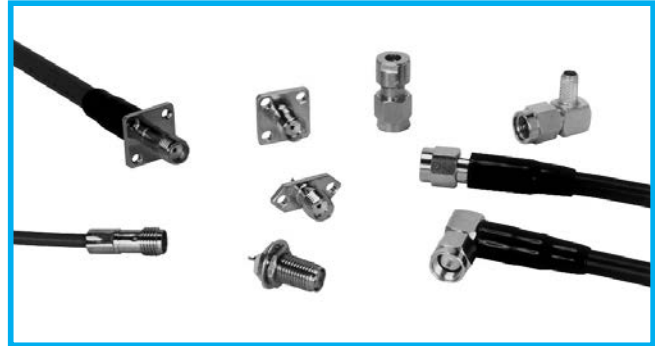


SMA Style Coaxial Connector

DM Series



Characteristic Impedance

50 Ω

Lock Type

Screw

OUTLINE

DM series is a SMA connector which conforms to MIL-PRF-39012. It is compact and tough 50 Ω coaxial connector which designed for compact-sized and higher frequency communication device. Screw lock coupling enables reliable connection. Compatible to other SMA style connectors. Crimp, soldering and clamp types are available.

APPLICATIONS

Base Station, Telecom, Wireless LAN, GPS

CONFORMING STANDARD

MIL-PRF-39012

SPECIFICATIONS

| | |
|---------------------------------|-------------------------------|
| Characteristic Impedance | 50 Ω |
| Rated Voltage | 500V AC |
| Dielectric Withstanding Voltage | 1,000V AC(r.m.s.) for1 minute |
| Insulation Resistance | 1,000M Ω Mim. at 500V DC |
| Contact Resistance | 3m Ω Max. |
| V.S.W.R. | 1.05 + 0.01 x f (GHz) |
| Operating Temperature | -55 ~ +85°C |

* The specifications are typical but may not apply to all connectors. Please check the specifications on each item with its drawing from us when you use.

MATERIAL/FINISH



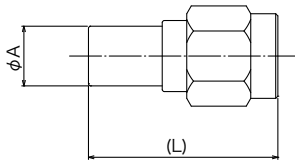
| Item | Material / Finish |
|---------------|--|
| Shell (Body) | Copper Alloy or Stainless Steel / Au, Ag or Ni Plating |
| Coupling Ring | Copper Alloy or Stainless Steel / Au, Ag or Ni Plating |
| Contact | Copper Alloy / Au or Ag Plating |
| Insulator | PTFE |

- ※ We are providing the standard item on this catalogue. Other material(Brass, Stainless steel) are also available. Please contact our sale office.
- ※ Notice for mating connectors
When screwng up the coupling ring, please screw up by hand and tighten by toque wrench.

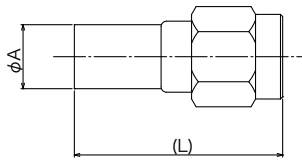
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▶ Straight Plug Connector

Crimp Type

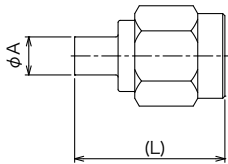


| Part Number | Applicable Cable Size | φ A | (L) | Finish | | | Assembly Instruction | Crimp Tool |
|---------------------|-------------------------------------|------|------|-----------------|------------------|----------|----------------------|------------|
| | | | | Outer Conductor | Center Conductor | Coupling | | |
| DM-SP-1.5DHQS-CR1-2 | 1.5D-2V, 1.5D-2W 1.5D-HQ · SUPER | 4.8 | 19.3 | Ni | Au | Ni | 1 | CR-H-1156A |
| DM-P-58U-CR-BS-CF | RG-58A/U | 6.25 | 24.4 | Au | Au | Au | 2 | CR-H-1105 |

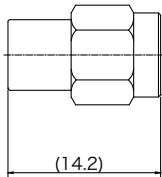


| Part Number | Applicable Cable Size | φ A | (L) | Finish | | | Assembly Instruction | Crimp Tool |
|----------------------|-----------------------|-----|------|-----------------|------------------|-------------|----------------------|------------|
| | | | | Outer Conductor | Center Conductor | Coupling | | |
| DM-SP-2.5DHQS-CR1-1 | 2.5D-HQ · SUPER | 5.9 | 18.9 | Ni | Au | Ni | 4 | CR-H-1163 |
| ☆ DM-SP-2.5DW-CR1-CF | 2.5D-2W | 5.9 | 18.8 | Passivation | Au | Passivation | 5 | CR-H-1163 |
| DM-P-3DW-CR-CF | 3D-2W | 7.6 | 24.2 | Au | Au | Au | 6 | CR-H-18923 |

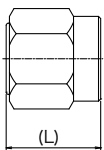
for Semi-Rigid, Semi-Flexible Cable



| Part Number | Applicable Cable Size | φ A | (L) | Finish | | | Assembly Instruction |
|--------------------|-----------------------|-----|------|-----------------|------------------|----------|----------------------|
| | | | | Outer Conductor | Center Conductor | Coupling | |
| DM-P-85-SO-BS-2-CF | UT-85 | 3.5 | 13.7 | Ni | Au | Ni | |
| | FCCAUG1 | | | | | | |



| Part Number | Applicable Cable Size | Outer Conductor | Center Conductor | Coupling | Assembly Instruction |
|----------------------|-----------------------------------|-----------------|------------------|----------|----------------------|
| | | | | | |
| DM-SP-141-SO-2-D3-CF | UF-141A FCCAUG0 FCCAUGO-4.6 | Ag | Ni | | |



| Part Number | Applicable Cable Size | (L) | Finish | | | Assembly Instruction |
|-------------------|-----------------------|-----|-----------------|--|----------|----------------------|
| | | | Outer Conductor | Center Conductor | Coupling | |
| DM-P-141-SO-D1-CF | UT-141A | 8.7 | Au | Utilize center conductor of the applicable cable | Ni | |
| | FCCAUG0 | | | | | |

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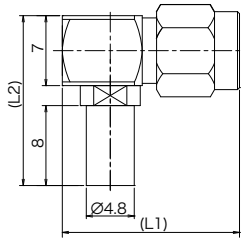
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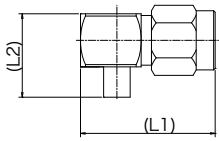
▶ Right Angle Plug Connector

Crimp Type



| Part Number | Applicable Cable Size | (L1) | (L2) | Finish | | | Assembly Instruction | Crimp Tool |
|------------------------|-------------------------------------|------|------|-----------------|------------------|----------|----------------------|------------|
| | | | | Outer Conductor | Center Conductor | Coupling | | |
| DM-LP-1.5DHQS-CR1 | 1.5D-2V, 1.5D-2W 1.5D-HQ · SUPER | 17.8 | 17.0 | Ni | Au | Ni | 7 | CR-H-1156A |
| DM-LP-2.5DHQS-CR1-2-CF | 2.5D-HQ · SUPER | 17.8 | 17.0 | Ni | Au | Ni | 8 | CR-H-1163 |
| DM-LP-3D2W-CR1-CF | 3D-2W | 18.8 | 21.2 | Ni | Au | Ni | 9 | CR-H-18923 |

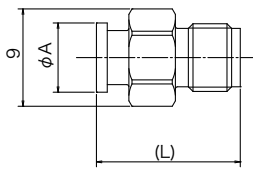
for Semi-Rigid, Semi-Flexible Cable



| Part Number | Applicable Cable Size | (L1) | (L2) | Finish | | | Assembly Instruction |
|----------------------|-----------------------|------|------|-----------------|------------------|----------|----------------------|
| | | | | Outer Conductor | Center Conductor | Coupling | |
| DM-LP-85-SO-4-CF | UT-85 | 18.0 | 11.0 | Ni | Au | Ni | |
| | FCCA VG1 | | | | | | |
| DM-LP-141-SO-4-D1-CF | UT-141A | 19.0 | 11.4 | Ni | Au | Ni | |
| | FCCA VG0 | | | | | | |

▶ Jack Connector

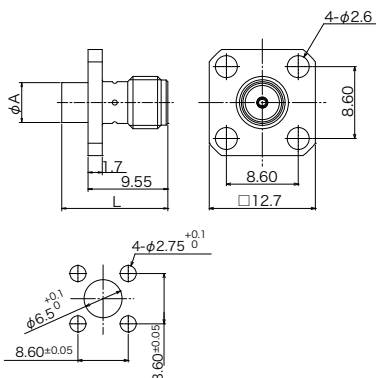
for Semi-Rigid, Semi-Flexible Cable



| Part Number | Applicable Connector | φ A | L | Finish | | Assembly Instruction |
|-------------------|----------------------|-----|------|-----------------|------------------|----------------------|
| | | | | Outer Conductor | Center Conductor | |
| DM-SJ-141-SO-1-CF | UT-141A | 6.4 | 13.3 | Ag | Ag | |
| | FCCA VG0 | | | | | |
| DM-SJ-85-SO-CF | UT-85 | 4.0 | 12.5 | Ni | Au | |
| | FCCA VG1 | | | | | |

▶ Panel Jack Connector

for Semi-Rigid, Semi-Flexible Cable



| Part Number | Applicable Cable Size | φ A | L | Finish | | Assembly Instruction |
|--------------------|-----------------------|-----|------|-----------------|------------------|----------------------|
| | | | | Outer Conductor | Center Conductor | |
| DM-PJ-141-SO-DI | UT-141A | 4.7 | 12.7 | Ni | Au | |
| | FCCA VG0 | | | | | |
| DM-PJ-141-SO-D3-CF | UT-141A | 4.7 | 12.7 | Ni | Au | |
| | FCCA VG0 | | | | | |
| ☆ DM-PJ-85-SO-D3 | UT-85 | 3.4 | 12.7 | Ni | Au | |
| | FCCA VG1 | | | | | |

PCB Mounting Dimensions

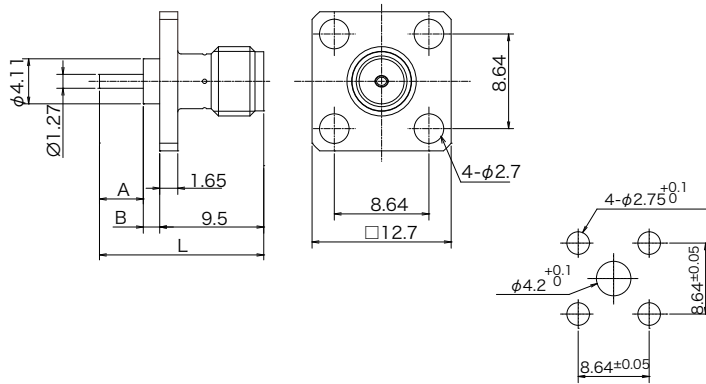
◎ Please acknowledge that the specification etc. of this catalog might change by the improvement etc. without notice.

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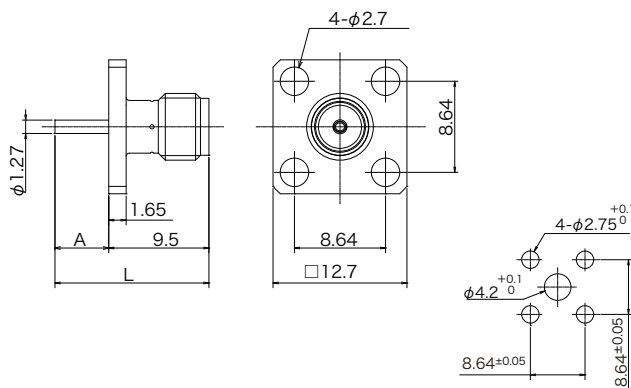
<https://www.connector.fujikura.com>

▶ Receptacle Connector



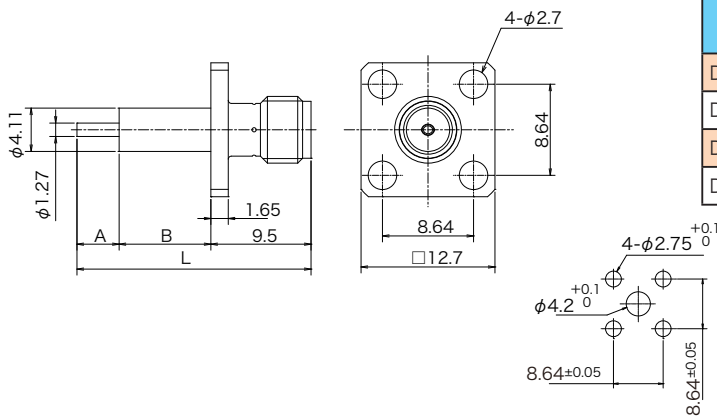
| Part Number | A | B | L | Finish | |
|-------------|-----|-----|------|-----------------|------------------|
| | | | | Outer Conductor | Center Conductor |
| DM-SR-18-CF | 4.0 | 1.5 | 15.0 | Ag | Ag |
| DM-SR-20-CF | 6.0 | 1.0 | 16.5 | Ag | Ag |
| DM-SR-27-CF | 5.0 | 1.0 | 15.5 | Ag | Ag |

PCB Mounting Dimensions



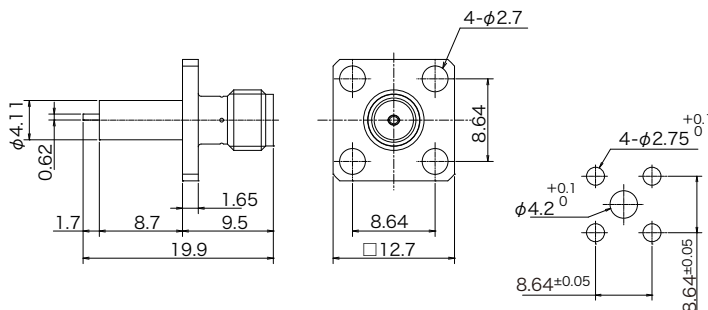
| Part Number | A | L | Finish | |
|-------------|-----|------|-----------------|------------------|
| | | | Outer Conductor | Center Conductor |
| DM-SR-23-CF | 5.1 | 14.6 | Ag | Ag |
| DM-SR-28-CF | 6.0 | 15.5 | Ag | Ag |
| DM-SR-31-CF | 3.0 | 12.5 | Ag | Ag |

PCB Mounting Dimensions



| Part Number | A | B | L | Finish | |
|-------------|-----|-----|------|-----------------|------------------|
| | | | | Outer Conductor | Center Conductor |
| DM-SR-1 | 2.0 | 4.0 | 15.5 | Passivation | Au |
| DM-SR-15-CF | 4.0 | 8.7 | 22.2 | Ag | Ag |
| DM-SR-24-CF | 5.0 | 6.5 | 21.0 | Ag | Ag |
| DM-SR-30-CF | 4.0 | 6.5 | 20.0 | Ag | Ag |

PCB Mounting Dimensions

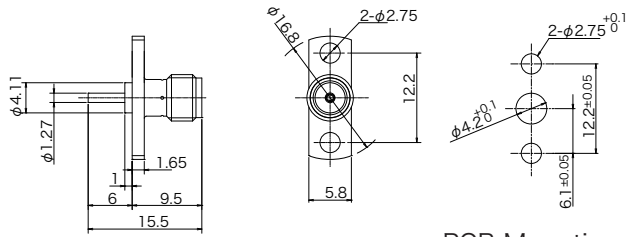


| Part Number | Finish | |
|-------------|-----------------|------------------|
| | Outer Conductor | Center Conductor |
| DM-SR-19-CF | Ag | Ag |

PCB Mounting Dimensions

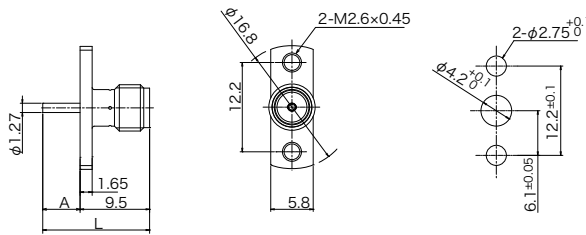
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▶ Receptacle Connector



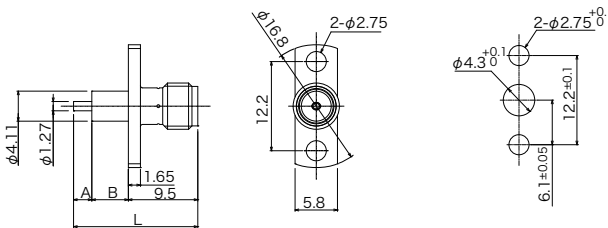
PCB Mounting Dimensions

| Part Number | Finish | |
|--------------|-----------------|------------------|
| | Outer Conductor | Center Conductor |
| DM-SR2-18-CF | Ag | Ag |



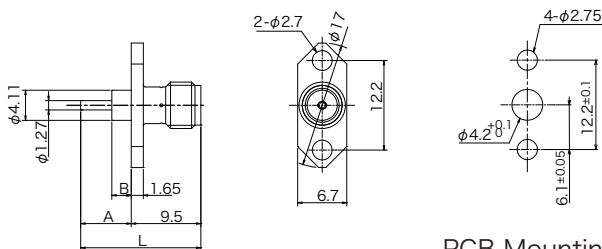
PCB Mounting Dimensions

| Part Number | A | L | Finish | |
|----------------|-----|------|-----------------|------------------|
| | | | Outer Conductor | Center Conductor |
| DM-SR2-1-CF | 5.1 | 14.6 | Ag | Ag |
| DM-SR2-1-D1-CF | 5.1 | 14.6 | Au | Au |
| DM-SR2-22-CF | 3.1 | 12.6 | Ag | Ag |



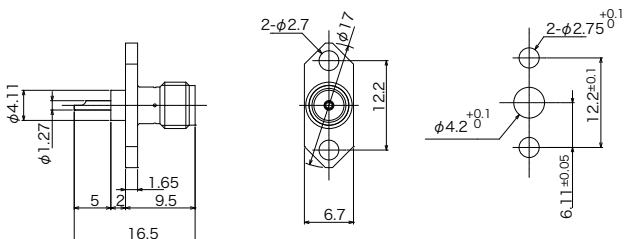
PCB Mounting Dimensions

| Part Number | A | B | L | Finish | |
|----------------|-----|-----|------|-----------------|------------------|
| | | | | Outer Conductor | Center Conductor |
| DM-SR2-4-CF | 2.5 | 5.0 | 17.0 | Ni | Au |
| DM-SR2-8-CF | 4.0 | 5.5 | 19.0 | Ni | Au |
| DM-SR2-8-D1-CF | 4.0 | 5.5 | 19.0 | Au | Au |
| DM-SR2-9-CF | 1.5 | 4.0 | 15.0 | Ag | Ag |
| DM-SR2-15-CF | 1.5 | 3.2 | 14.2 | Ni | Au |



PCB Mounting Dimensions

| Part Number | A | B | L | Finish | |
|--------------|-----|-----|------|-----------------|------------------|
| | | | | Outer Conductor | Center Conductor |
| DM-SR2-10-CF | 6.9 | 2.9 | 16.4 | Ag | Ag |
| DM-SR2-11-CF | 4.4 | 2.9 | 13.9 | Ag | Ag |

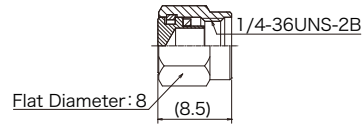


PCB Mounting Dimensions

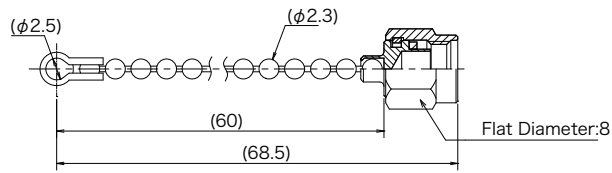
| Part Number | Finish | |
|--------------|-----------------|------------------|
| | Outer Conductor | Center Conductor |
| DM-SR2-16-CF | Ni | Au |

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▶ Dust Cap



| Part Number | Contact Plating |
|-------------|-----------------|
| DM-RC-1-CF | Ni |

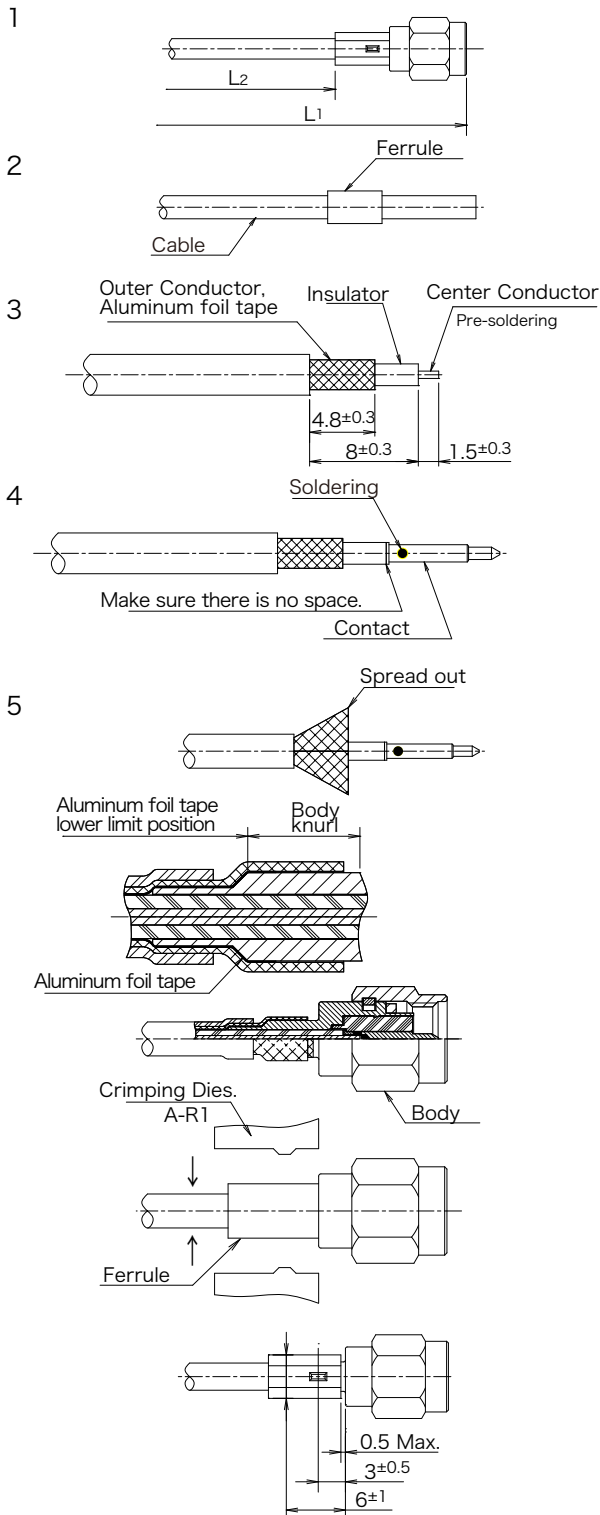
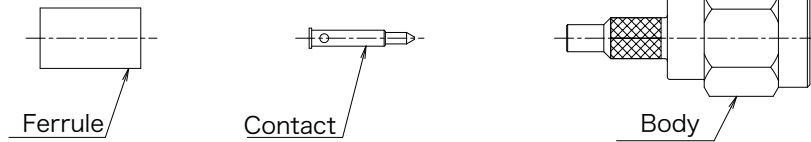


| Part Number | Contact Plating |
|-------------|-----------------|
| DM-RC-2-CF | Ni |

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▶ Assembly Instruction (1)

Parts Configuration



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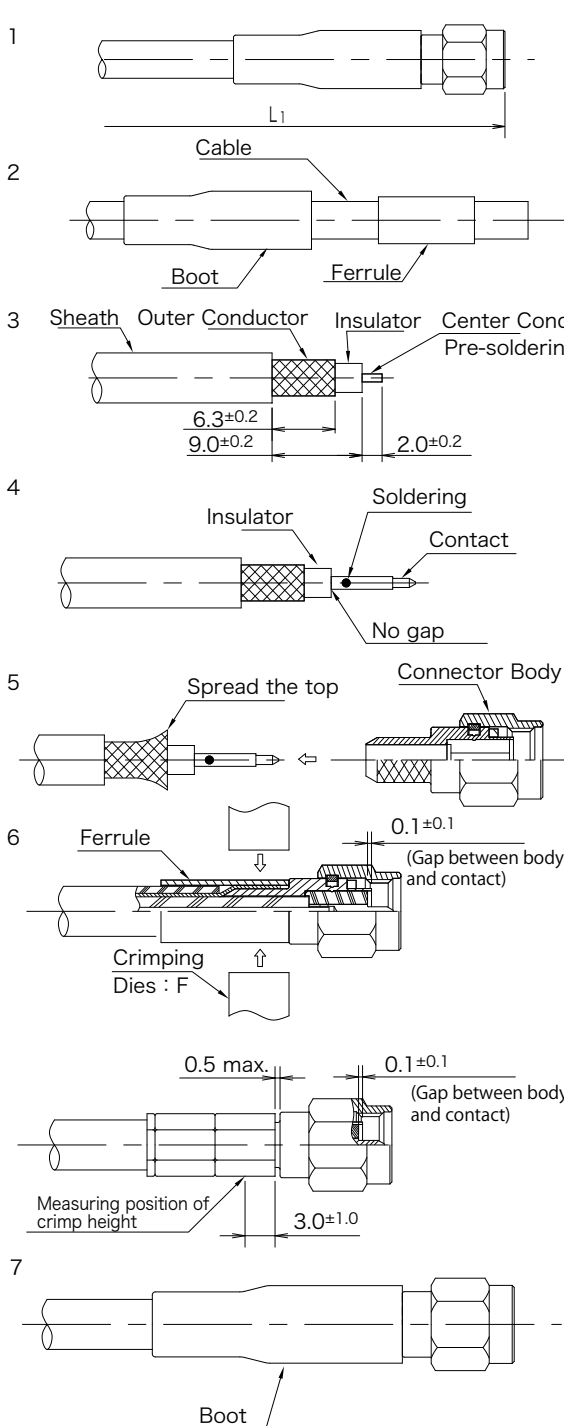
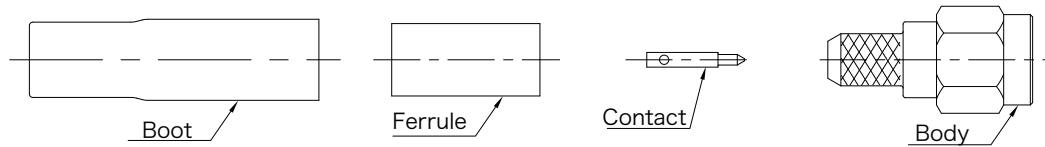
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<https://www.connector.fujikura.com>

▶ Assembly Insutrcution (2)

Parts Configuration



1. The cable length require for the cable assembly
 $L = L_1 - 7.1$

2. Insert the boot and ferule into the cable.

3. Cut the cable as fig.3.

(Note) Please be careful to not damage the outer conductor , insulator and center conductor.

3-1. Pre-solder the center conductor.

(Note) Please be careful to not deform the insulator by heat

4. Solder up the contact and center conductor.

(Note) Please be careful to not deform the insulator by heat.

(Note) No gap between contact and insulator.

(Note) When the solder is stick out, please shave the extra solder.

5. Spread the top of the outer conductor.

5-1. Insert the root of connector body between outer conductor and insulator.

(Note) Please do not pick the outer conductor.

6. Insert the connector body until the gap between body and contact is within 0.1 ± 0.1 .

6-1. Cover the ferule on the outer conductor and insert the cable until strike the top of the cable.

6-2. While the cable is touch the connector body, crimp the ferule two points. Crimping Dies : F

(Note) Crimp point is nearest to the body first.

(Note) The gap between body and ferule is within 0.5.

(Note) Crimp height is 5.38 ~ 5.56.

(Note) The gap between body and contact is within 0.1 ± 0.1 .

7. Cover the boot on the ferule.

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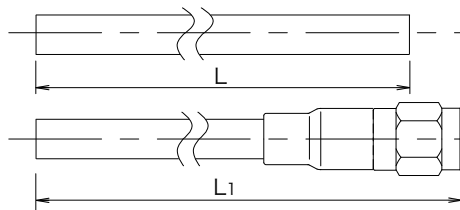
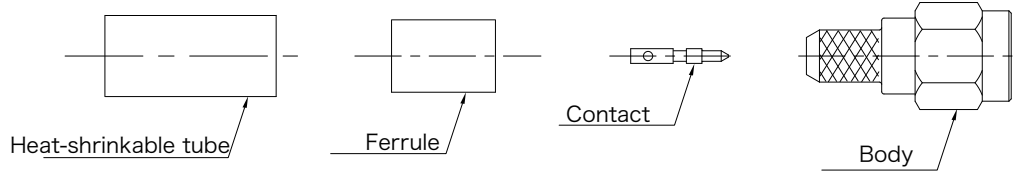
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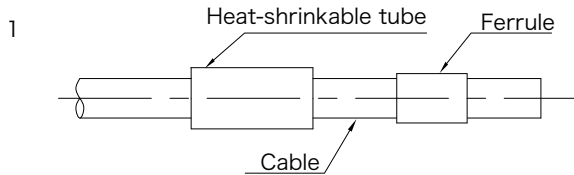
<https://www.connector.fujikura.com>

▶ Assembly Instruction (3)

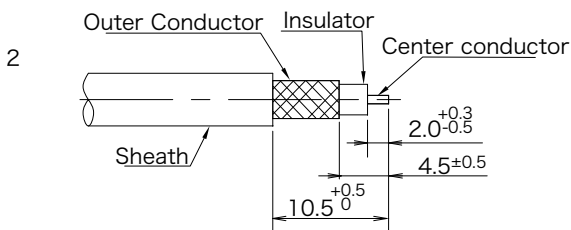
Parts Configuration



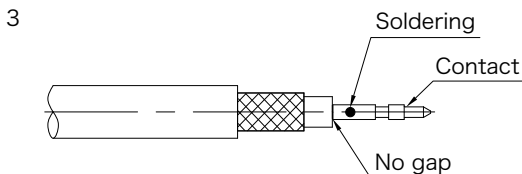
The cable length require for the cable assembly
 $L = L1 + 6$



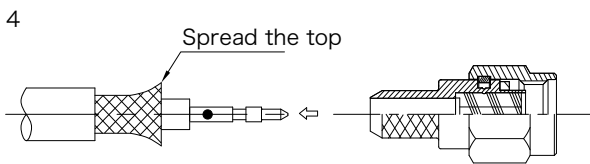
1. Insert the boot and ferrule into the cable.



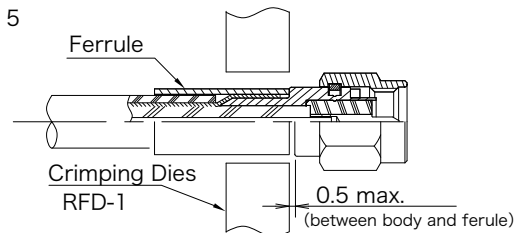
2. Cut the cable as fig..2.
 Pre-soldering to the center conductor of the cable.
 (Note) Please be careful to not damage outer conductor, insulator and center conductor.



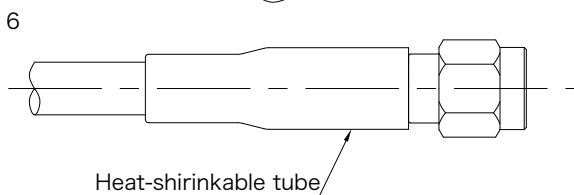
3. Solder up the contact with center conductor.
 (Note) When the solder is stick out, please shave the extra solder.
 (Note) No gap between contact and insulator.



4. Spread the top of the outer conductor.
 Insert the root of connector body between outer conductor and insulator.



5. Cover the ferrule on the naked outer conductor and crimp.

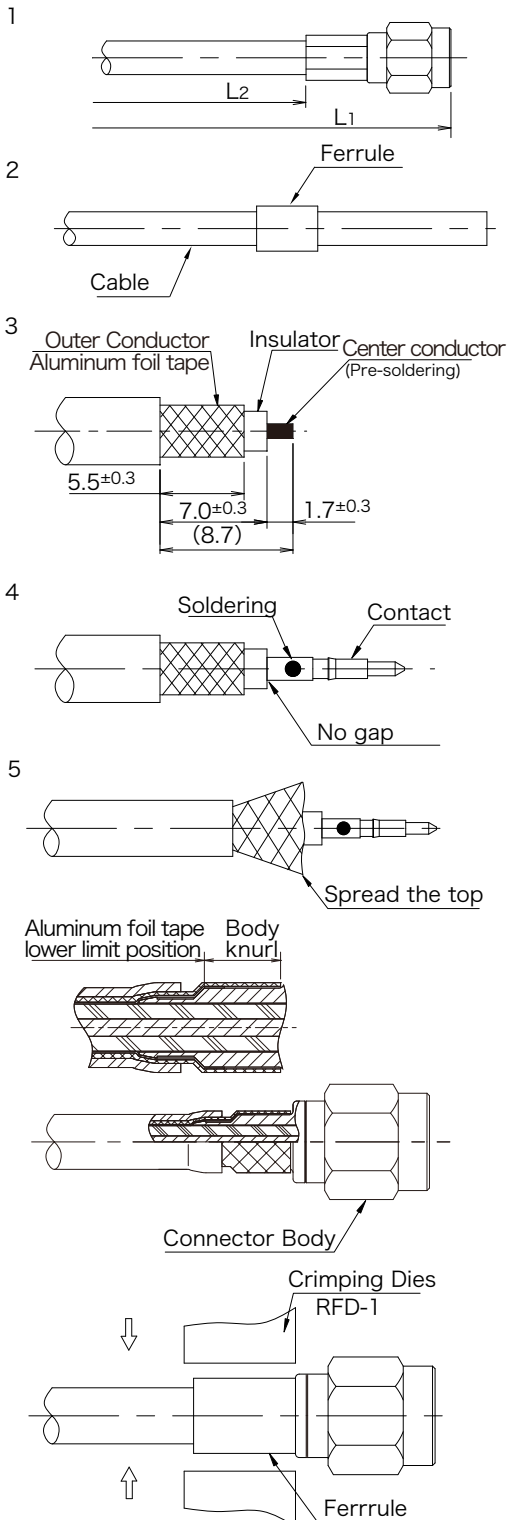
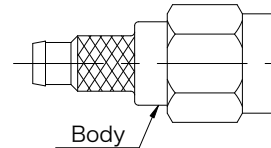
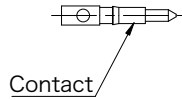
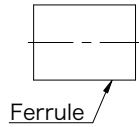


6. Cover the heat-shrinkable tube on the ferrule and heat up the tube.

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▶ Assembly Instruction (4)

Parts Configuration



1. The cable length require for the cable assembly.

$$L=L1 - 8$$

$$=L2 + 11$$

2. Insert the ferrule into the cable.

3. Cut the cable as fig.2.

(Note) Please be careful to not damage the center conductor and outer conductor.

3-1. Pre-solder the center conductor.

(Note) Please be careful to not deform the insulator by heat

4. Solder up the contact with center conductor.

(Note) Don't melt to the insulator by supplying excessive heat.

(Note) No gap between contact and insulator.

(Note) If it get solder on outside surface of Contact, remove solder

5. Spread the top of the outer conductor.

5-1. Insert the body into the cable between outer conductor and aluminum foil tape.

(Note) Ride aluminum foil tape on Body outer dimension.

(Note) At least,ride a part of aluminum foil tape on body knurl.

But ferrule of Step5-2 should entry easily.

5-2. Slide ferrule on outer conductor until shall butt body and crimp ferrule

(Note) The gap between body and ferrule is within 0.5.

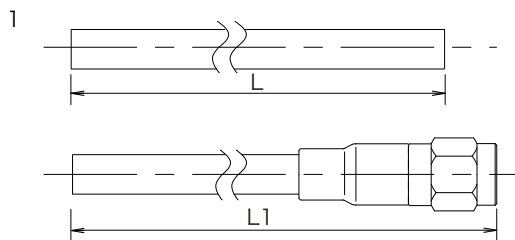
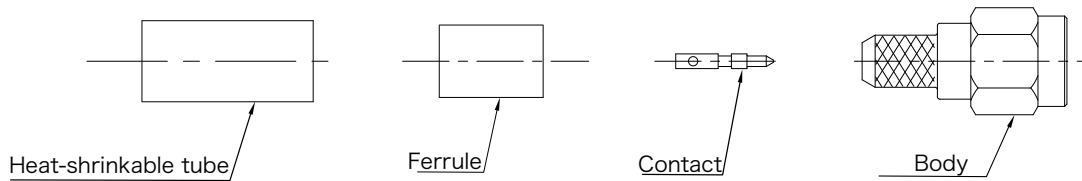
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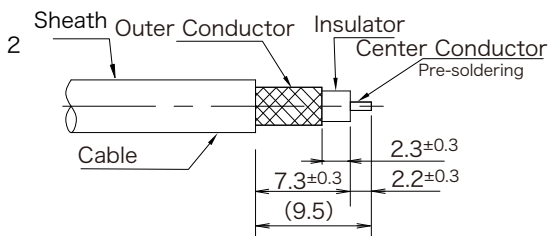
Please confirm the content with the latest delivery specifications when you use the product.

▶ Assembly Instruction (5)

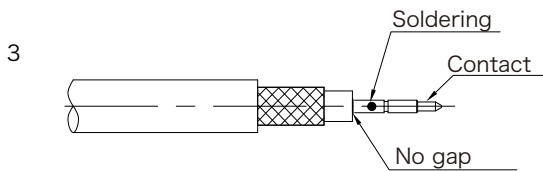
Parts Configuration



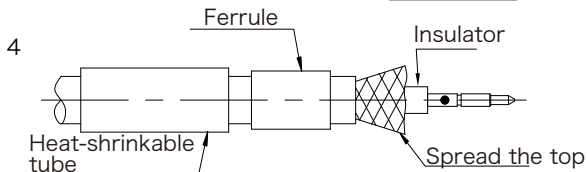
1. The cable length require for the cable assembly.
 $L = L1 - 7.0$



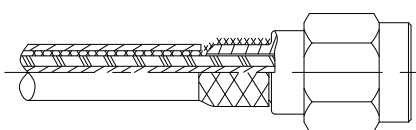
2. Cut the cable as fig.2.
 (Note) Please be careful to not damage the outer conductor, insulator and center conductor.
 2-1. Pre-soldering the center conductor.
 (Note) Please be careful to not deform the insulator by heat



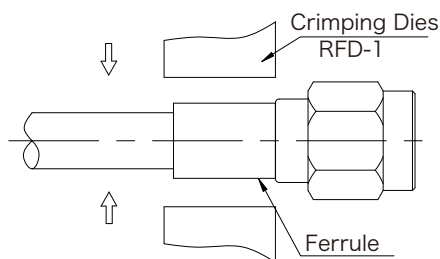
3. Solder up the contact with center conductor.
 (Note) Please be careful to not deform the insulator by heat.



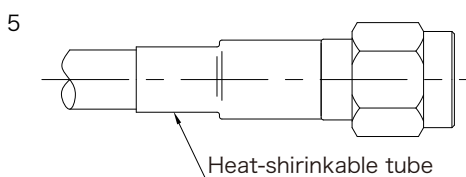
- (Note) No gap between contact and insulator.
 (Note) When the solder is stick out, please shave the extra solder.



- 4-1. Spread the top of outer conductor.
 4-2. Insert the body into the cable between outer conductor and aluminum foil tape.
 4-3. At least,ride a part of aluminum foil tape on body knurl.



- 4-4. Crimp the ferrule. (Crimping Dies : RFD-1)
 (Note) The gap between connector body and ferrule is within 0.5.



5. Cover the heat-shrinkable tube on the root of the connector body and heat up the tube.

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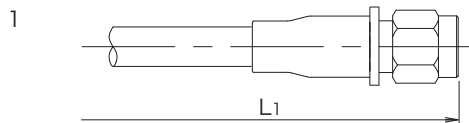
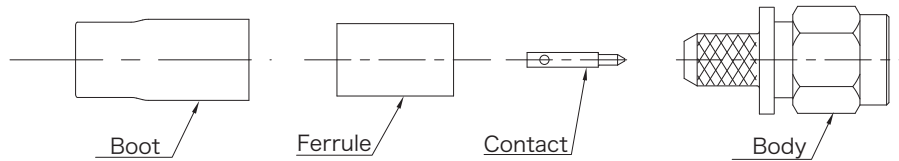
Moreover, the characteristic and the specification of the published product are the reference values.

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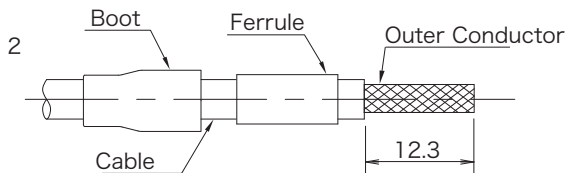
<https://www.connector.fujikura.com>

▶ Assembly Instruction (6)

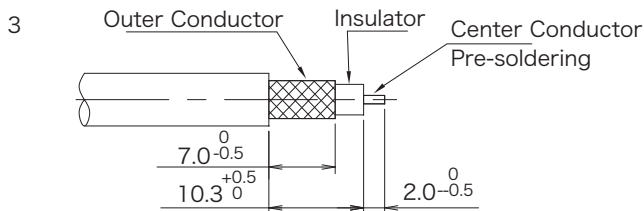
Parts Configuration



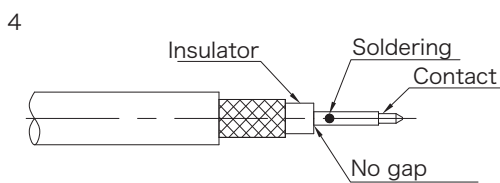
1. The cable length require for the cable assembly.
 $L = L1 - 7.2\text{mm}$



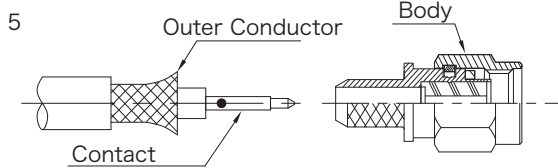
2. Insert the boot and ferrule into the cable and strip the sheath as fig.2.



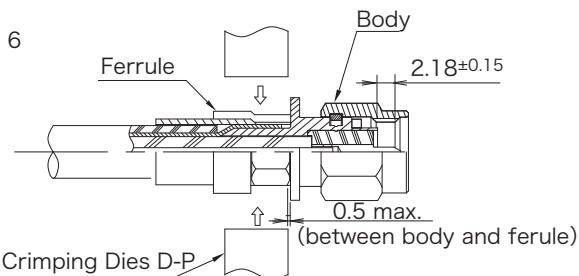
3. Cut the outer conductor, insulator and center conductor as fig.3.
 And pre-solder the center conductor.



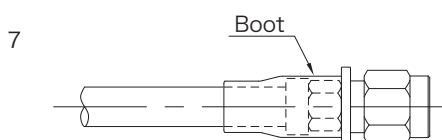
4. Solder up the contact with the center conductor.
 (Note) No gap between contact and insulator.
 (Note) When the solder is stick out, please shave the extra solder.



5. Spread the outer conductor and insert into the connector body.



6. Cover the ferrule on the naked outer conductor and crimp. (Crimping Dies : D-P)



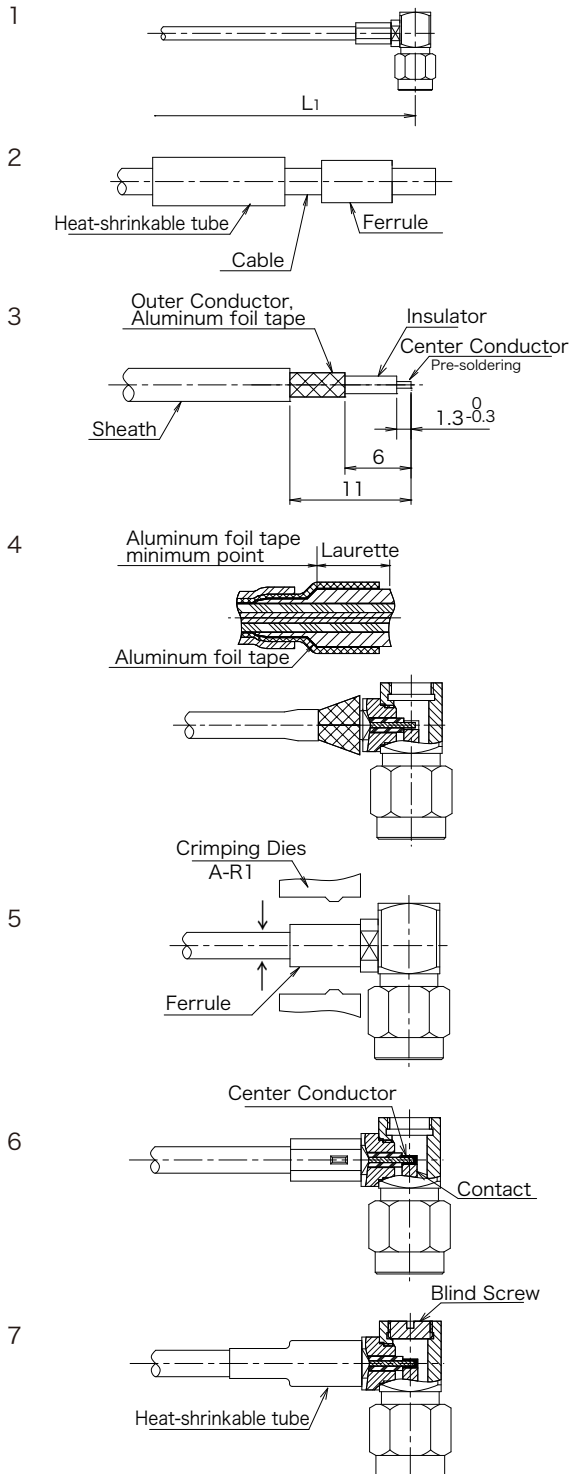
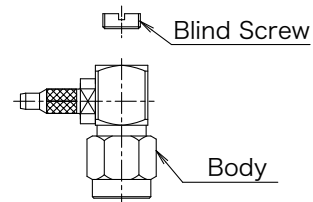
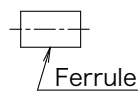
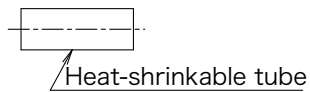
7. Cover the boot on the root of the connector body.

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▶ Assembly Instruction (7)

Parts Configuration



1. The cable length require for the cable assembly.
 $L=L_1+0.5$ (mm)

2. Heat-shrinkable tube and ferrule into the cable.
 fig.2.

3. Cut the cable as fig.3.

(Note) Please be careful to not damage the outer conductor, insulator and center conductor.

3-1. Pre-soldering the center conductor.

(Note) Please be careful to not deform the insulator by heat

4. Spread the top of the outer conductor.

4-1. (Note) At least,ride apart of aluminum foil tape on Body knurl.

But Ferrule of Step5-1 should entry easily.

(Note) The center conductor is caught in the contact slit enough.

5. Cover the ferrule on the naked outer conductor.

5-1. Crimp the ferrule. (Crimping Dies : A-R1)

(Note) The gap between body and ferrule is within 0.5.

6. Solder the contact with center conductor.

7. Screw up the blind screw on the body.Screw torque
 $9.8N \cdot cm$ (1Kgf · cm)

7-1.Cover the heat-shrinkable tube on the root of the connector body and heat up the tube.

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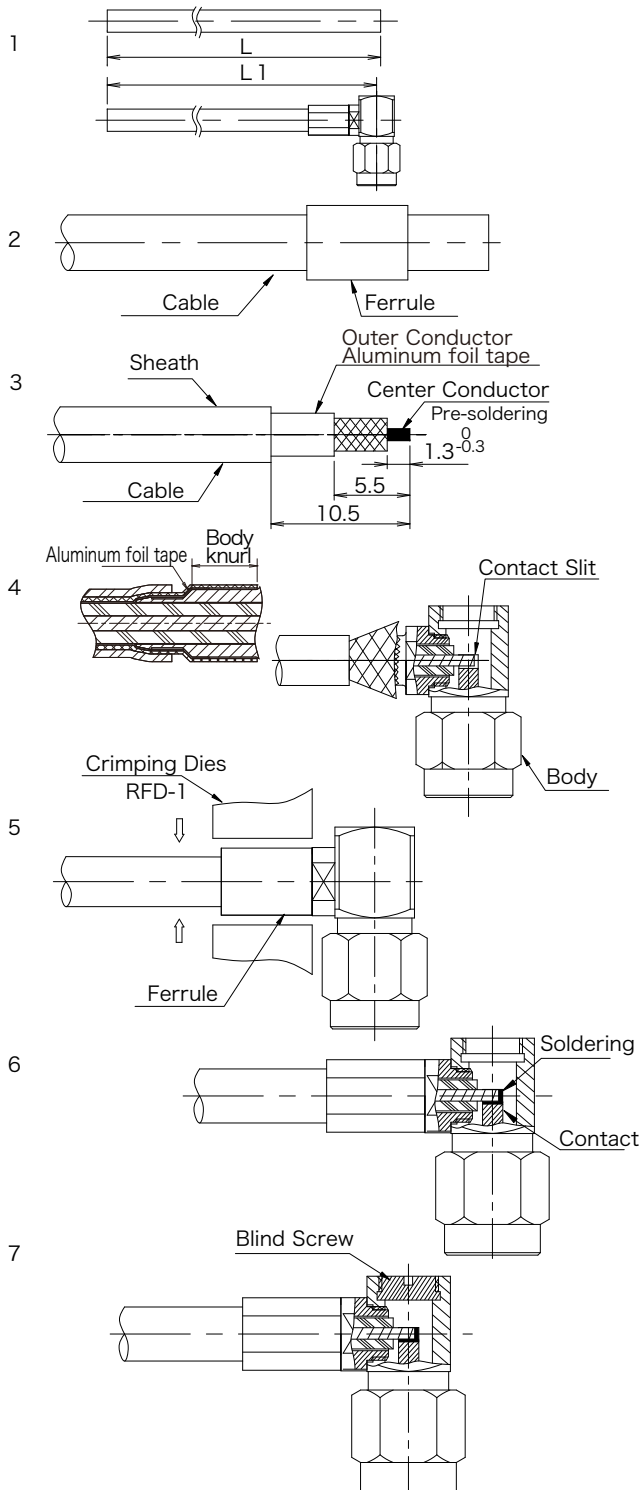
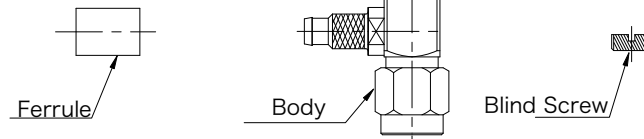
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▶ Assembly Instruction (8)

Parts Configuration



1. The cable length require for the cable assembly.
 $L=L1+0.5$

2. Cut the cable as fig.2.
 (Note) Please be careful to not damage the outer conductor and center conductor.
 2-1. Pre-solder the center conductor.

3. Insert the ferule into the cable.

4. Spread the top of the outer conductor.
 4-1. Insert the body into the cable between outer conductor and aluminum foil tape.
 (Note) Center conductor is caught in the contact slit enough.
 (Note) Aluminum foil tape is inserted in the body.

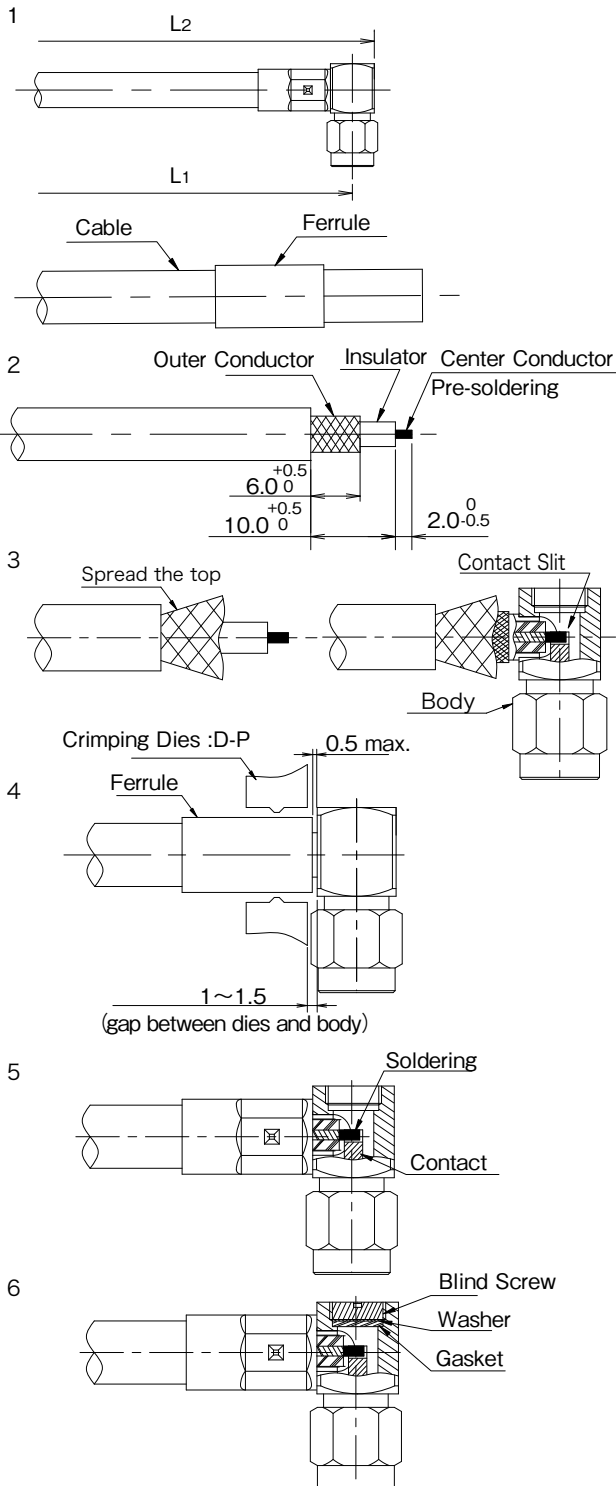
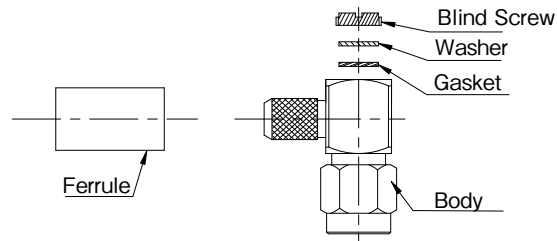
5. Cover the ferule on the naked outer conductor.
 5-1. Crimp the ferule. (Crimping Dies : RFD-1)
 (Note) The gap between body and ferule is within 0.5.

6. Solder the contact with center conductor.

7. Screw up the blind screw on the body.
 Screw torque $9.8N \cdot cm$ ($1Kgf \cdot cm$)

▶ Assembly Instruction (9)

Parts Configuration



1. The cable length require for the cable assembly.

$$L=L1+0.6$$

$$=L2-3.4$$

1-1. Insert the ferule into the cable.

2. Cut the cable as fig.2.

(Note) Please be careful to not damage the center conductor and outer conductor.

2-1. Pre-solder the center conductor.

3. Spread the top of the outer conductor.

3-1. Insert the body into the cable between outer conductor and insulator.

(Note) The center conductor is caught in the contact slit enough.

4. Cover the ferule on the naked outer conductor.

4-1. Crimp the ferule. (Crimping Dies : D-P)

(Note) The gap between body and ferule is within 0.5.

5. Solder up the contact with center conductor.

6. Insert the gasket, washer and blind screw.

And screw up the blind screw.

Screw toque . . . 9.8 ~ 19.6N · cm

(1 ~ 2Kgf · cm)

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