

# FOR BOARD-TO-CABLE CONNECTION

## 230 SERIES (FOR FLAT CABLE CONNECTION)

### ■ FEATURES

- Two 1.27 mm (0.050 in.) pitch flat cables can be used.
- 1.27 mm (0.05 in.) pitch contact arrangement in two rows and terminal arrangement in a four-row staggered array (2.54 mm × 1.905 mm) (0.100 × 0.075 in.) enable high-density mounting.
- The socket kit is comprised of two IDC sockets (body 1, body 2). After IDC termination, the bodies are "snapped" together to form one complete socket assembly.
- Connectors with 20 to 100 contacts are available.
- Latch mechanism provides easy disconnection.
- A clip-on key prevents incorrect insertion of a connector when two or more connectors with the same number of contacts are mounted on a PC board.



### ■ SPECIFICATIONS

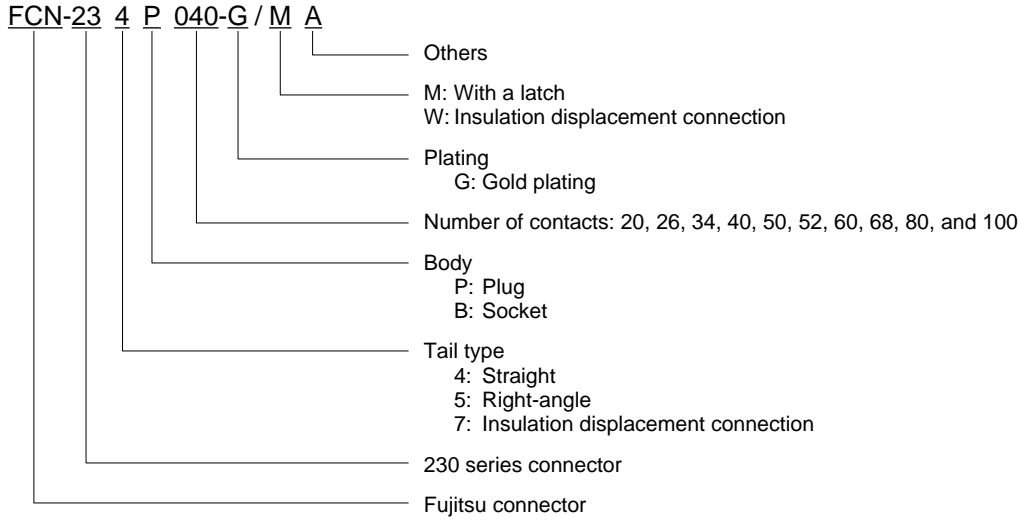
| Item                         | Specifications  |
|------------------------------|---|
| Operating temperature range  | -55°C to +105°C   |
| Current rating               | DC 0.5 A  |
| Voltage rating               | AC 240 V  |
| Contact resistance           | 30 mΩ max. (DC 6 V, 0.1A)                                 |
| Insulation resistance        | 1000 MΩ min. (DC 500 V)                                   |
| Dielectric withstand voltage | AC 750 V for 1 minute                                     |
| Insertion force              | 3 kg max. (20 contacts)                                   |
| Withdrawal force             | 0.4 kg min. (20 contacts)                                 |
| Applicable wire              | 1.27 mm (0.050 in.) flat cable<br>AWG #28 (stranded wire) |

### ■ MATERIALS

| Item      | Materials    |                   |
|-----------|--------------|-------------------|
| Insulator | Polyester    |                   |
| Conductor | Copper alloy |                   |
| Plating   | Contact      | Gold plating      |
|           | Terminal     | Palladium plating |

# 230 Series (For Flat Cable Connection)

## ORDERING CODE



## APPLICATIONS



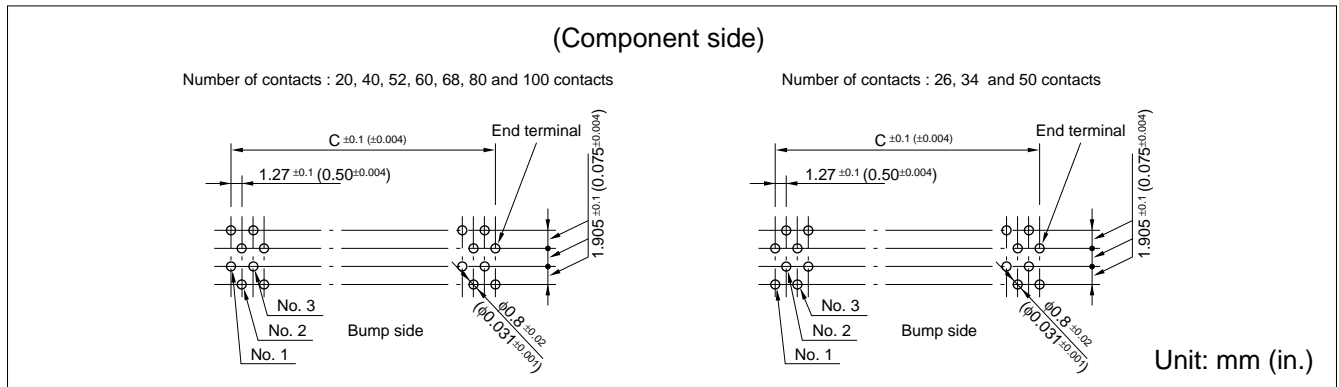
# 230 Series (For Flat Cable Connection)

## STRAIGHT PLUG

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT



### ■ PART NUMBERS AND DIMENSIONS

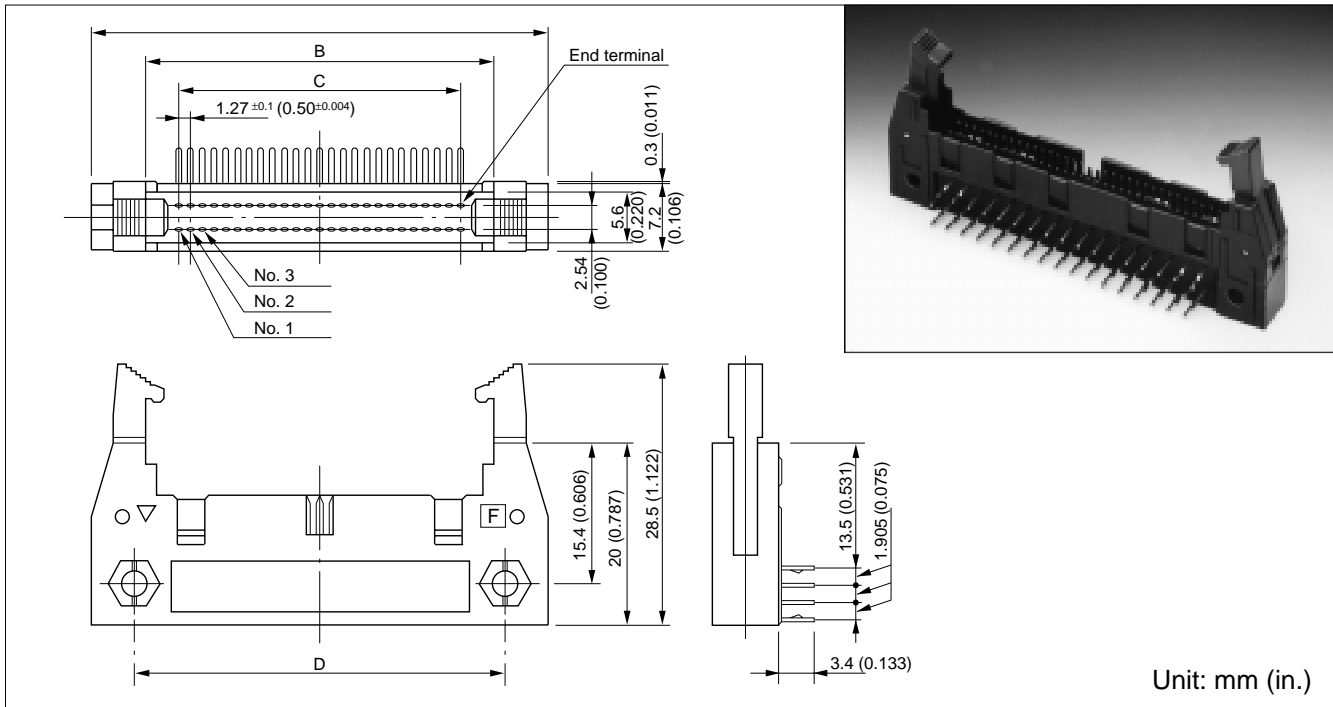
| Number of contacts | Part number      | Dimensions: mm (in.) |               |               |
|--------------------|------------------|----------------------|---------------|---------------|
|                    |                  | A                    | B             | C             |
| 20                 | FCN-234P020-G/MA | 30.40 (0.035)        | 18.77 (0.738) | 11.43 (0.450) |
| 26                 | FCN-234P026-G/MA | 34.21 (1.346)        | 22.58 (0.888) | 15.24 (0.600) |
| 34                 | FCN-234P034-G/MA | 39.29 (1.546)        | 27.66 (1.088) | 20.32 (0.800) |
| 40                 | FCN-234P040-G/MA | 43.10 (1.656)        | 31.47 (1.238) | 24.13 (0.950) |
| 50                 | FCN-234P050-G/MA | 49.45 (1.946)        | 37.82 (1.488) | 30.48 (1.200) |
| 52                 | FCN-234P052-G/MA | 50.72 (1.996)        | 39.09 (1.538) | 31.75 (1.250) |
| 60                 | FCN-234P060-G/MA | 55.80 (2.196)        | 44.17 (1.738) | 36.83 (1.450) |
| 68                 | FCN-234P068-G/MA | 60.88 (2.396)        | 49.25 (1.938) | 41.91 (1.650) |
| 80                 | FCN-234P080-G/MA | 68.50 (2.696)        | 56.87 (2.238) | 49.53 (1.950) |
| 100                | FCN-234P100-G/MA | 81.20 (3.196)        | 69.57 (2.738) | 62.23 (2.450) |

The connectors listed above have clinched retention tails. This series also includes connectors with tails which are not clinched for retention. Specify a part number by replacing -G/MA at the end with -G/MB.

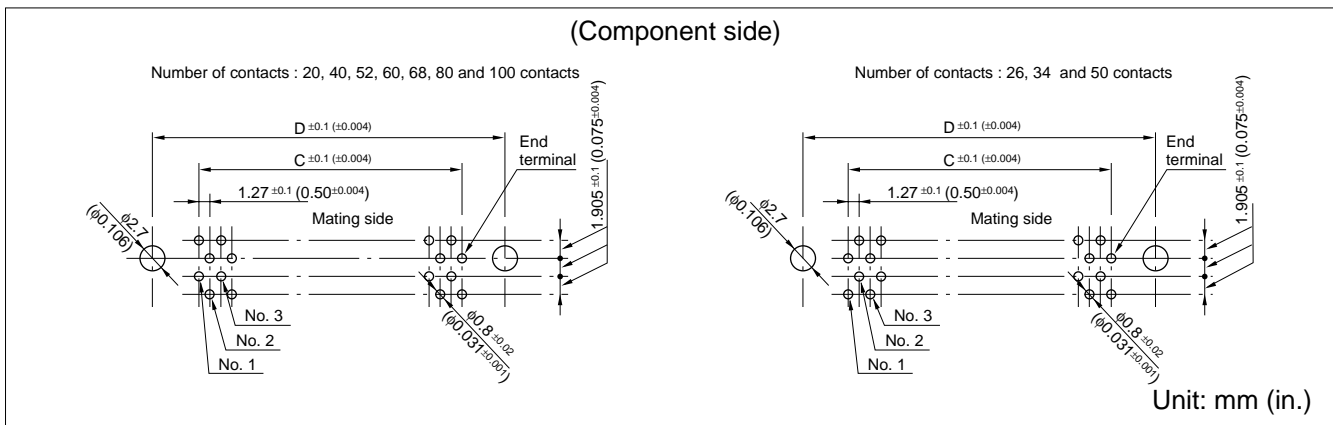
# 230 Series (For Flat Cable Connection)

## RIGHT-ANGLE PLUG

### ■ DIMENSIONS



### ■ MOUNTING HOLE LAYOUT



### ■ PART NUMBERS AND DIMENSIONS

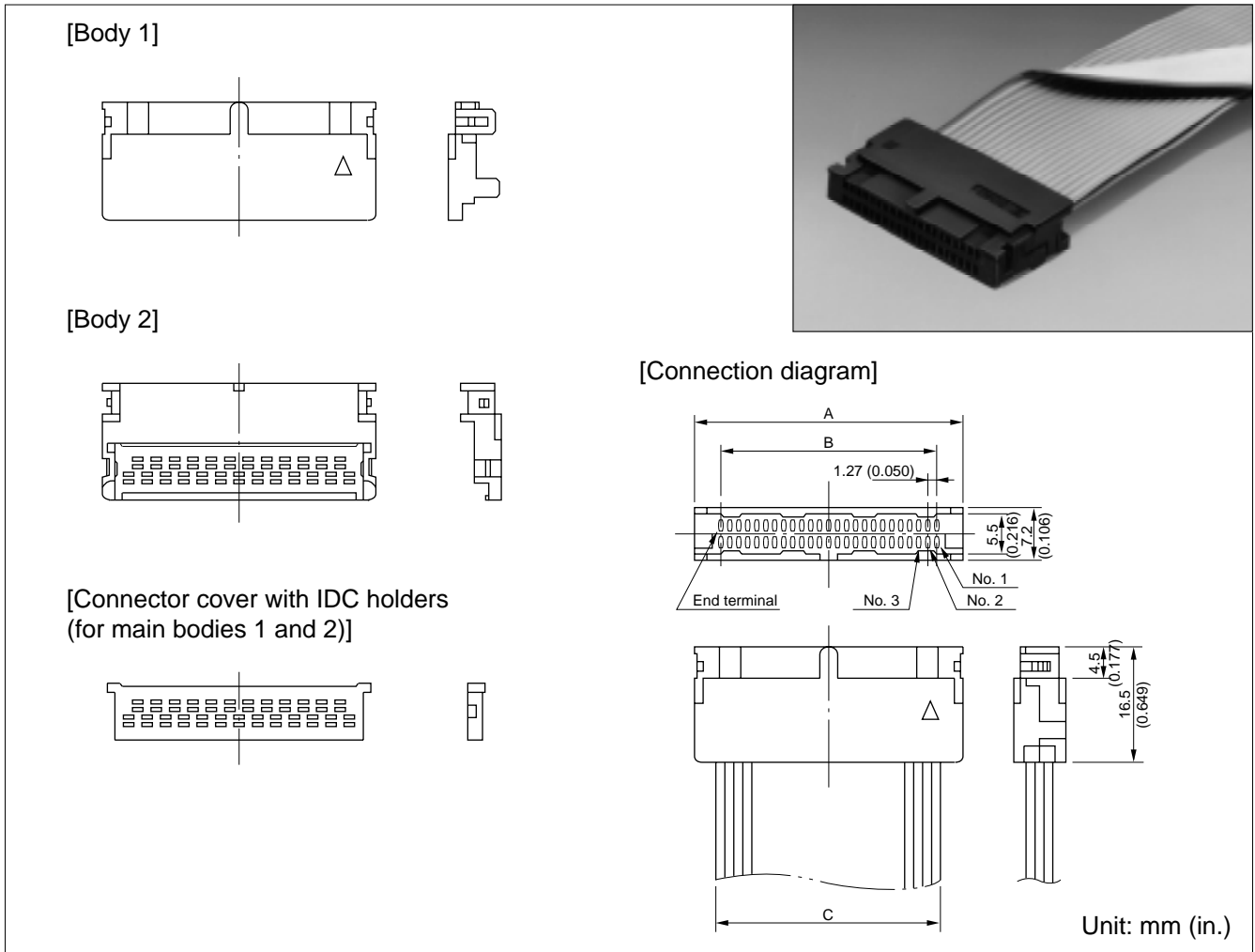
| Number of contacts | Part number      | Dimensions: mm (in.) |               |               |               |
|--------------------|------------------|----------------------|---------------|---------------|---------------|
|                    |                  | A                    | B             | C             | D             |
| 20                 | FCN-235P020-G/MA | 30.40 (0.035)        | 18.77 (0.738) | 11.43 (0.450) | 21.59 (0.850) |
| 26                 | FCN-235P026-G/MA | 34.21 (1.346)        | 22.58 (0.888) | 15.24 (0.600) | 25.40 (1.000) |
| 34                 | FCN-235P034-G/MA | 39.29 (1.546)        | 27.66 (1.088) | 20.32 (0.800) | 30.48 (1.200) |
| 40                 | FCN-235P040-G/MA | 43.10 (1.656)        | 31.47 (1.238) | 24.13 (0.950) | 34.29 (1.350) |
| 50                 | FCN-235P050-G/MA | 49.45 (1.946)        | 37.82 (1.488) | 30.48 (1.200) | 40.64 (1.600) |
| 52                 | FCN-235P052-G/MA | 50.72 (1.996)        | 39.09 (1.538) | 31.75 (1.250) | 41.91 (1.650) |
| 60                 | FCN-235P060-G/MA | 55.80 (2.196)        | 44.17 (1.738) | 36.83 (1.450) | 46.99 (1.850) |
| 68                 | FCN-235P068-G/MA | 60.88 (2.396)        | 49.25 (1.938) | 41.91 (1.650) | 52.07 (2.050) |
| 80                 | FCN-235P080-G/MA | 68.50 (2.696)        | 56.87 (2.238) | 49.53 (1.950) | 59.69 (2.350) |
| 100                | FCN-235P100-G/MA | 81.20 (3.196)        | 69.57 (2.738) | 62.23 (2.450) | 72.39 (2.850) |

The connectors listed above have clinched retention tails. This series also includes connectors with tails which are not clinched for retention. Specify a part number by replacing -G/MA at the end with -G/MB.

# 230 Series (For Flat Cable Connection)

## SOCKET

### ■ DIMENSIONS



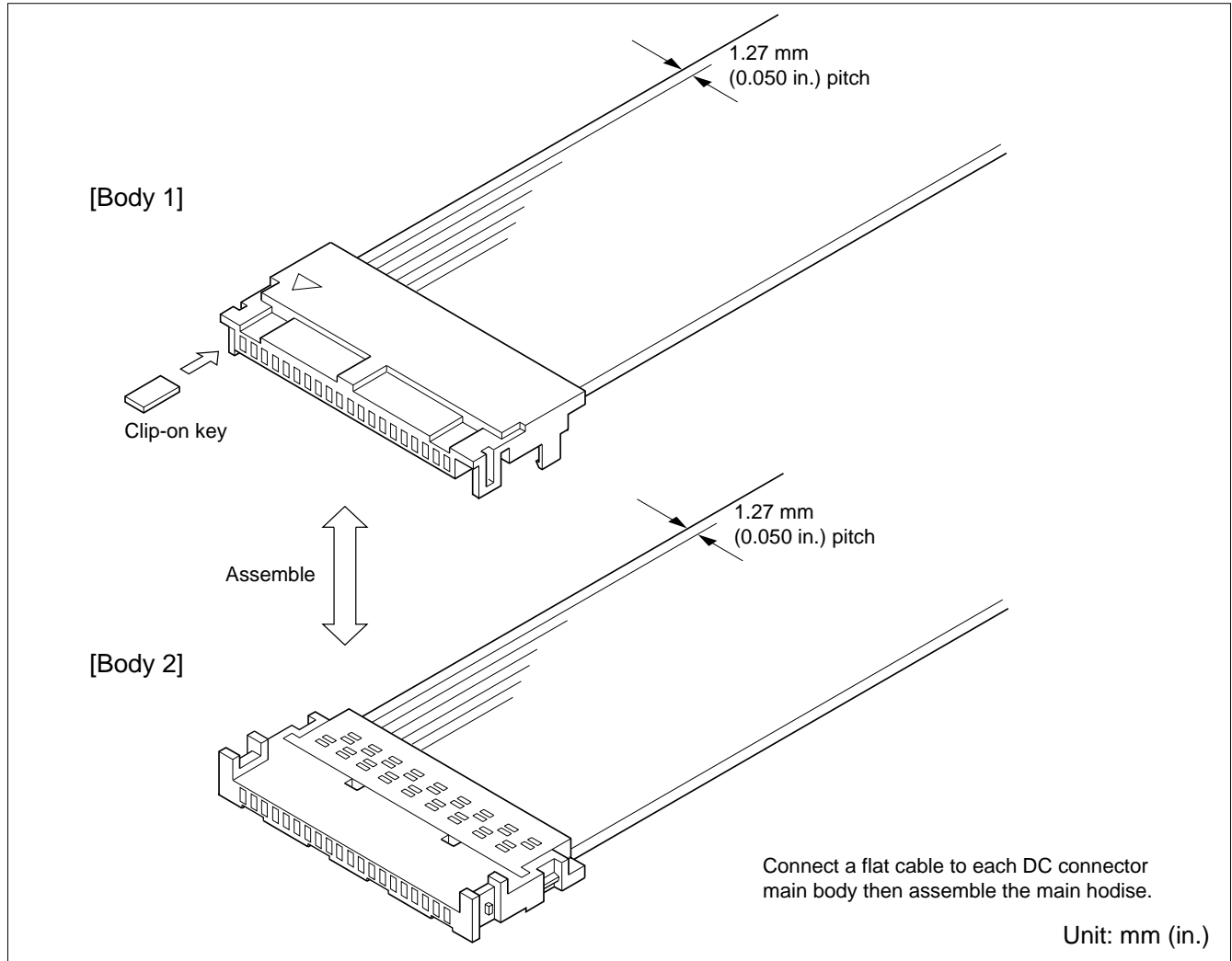
### ■ PART NUMBERS AND DIMENSIONS

| Number of contacts | Part number     | Dimensions: mm (in.) |               |               |
|--------------------|-----------------|----------------------|---------------|---------------|
|                    |                 | A                    | B             | C             |
| 20                 | FCN-237B020-G/W | 18.57 (0.731)        | 11.43 (0.450) | 12.70 (0.500) |
| 26                 | FCN-237B026-G/W | 22.38 (0.881)        | 15.24 (0.600) | 16.51 (0.650) |
| 34                 | FCN-237B034-G/W | 27.46 (1.081)        | 20.32 (0.800) | 21.59 (0.850) |
| 40                 | FCN-237B040-G/W | 31.27 (1.231)        | 24.13 (0.950) | 25.40 (1.000) |
| 50                 | FCN-237B050-G/W | 37.62 (1.481)        | 30.48 (1.200) | 31.75 (1.250) |
| 52                 | FCN-237B052-G/W | 38.89 (1.531)        | 31.75 (1.250) | 33.02 (1.300) |
| 60                 | FCN-237B060-G/W | 43.97 (1.731)        | 36.83 (1.450) | 38.10 (1.500) |
| 68                 | FCN-237B068-G/W | 49.05 (1.931)        | 41.91 (1.650) | 43.18 (1.700) |
| 80                 | FCN-237B080-G/W | 56.67 (2.231)        | 49.53 (1.950) | 50.80 (2.000) |
| 100                | FCN-237B100-G/W | 69.37 (2.731)        | 62.23 (2.450) | 63.50 (2.500) |

See page 2-39 for IDC tools.

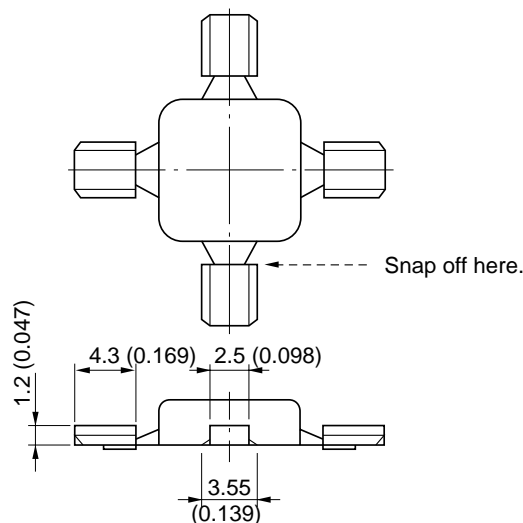
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## ■ HARNESS SHAPE



## ■ ACCESSORY

Clip-on keys  
Part number: FCN-230A1



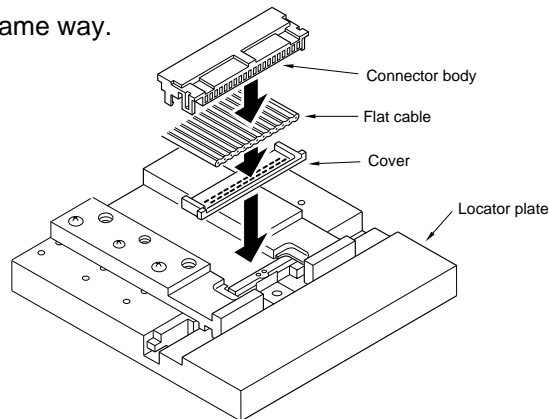
# 230 Series (For Flat Cable Connection)

## IDC TOOLS



### ■ CONNECTION PROCEDURE (OUTLINE)

1. Cut the flat cable with the cable cutter (cut perpendicular to the cable in the same way as for conventional MIL types).
2. Position the cover, flat cable, and connector body on the locator plate, then make connection using the hand press.
3. Connect the other connector body in the same way.



4. Assemble the connector bodies.



# 230 Series (For Flat Cable Connection)

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