | 14S | 7/8-20UNEF | 11.91 | 28.58 | 3.8 | 177.8 |
| D/MS25043-16DK(R1) | 16S、16 | 1-20UNEF | 11.91 | 30.18 | 3.8 | 177.8 |
| D/MS25043-18DK(R1) | 18 | 1 1/8-18UNEF | 11.91 | 34.13 | 3.8 | 177.8 |
| D/MS25043-20DK(R1) | 20 | 1 1/4-18UNEF | 11.91 | 37.31 | 3.8 | 177.8 |
| D/MS25043-22DK(R1) | 22 | 1 3/8-18UNEF | 11.91 | 40.49 | 3.8 | 177.8 |
| D/MS25043-24DK(R1) | 24 | 1 1/2-18UNEF | 11.91 | 43.66 | 4.6 | 177.8 |
| D/MS25043-28DK(R1) | 28 | 1 3/4-18UNS | 13.49 | 50.01 | 4.6 | 177.8 |
| D/MS25043-32DK(R1) | 32 | 2-18UNS | 13.49 | 56.36 | 4.6 | 177.8 |
| D/MS25043-36DK(R1) | 36 | 2 1/4-16UN | 13.49 | 62.71 | 4.6 | 177.8 |

A cap and chain is designed to cover the mating face from dust to avoid electrical trouble.

The moistureproof gasket is attached to the cap and chain (D/MS25043- □□ DK(R1)) .

(Note) When using the smaller shell size less than 22 of cable receptacle(D/MS3101A),
the chain can not be fasten to the cable clamp.

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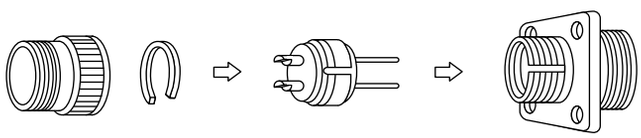
# ASSEMBLY INSTRUCTION

How to Assemble the Connectors

1. D/MS3100A, D/MS3101A, D/MS3102A

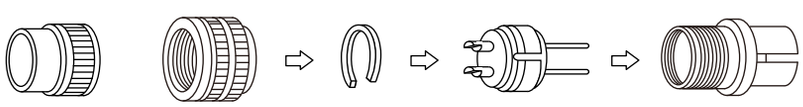
Firstly insert the insert assembly with the contacts into the shell after matching the key of the receptacle shell with the key groove of the insert assembly. Secondly install the retaining ring into the retaining ring groove of the receptacle shell. After installing the retaining ring, make sure that the outer circumference of the retaining ring is fixed firmly in the groove of the shell over the entire circumference. In case the retaining ring is not fixed precisely, the retaining ring may come off from the shell by the force of mating the connectors. Finally, install the backshell to the cable side of the receptacle shell for D/MS3100A and D/MS3101A.



↑ Backshell ↑ Retaining Ring ↑ Insert Assembly ↑ Receptacle Shell

2. D/MS3106A

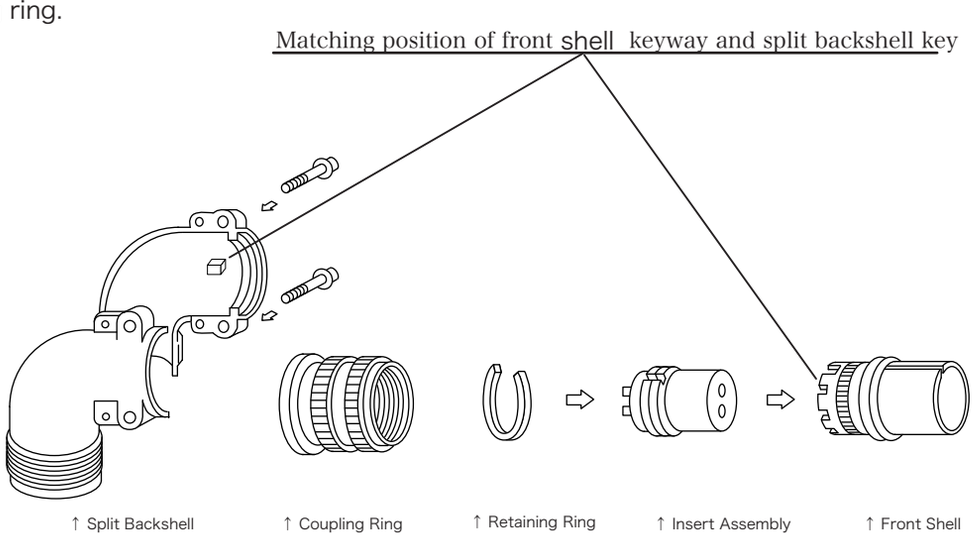
Firstly insert the insert assembly into the front shell. Secondly install the retaining ring into the front shell. Thirdly, install the coupling ring. Finally, install the backshell to the cable side of the front shell. Do the same way as the above position 1 regarding how to install the insert assembly and the retaining ring.



↑ Backshell ↑ Coupling Ring ↑ Retaining Ring ↑ Insert Assembly ↑ Front Shell

3. D/MS3106B, D/MS3108B

Firstly insert the insert assembly into the front shell. Secondly install the retaining ring into the front shell. Thirdly, install the coupling ring. Finally, install the split backshells to the cable side of the front shell. Tighten the screws after making sure that the keyways of the front shell and the keys of the backshells are on the same line when installing the backshells, otherwise the backshells might be damaged. Do the same way as the above position 1 regarding how to install the insert assembly and the retaining ring.




↑ Split Backshell ↑ Coupling Ring ↑ Retaining Ring ↑ Insert Assembly ↑ Front Shell

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## ▶WIRING INSTRUCTION

** Soldering

Pre-solder the solder cups before you solder the wire.

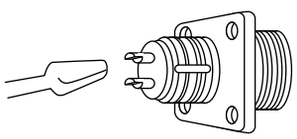
Solder the wire quickly to prevent the flux and the solder from flowing out of the solder cups.

** How to remove the retaining ring

Insert the thin tip such like that of a screwdriver into the notch of the shell. Remove the retaining ring carefully with it so as for the ring not to pop out while you put the finger on it lightly.

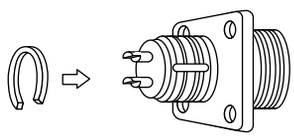
** How to install the retaining ring

Insert one end of the retaining ring into the groove of the shell. Then push the other end of the retaining ring into the groove of the shell by the tip such like that of a screwdriver while you compress the ring slightly.



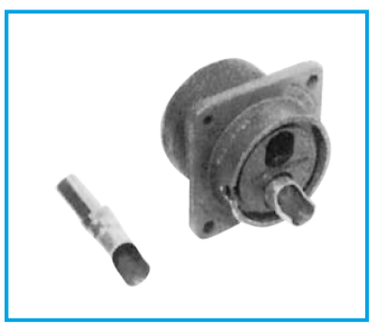
↑ Receptacle Shell

Remove the retaining ring.



↑ Retaining Ring ↑ Receptacle Shell

Fasten the retaining ring.



〈How to wire connector〉

Regarding the connectors which have backshells, D/MS3100A, D/MS3101A, D/MS3106A, D/MS3106B and D/MS3108B types, refer to diagram on the page 17. Remove the backshell and the coupling ring. Thread the cable into the backshell and the cable clamp before soldering.

After the soldering, screw the dackshell frist and the cable clamp secondly. Be careful to tighten the screws of the cable clamp not to press the soldering contacts .

When the cable is too thin to fasten tightly, duplicate or triplicate the rubber bushing, AN3420-□□.

〈Soldering thick contacts〉

Since #0, #4 and #8 sizes contacts take longer time to solder,the insert assembly which made of resin may be damaged by high temperature.

To avoid this trouble, we recommend that the contacts be removed from the insert assembly and solder each contacts. Firstly, remove the retaining ring and pull out the insert assembly from the shell. Secondly, float the rear insert to pull out a contact with rotating it by hand.

On inserting the contacts, do it reverse order.

※ Caution

When you check the electrical continuity, use a mating half connector.

In case of mating other conductors such as a clip it causes the trouble surface finish, retaining tension, and deteriorate.

◎ Specifications and/or dimensions in this catalog are subject to change without notice.
Your checking the latest specifications with our drawings would be highly appreciated.