
JC Series

Rugged, Light-weight, General Purpose Circular Connector
Designed in accordance with JIS-C-5432 standard



ITTCannon

JC Series Connector

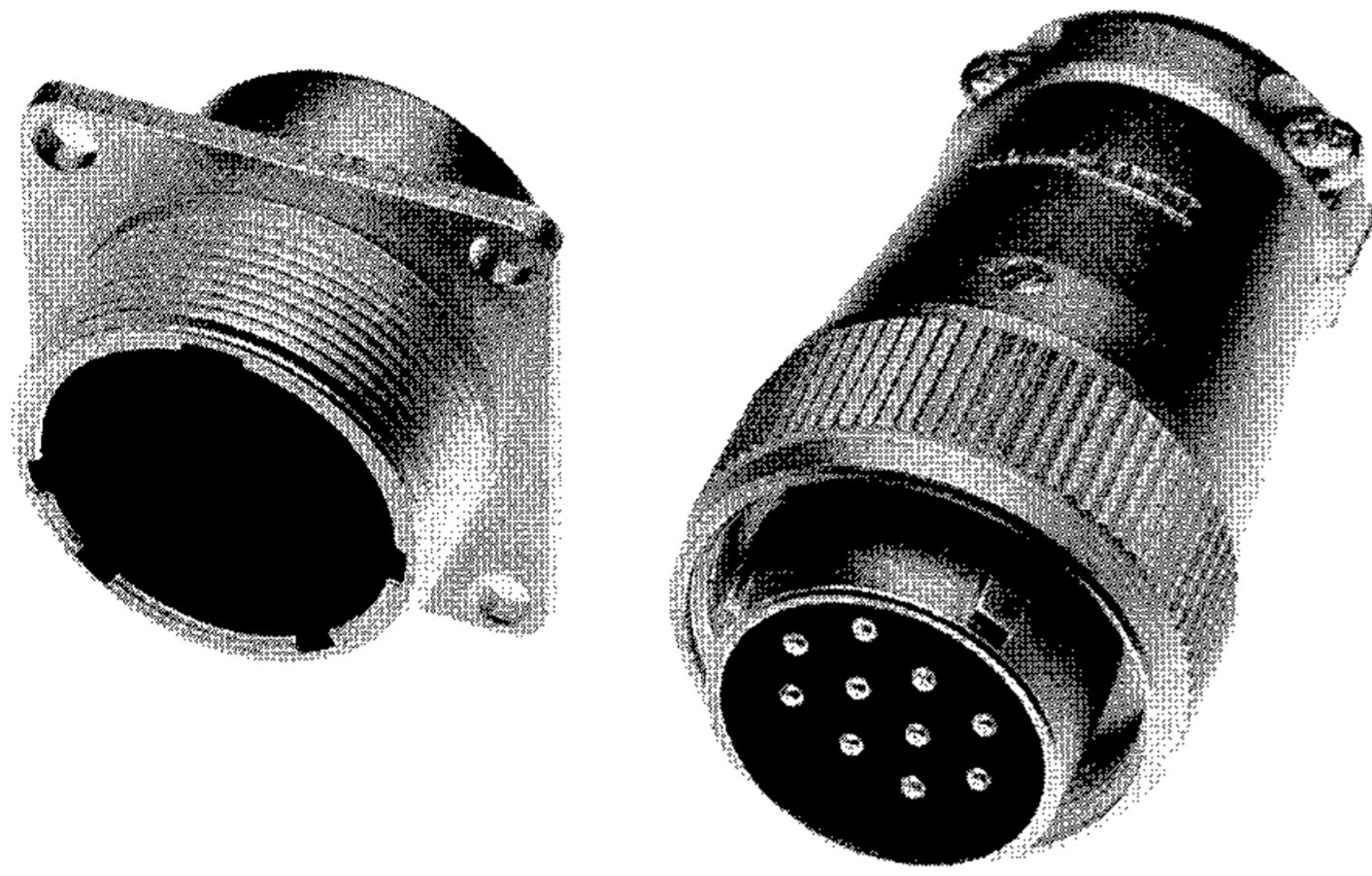


Table of Contents

| | |
|---------------------------------|---|
| Product Characteristics | 1 |
| Product Specifications | 2 |
| Contact Arrangements | 2 |
| Part number configuration | 3 |
| JC 1A | 3 |
| JC 2A | 4 |
| JC 6A | 4 |
| Exploded View | 5 |
| Panel cut-out dimension | 6 |
| Applicable cable size | 6 |
| Terminating Instruction | 6 |

JC Series Connector

* Product Characteristics:

JC series connectors are rugged, light-weight, low-cost, general purpose, circular connectors designed for use in various industrial applications.

Small and compact with an aluminum alloy shell protected by gray nickel finish. JC connectors feature five key polarization and closed-entry socket insulators for positive contact alignment and mating.

The JC series is available in three shell style and eight contact

arrangements accommodating up to twenty-four size 20 contacts. Plug and Receptacle shell styles will accommodate either pin or socket insulators.

A threaded coupling design permits full engagement of the contacts even when the coupling nut is dis-engaged. This feature is useful for bench testing application.

* Applications:

* Broadcasting Equipment, * Measurement and Testing equipment, * Medical equipment

* Multi-pin Power Connections, * Industrial Machinery, * Automatic Vending Machines,

* Features:

Proven Design

Well established commercial metal shell circular connectors designed in accordance with JIS-C-5432 standard specification.

Rugged, small, light-weight with metal shell protection

An aluminum alloy shell ensures rugged protection of the connection.

Smooth mating and stable function.

Closed-entry socket insulators guide pin-contacts to sockets contacts which ensure smooth mating of pins to socket contacts. Socket contacts are located deep within the insulators ensuring safety with finger test.

Five Key Polarization

Five key and key groove on the metal shell ensure polarization and contact alignment on mating.

JC Series Connector

Product Specifications:

Materials and Finishes:

| Components | Materials | Finish |
|--|---------------------|---------------------|
| Shell, Barrel, Coupling nut, Cable clamp | Aluminum alloy | Nickel plating |
| Insulator | Thermosetting resin | UL94V-O Color; blue |
| Contacts | Copper alloy | Silver plating |

Electrical Data:

| | |
|-----------------------------|--|
| Current Rating : | #20 contact : 5 amps / #16 contact : 10 amps |
| Maximum operating voltage : | 250 Vr.m.s. AC |
| Voltage endurance : | AC 1,000 Vr.m.s. 1-min. |
| Insulating resistance : | more than 1,000 M ohms at 500 V DC |
| Contact resistance : | less than 5 m ohms |
| Contact Termination : | Solder type |

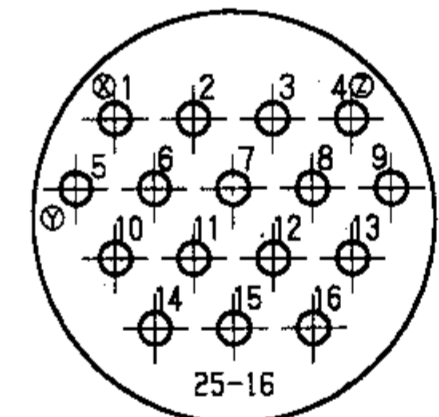
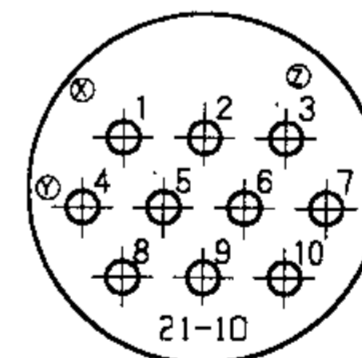
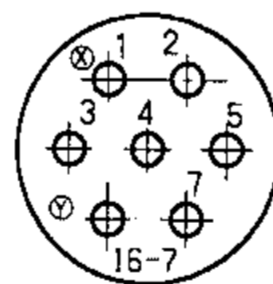
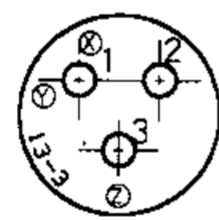
Mechanical Features:

| | |
|--------------------------------------|---|
| Shell style : | 1A Cable Mounting Coupling Receptacle 2A Box Mounting Receptacle 6A Cable Connecting Plug |
| Shell Size : | 13, 16, 21 and 25 Coupling : Threaded-JC |
| Polarization : | Five Key and Key Ways |
| Mating Cycle : | 500 times |
| Over-all Mating & Extraction Force : | |

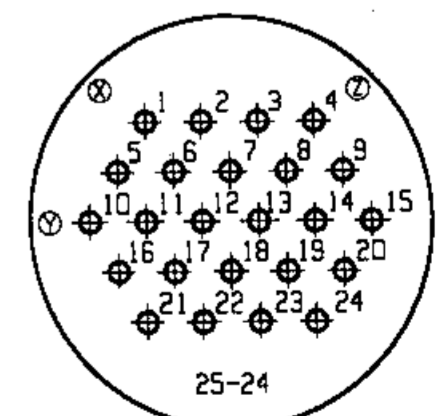
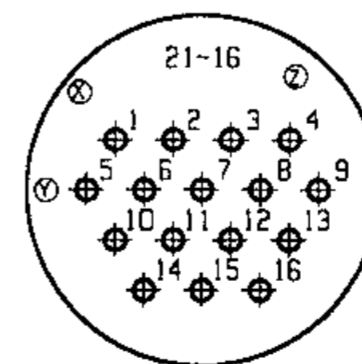
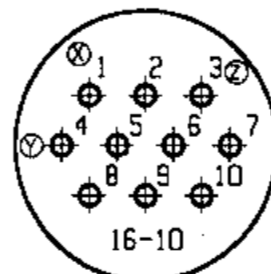
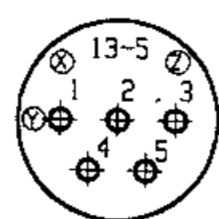
| Shell size | Pin Counts | Spec. | Shell size | Pin Counts | Spec. |
|------------|------------|-------------------|------------|------------|-------------------|
| 13 | 5 | less than 1.5Kgr. | 13 | 3 | less than 1.4Kgr. |
| 16 | 10 | less than 3.4Kgr. | 16 | 7 | less than 3.2Kgr. |
| 21 | 16 | less than 5.5Kgr. | 21 | 10 | less than 4.5Kgr. |
| 25 | 24 | less than 8.2Kgr. | 25 | 16 | less than 7.2Kgr. |

Contact Arrangements

Face view of Pin Insert shown (Socket view is opposite).



| | | | | |
|--------------------|----------------|----------------|----------------|----------------|
| Shell Size | 13-3 | 16-7 | 21-10 | 25-16 |
| Number of Contacts | 3 #16 | 7 #16 | 10 #16 | 16 #16 |
| Service rating | 10-amp, #16AWG | 10-amp, #16AWG | 10-amp, #16AWG | 10-amp, #16AWG |



| | | | | |
|--------------------|---------------|---------------|---------------|---------------|
| Shell Size | 13-5 | 16-10 | 21-16 | 25-24 |
| Number of Contacts | 5 #20 | 10 #20 | 16 #20 | 24 #20 |
| Service rating | 5-amp, #20AWG | 5-amp, #20AWG | 5-amp, #20AWG | 5-amp, #20AWG |

JC Series Connector

Part Number Configuration

JC 6 A 21 - 10 P

Series Initial _____

Shell Style _____

- 6 : Cable connecting Plug
- 2 : Box Mounting Receptacle
- 1 : Cable Mounting Coupling Receptacle

Class _____

- A : Normal environmental condition

Shell Size _____

- 13, 16, 21, 25 (outer diameter of Shell)

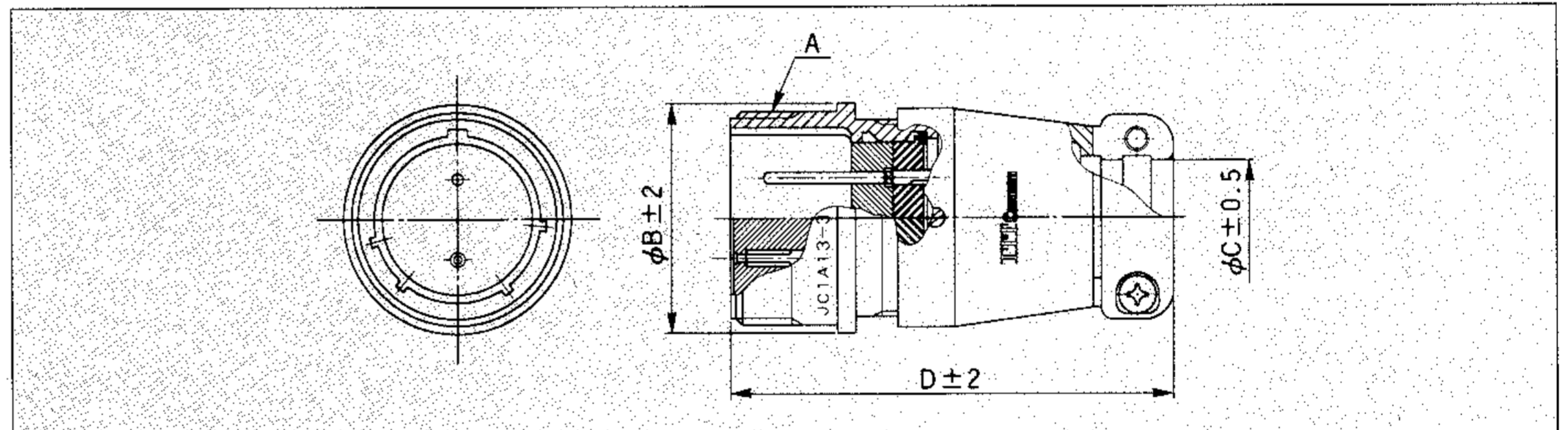
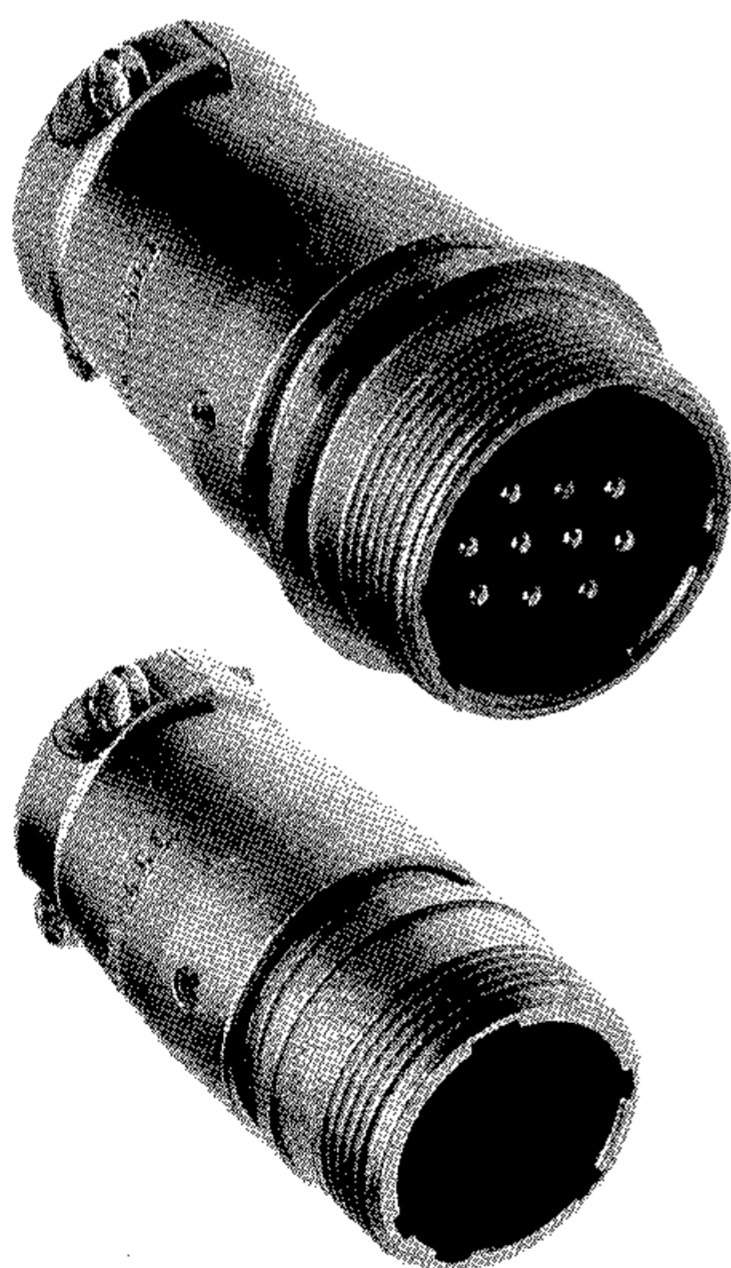
Contact Arrangement _____

- 3, 5, 7, 10(2-type), 16(2-type), 24

Contact Type _____

- P : Pin
- S : Socket

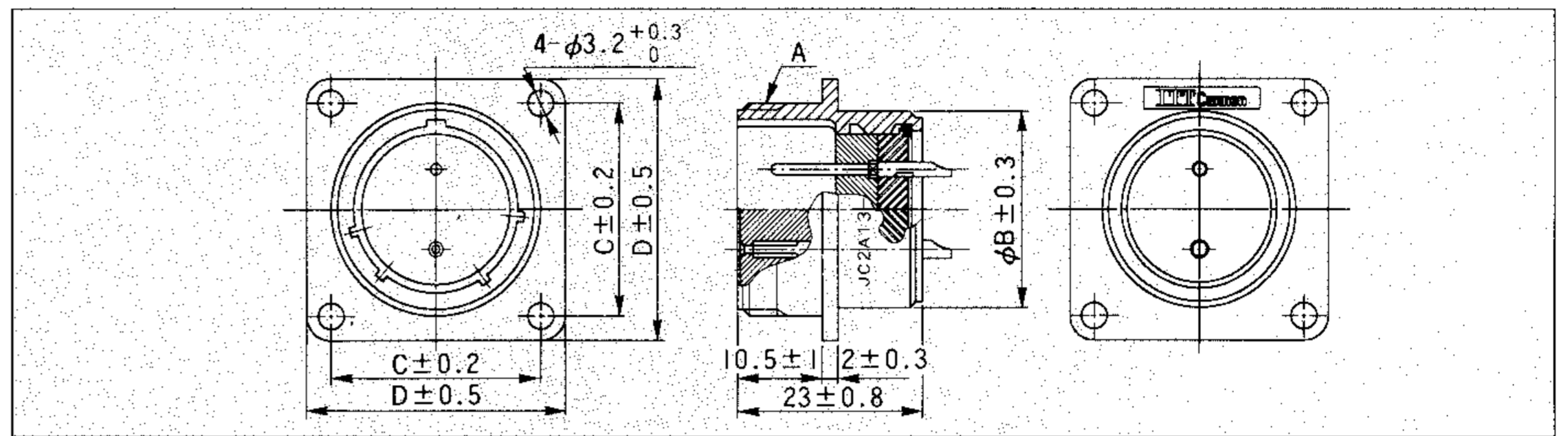
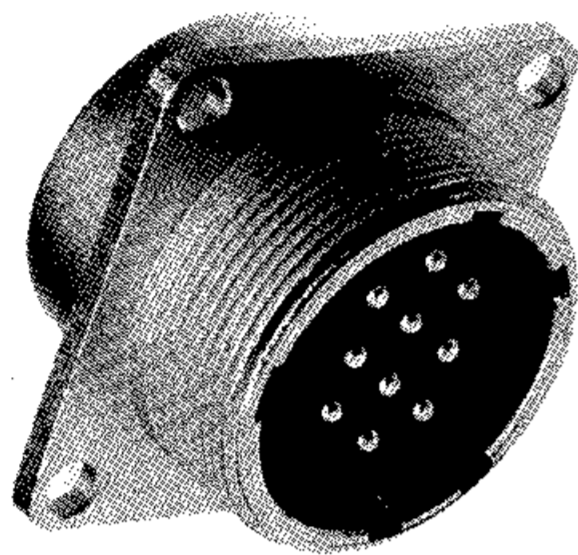
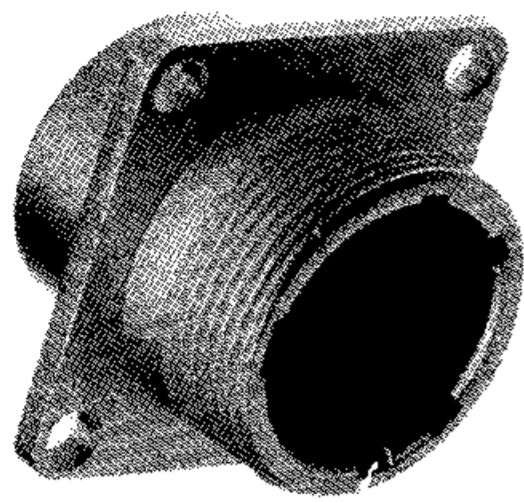
JC 1A



| Shell Size | Number of Contacts | Description | Parts Number | A | ϕB | ϕC | D |
|------------|--------------------|-------------|--------------|-------|----------|----------|------|
| 13 | 3 | JC1A13-3P | 127039-0033 | M18×1 | 21 | 8 | 44.5 |
| | | JC1A13-3S | 127039-0034 | | | | |
| | 5 | JC1A13-5P | 127039-0035 | | | | |
| | | JC1A13-5S | 127039-0036 | | | | |
| | | JC1A16-7P | 127039-0037 | | | | |
| 16 | 7 | JC1A16-7S | 127039-0038 | M22×1 | 25 | 12 | 47.5 |
| | | JC1A16-10P | 127039-0039 | | | | |
| | 10 | JC1A16-10S | 127039-0040 | | | | |
| | | JC1A21-10P | 127039-0041 | | | | |
| 21 | 10 | JC1A21-10S | 127039-0042 | M26×1 | 29 | 14 | 51.5 |
| | | JC1A21-16P | 127039-0043 | | | | |
| | 16 | JC1A21-16S | 127039-0044 | | | | |
| | | JC1A25-16P | 127039-0045 | | | | |
| 25 | 16 | JC1A25-16S | 127039-0046 | M30×1 | 33 | 18 | 54.5 |
| | | JC1A25-24P | 127039-0047 | | | | |
| | 24 | JC1A25-24S | 127039-0048 | | | | |

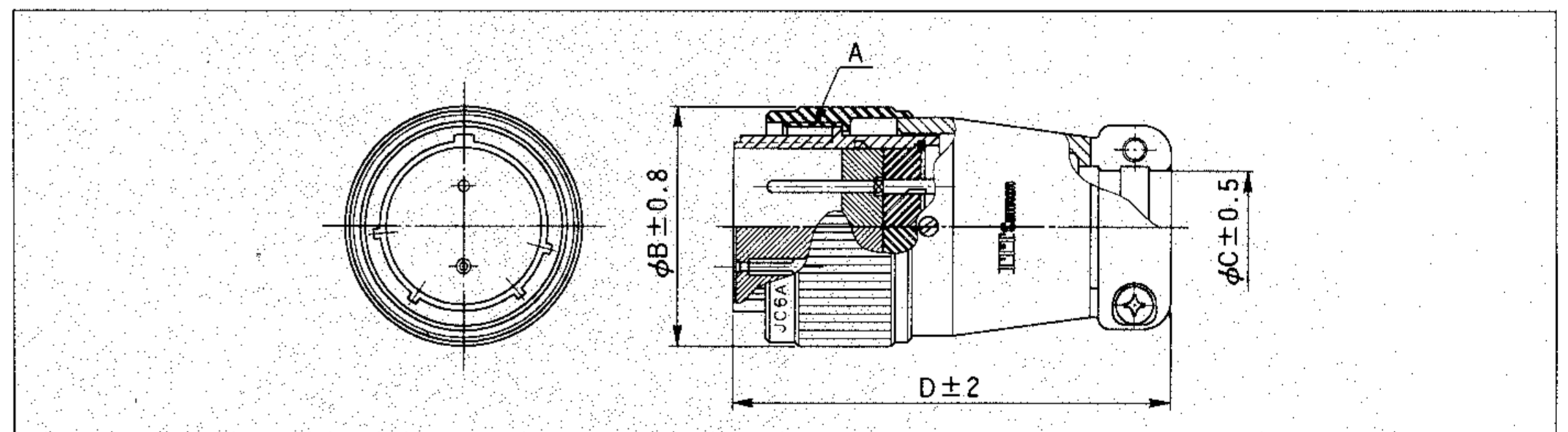
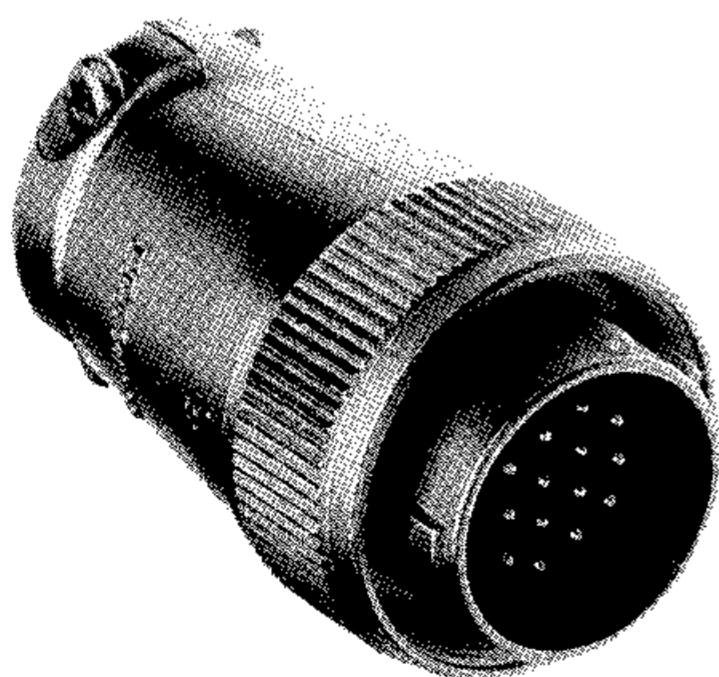
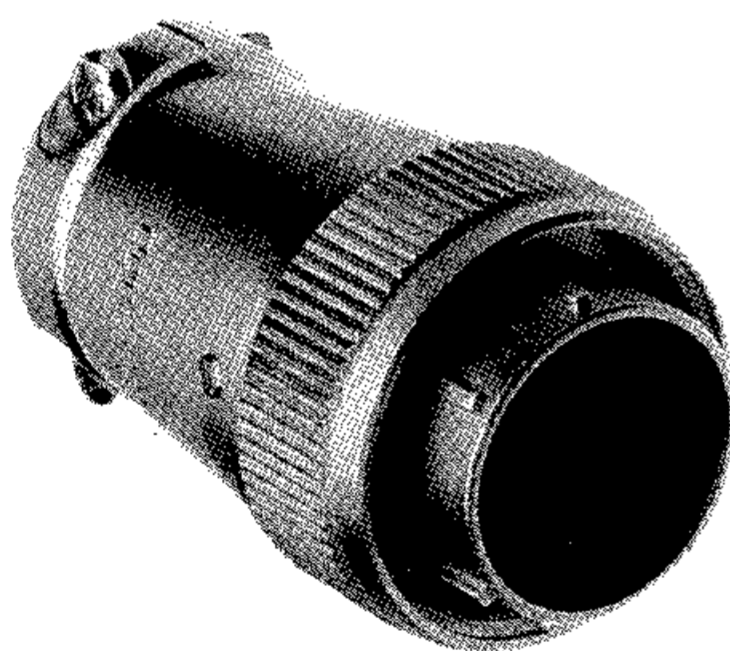
JC Series Connector

JC 2A



| Shell Size | Number of Contacts | Description | Parts Number | A | φB | φC | D |
|------------|--------------------|-------------|--------------|-------|----|----|----|
| 13 | 3 | JC2A13-3P | 127039-0017 | M18×1 | 16 | 20 | 26 |
| | | JC2A13-3S | 127039-0018 | | | | |
| | 5 | JC2A13-5P | 127039-0019 | | | | |
| 16 | 7 | JC2A13-5S | 127039-0020 | | | | |
| | | JC2A16-7P | 127039-0021 | | | | |
| | 10 | JC2A16-7S | 127039-0022 | M22×1 | 20 | 23 | 29 |
| 21 | 10 | JC2A16-10P | 127039-0023 | M26×1 | 24 | 26 | 32 |
| | | JC2A16-10S | 127039-0024 | | | | |
| | 16 | JC2A21-10P | 127039-0025 | | | | |
| 25 | 16 | JC2A21-10S | 127039-0026 | M30×1 | 28 | 29 | 35 |
| | | JC2A21-16P | 127039-0027 | | | | |
| | 24 | JC2A21-16S | 127039-0028 | | | | |
| | 16 | JC2A25-16P | 127039-0029 | M30×1 | 28 | 29 | 35 |
| | | JC2A25-16S | 127039-0030 | | | | |
| | 24 | JC2A25-24P | 127039-0031 | | | | |
| | | JC2A25-24S | 127039-0032 | | | | |

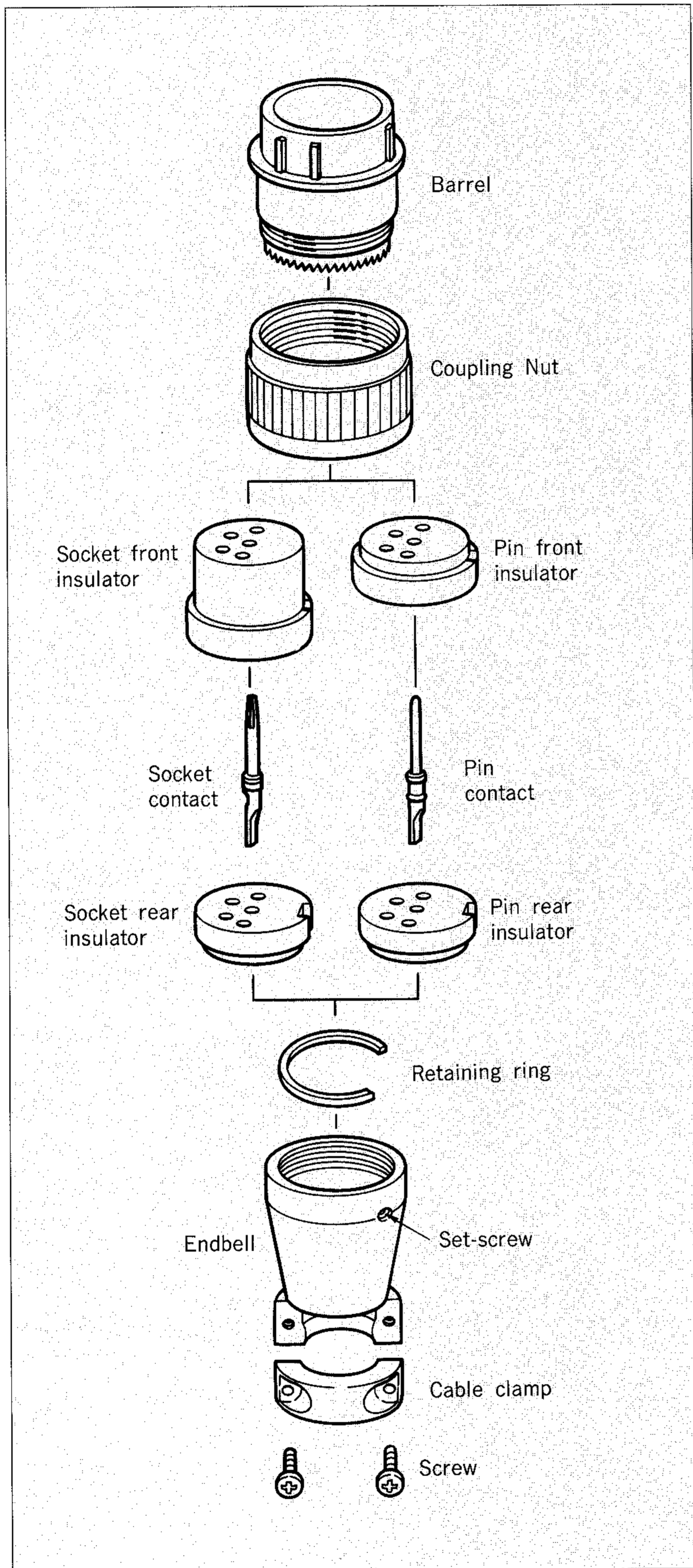
JC 6A



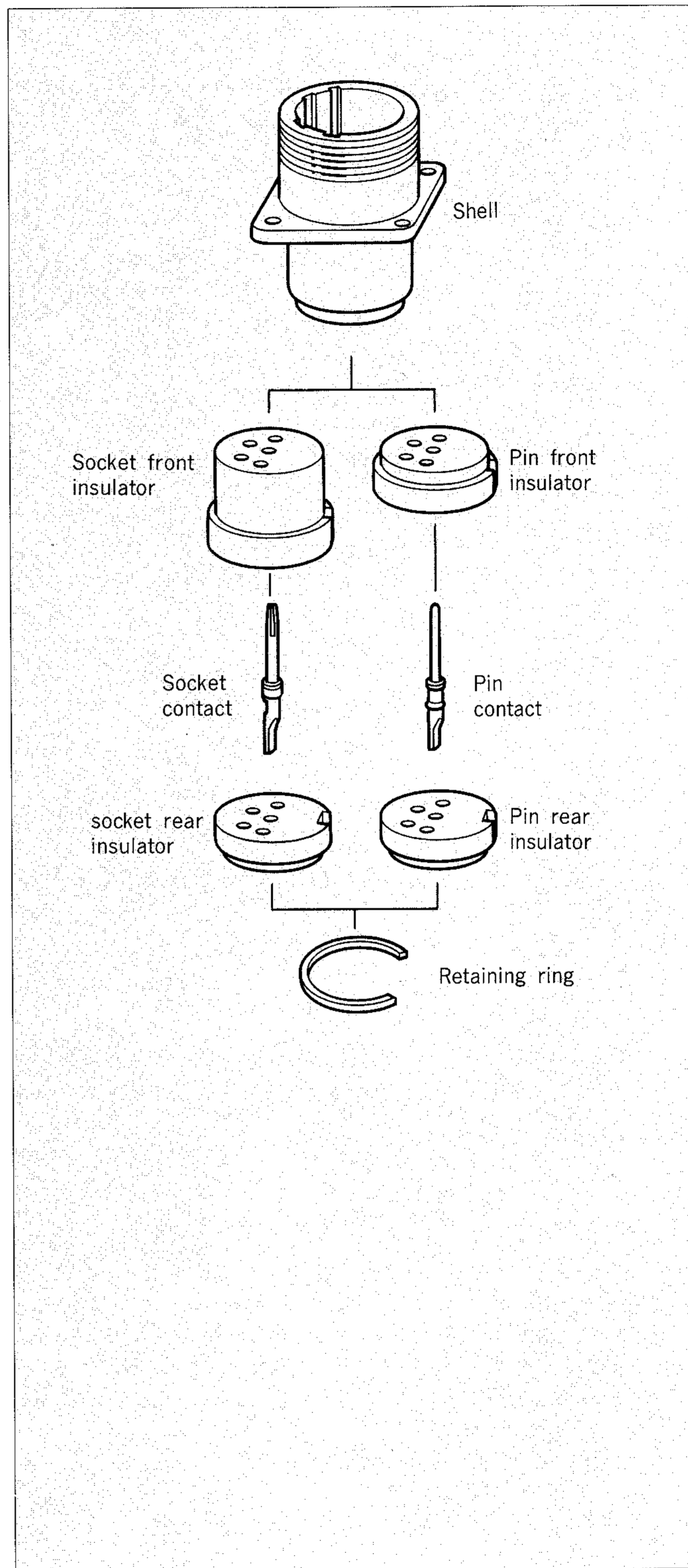
| Shell Size | Number of Contacts | Description | Parts Number | A | φB | φC | D |
|------------|--------------------|-------------|--------------|-------|------|----|----|
| 13 | 3 | JC6A13-3P | 127039-0001 | M18×1 | 21.2 | 8 | 46 |
| | | JC6A13-3S | 127039-0002 | | | | |
| | 5 | JC6A13-5P | 127039-0003 | | | | |
| 16 | 7 | JC6A13-5S | 127039-0004 | | | | |
| | | JC6A16-7P | 127039-0005 | | | | |
| | 10 | JC6A16-7S | 127039-0006 | M22×1 | 25.5 | 12 | 49 |
| 21 | 10 | JC6A16-10P | 127039-0007 | M26×1 | 29.7 | 14 | 53 |
| | | JC6A16-10S | 127039-0008 | | | | |
| | 16 | JC6A21-10P | 127039-0009 | | | | |
| 25 | 16 | JC6A21-10S | 127039-0010 | M30×1 | 33.8 | 18 | 56 |
| | | JC6A21-16P | 127039-0011 | | | | |
| | 24 | JC6A21-16S | 127039-0012 | | | | |
| | 16 | JC6A25-16P | 127039-0013 | M30×1 | 33.8 | 18 | 56 |
| | | JC6A25-16S | 127039-0014 | | | | |
| | 24 | JC6A25-24P | 127039-0015 | | | | |
| | | JC6A25-24S | 127039-0016 | | | | |

JC Series Connector Exploded View

Plug

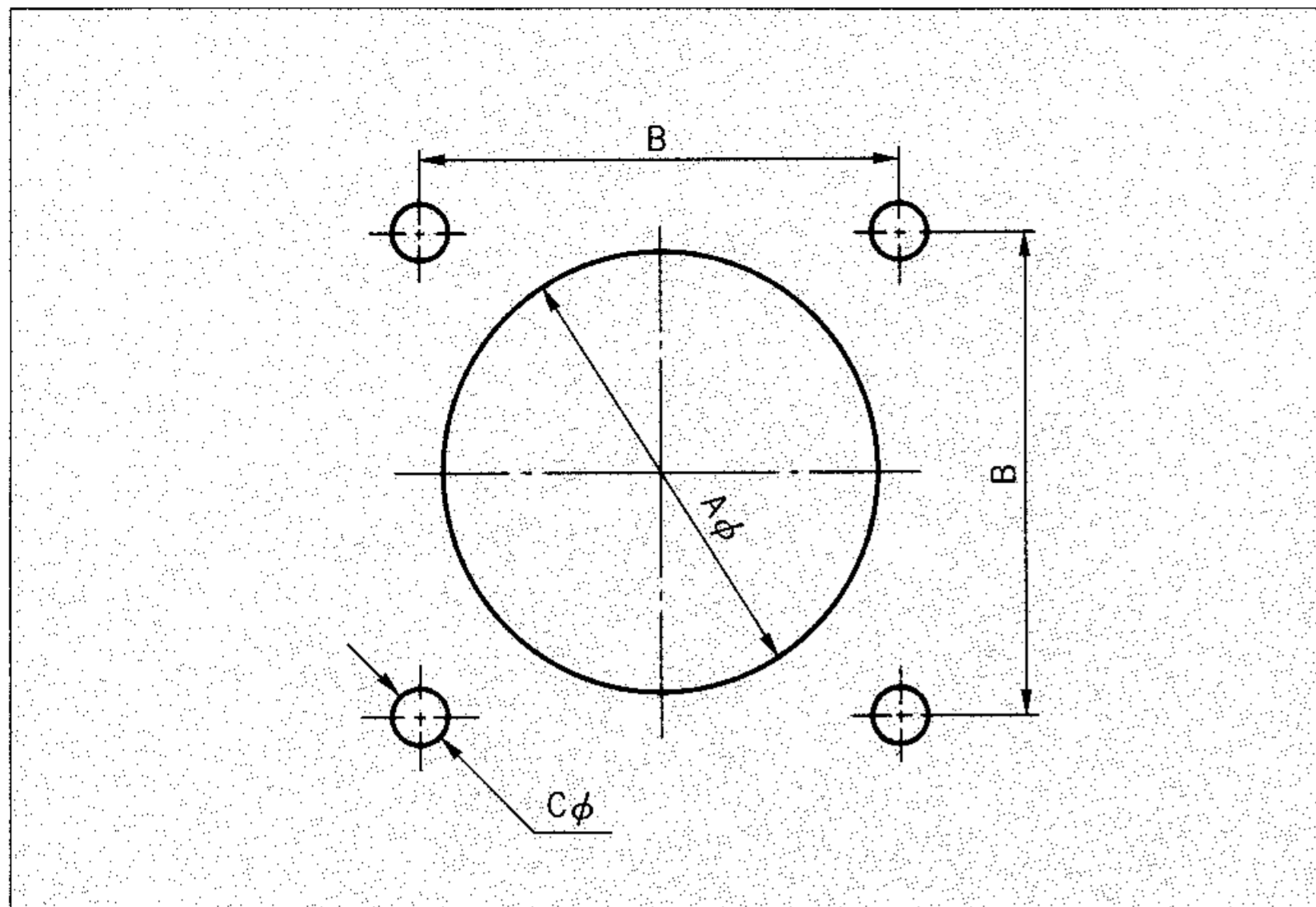


Receptacle



JC Series Connector

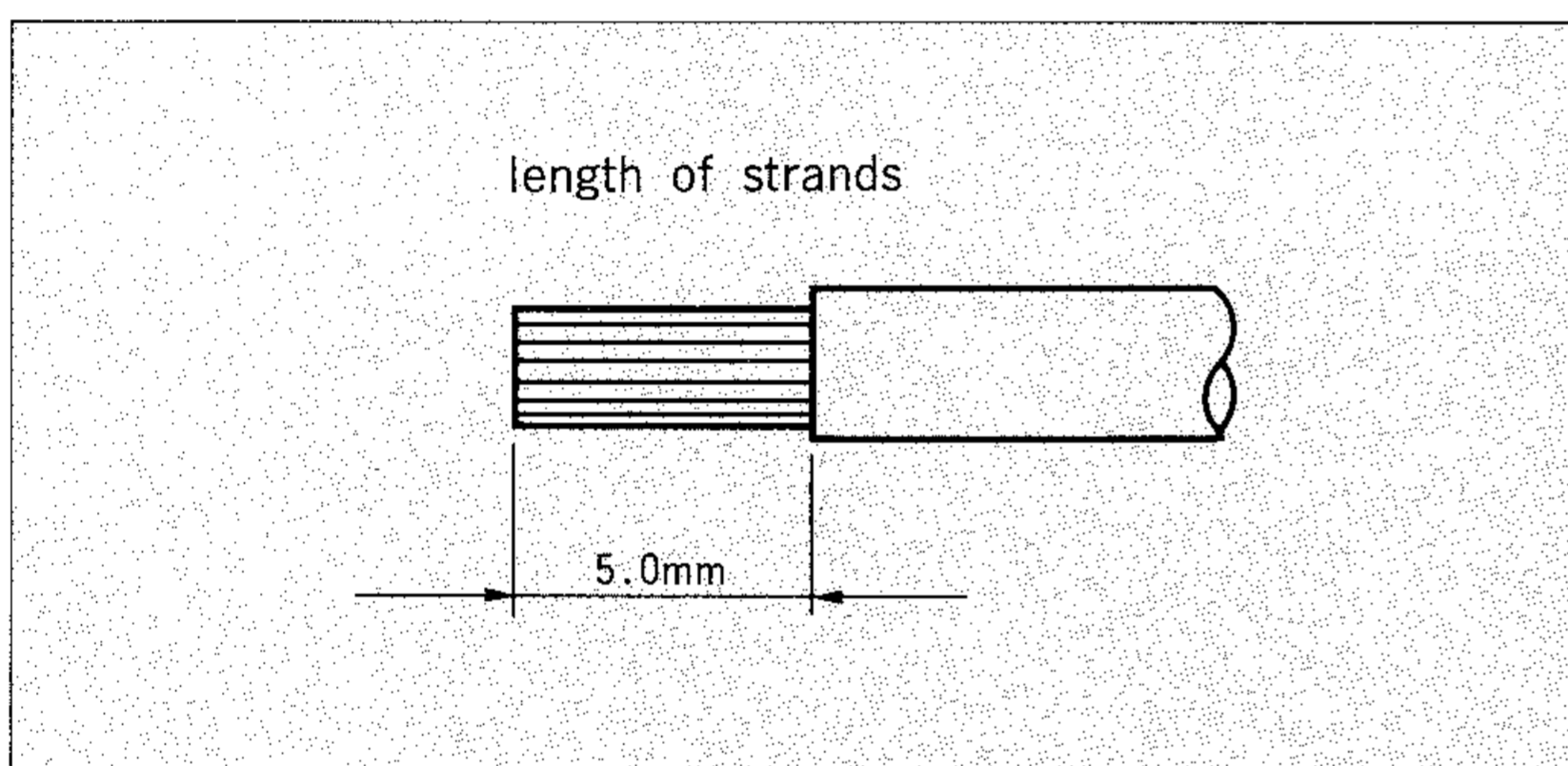
* Panel cut-out dimension (page-6)



| Shell Size | A ϕ ± 0.5 | B ± 0.2 | C ϕ -0.3 -0 |
|------------|-----------------------|----------------|------------------------|
| 13 | 20 | 20 | 3.2 |
| 16 | 24 | 23 | 3.2 |
| 21 | 28 | 26 | 3.2 |
| 25 | 32 | 29 | 3.2 |

(note) In case of rear mounting, panel thickness should be less than 4.00 mm

* Applicable Cable Size



| Contact size | Cable AWG | Diameter of conductor |
|--------------|----------------|--------------------------------|
| 20 | #20 or thinner | 0.5mm ² or smaller |
| 16 | #16 or thinner | 1.25mm ² or smaller |

* Terminating Instruction

Cable must come through Endbell in advance to termination.

Release the set-screw and remove Endbell from Barrel of connector then cable to be come through the Endbell.

After completion of soldering termination, re-assemble Endbell to Barrel then tighten up set-screw.

