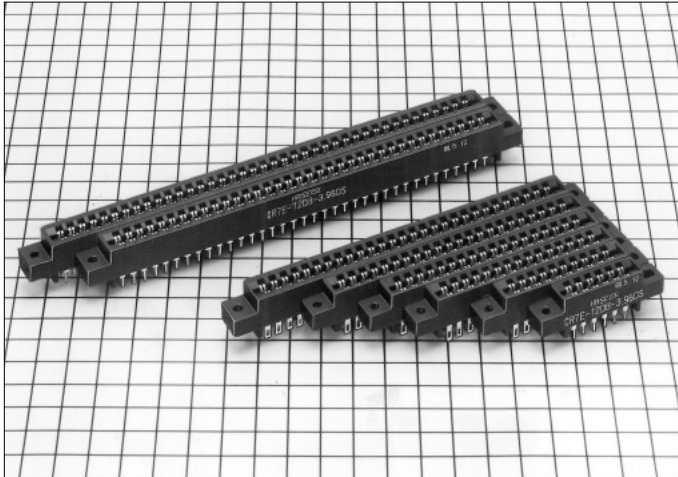
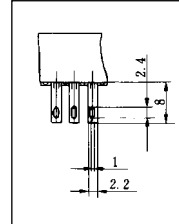


3.96mm and 4mm Pitch Card Edge Connector

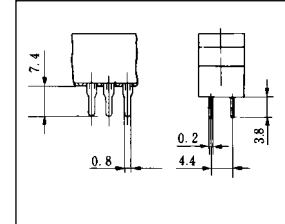
CR7 Series



Connection Type



Eyelet

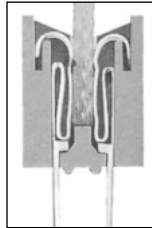


Through hole

■Features

1. Contact Type

Uses 2 steps of bellows type contact, where the contact pitch is 3.96mm or 4mm.



2. Variation in number of contacts

12, 20, 28, 30, 36, 44, 56, 72 and 80 contacts are available.

3. Connection Type

Eyelet and through hole types are available.

4. Prevents mis-insertion in the board

Using the polarizing key prevents mis-insertion in the printed board.

■Product Specifications

| Rating | Current rating: 3A Voltage rating: 600V AC | Operating Temperature Range: -30 to +85°C (Note 1) Operating Humidity Range: 40 to 80% | Storage Temperature Range: -10 to +60°C (Note 2) Storage Humidity Range: 40 to 70% (Note 2) |
|--------|---|---|--|
|--------|---|---|--|

| Item | Specification | Condition |
|---------------------------------|---|---|
| 1.Insulation Resistance | 5000M ohms | 500V DC |
| 2.Withstanding Voltage | No flashover or insulation breakdown. | 1800V AC/1 minute |
| 3.Contact Resistance | 15m ohms max. | 100mA |
| 4.Vibration | No electrical discontinuity of 10μs or more | Frequency: 10 to 55 Hz, single amplitude of 0.75 mm, 2 hours in each of the 3 directions. |
| 5.Humidity (Steady state) | Insulation resistance: 1000M min. | 96 hours at temperature of 40°C and humidity of 90% to 95% |
| 6.Temperature Cycle | No damage, cracks, or parts looseness. | (-55°C : 30 minutes→15 to 35°C: 5 minutes max.→ 85°C : 30 minutes→15 to 35°C: 5 minutes max.) 5 cycles |
| 7.Durability (Mating/un-mating) | Contact resistance: 15m ohms max. | 500 cycles |
| 8.Resistance to Soldering heat | No deformation of components affecting performance. | Manual soldering: 300°C for 3 seconds |

Note 1: Includes temperature rise caused by current flow.

Note 2: The term "storage" refers to products stored for long period of time prior to mounting and use. Operating Temperature Range and Humidity range covers non conducting condition of installed connectors in storage, shipment or during transportation.

Material

| Parts | Material | Finish | | Remarks |
|-----------|---------------|--------------|-----------------------|---------|
| Insulator | Polycarbonate | Blue | | UL94V-0 |
| Contact | Copper alloy | Contact area | Selective gold plated | _____ |
| | | Lead area | Tin-lead plated | _____ |

Ordering Information

CR7

1

C

2

-

20

3

D

4

B

5

-

4

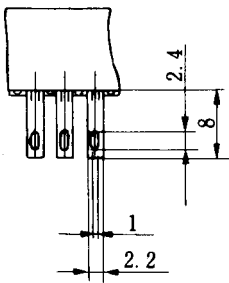
6

E

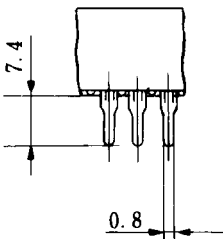
7

| | |
|---|---|
| 1 Series Name : CR7 | 4 Contact alignment : D:Double side |
| 2 Mold type : C : 4mm pitch mold E : 3.96mm pitch mold | 5 Contact Type B : Selective gold plated |
| 3 Number of contacts : C : 20, 28, 36, 44, 56 E : 12, 20, 30, 36, 44, 56, 72, 80 | 6 Contact pitch : 4mm or 3.96mm |
| | 7 Contact style E : Eyelet DS : Through hole |

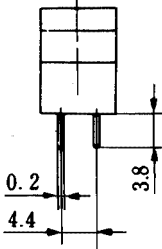
Contact Type



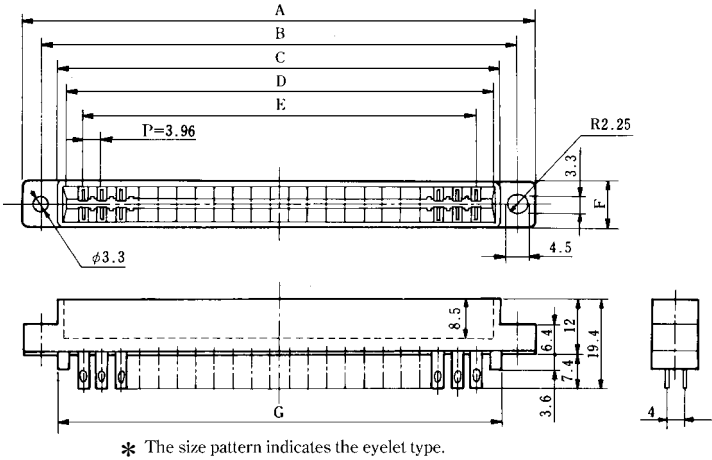
(1) Eyelet



(2) Through hole

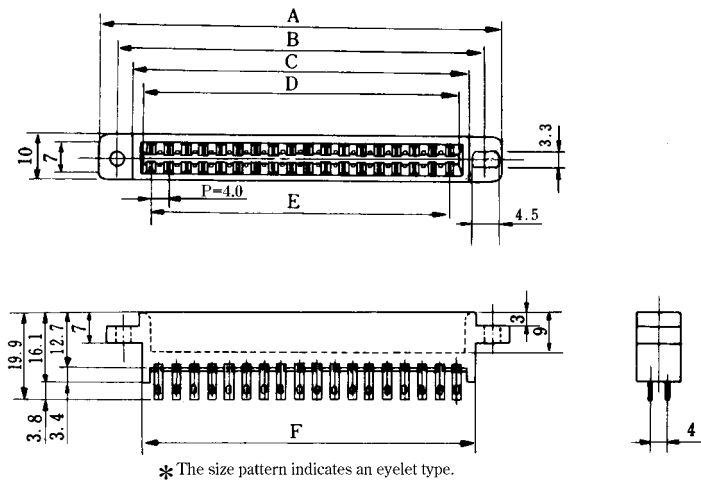


■3.96mm Pitch Type



| Unit: mm | | | | | | | | | |
|------------------|------------|--------------------|-------|-------|-------|-------|--------|------|-------|
| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F | G |
| CR7E-12DB-3.96E | 507-0102-6 | 12 | 47 | 38.9 | 30.7 | 28 | 19.8 | 9 | 29.7 |
| CR7E-12DB-3.96DS | 507-0115-8 | | | | | | | | |
| CR7E-20DB-3.96E | 507-0103-9 | 20 | 63 | 54.8 | 47.3 | 43.8 | 35.64 | 9 | 46.3 |
| CR7E-20DB-3.96DS | 507-0116-0 | | | | | | | | |
| CR7E-30DB-3.96E | 507-0104-1 | 30 | 82.5 | 74.6 | 67.2 | 63.6 | 55.44 | 9 | 66.2 |
| CR7E-30DB-3.96DS | 507-0117-3 | | | | | | | | |
| CR7E-36DB-3.96E | 507-0105-4 | 36 | 94.4 | 86.5 | 79 | 75.5 | 67.32 | 9 | 79 |
| CR7E-36DB-3.96DS | 507-0118-6 | | | | | | | | |
| CR7E-44DB-3.96E | 507-0106-7 | 44 | 110.2 | 102.4 | 95 | 91.4 | 83.16 | 9 | 94 |
| CR7E-44DB-3.96DS | 507-0119-9 | | | | | | | | |
| CR7E-56DB-3.96E | 507-0107-0 | 56 | 133.7 | 126 | 118.1 | 115 | 106.92 | 11.1 | 117.1 |
| CR7E-56DB-3.96DS | 507-0120-8 | | | | | | | | |
| CR7E-72DB-3.96E | 507-0108-2 | 72 | 166 | 158 | 150 | 146.8 | 138.68 | 11.1 | 149 |
| CR7E-72DB-3.96DS | 507-0121-0 | | | | | | | | |
| CR7E-80DB-3.96E | 507-0109-5 | 80 | 182 | 174 | 166 | 162.7 | 154.44 | 11.1 | 165 |
| CR7E-80DB-3.96DS | 507-0122-3 | | | | | | | | |

■4mm Pitch Type

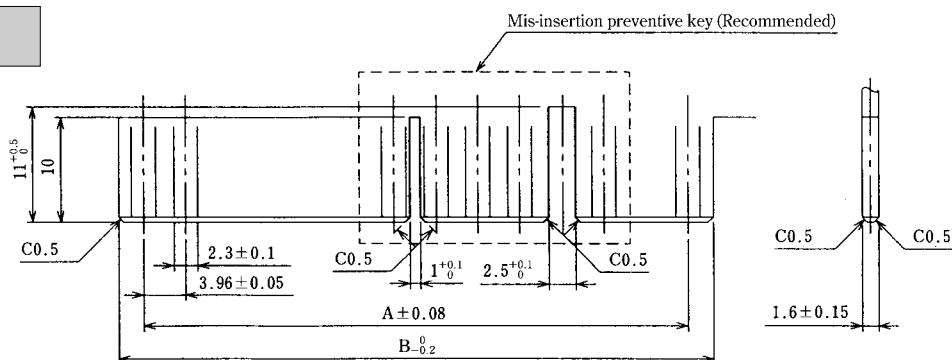


Unit: mm

| Part Number | CL No. | Number of Contacts | A | B | C | D | E | F |
|---------------|------------|--------------------|-----|-----|-----|-------|-----|-----|
| CR7C-20DB-4E | 507-0110-4 | 20 | 58 | 50 | 43 | 41 | 36 | 43 |
| CR7C-20DB-4DS | 507-0123-6 | | | | | | | |
| CR7C-28DB-4E | 507-0111-7 | 28 | 75 | 67 | 60 | 57 | 52 | 59 |
| CR7C-28DB-4DS | 507-0124-9 | | | | | | | |
| CR7C-36DB-4E | 507-0112-0 | 36 | 92 | 84 | 77 | 73 | 68 | 76 |
| CR7C-36DB-4DS | 507-0125-1 | | | | | | | |
| CR7C-44DB-4E | 507-0113-2 | 44 | 109 | 101 | 93 | 89 | 84 | 93 |
| CR7C-44DB-4DS | 507-0126-4 | | | | | | | |
| CR7C-56DB-4E | 507-0114-5 | 56 | 133 | 125 | 117 | 113.5 | 108 | 117 |
| CR7C-56DB-4DS | 507-0127-7 | | | | | | | |

◆PCB Dimensions

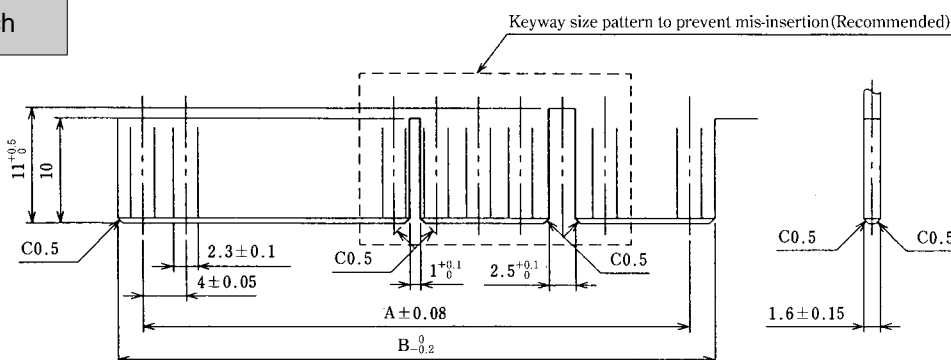
3.96 pitch



| Number of Contacts | 12 | 20 | 30 | 36 | 44 | 56 | 72 | 80 |
|--------------------|------|-------|-------|-------|-------|--------|--------|--------|
| A | 19.8 | 35.64 | 55.44 | 67.32 | 83.16 | 106.98 | 138.68 | 154.44 |
| B | 27.8 | 43.6 | 63.4 | 75.3 | 91.2 | 114.8 | 146.6 | 162.5 |

Note: Using the polarizing key prevents mis-insertion in the printed board.
To use the polarizing key, insert the polarizing key so as to hit the mold bottom.

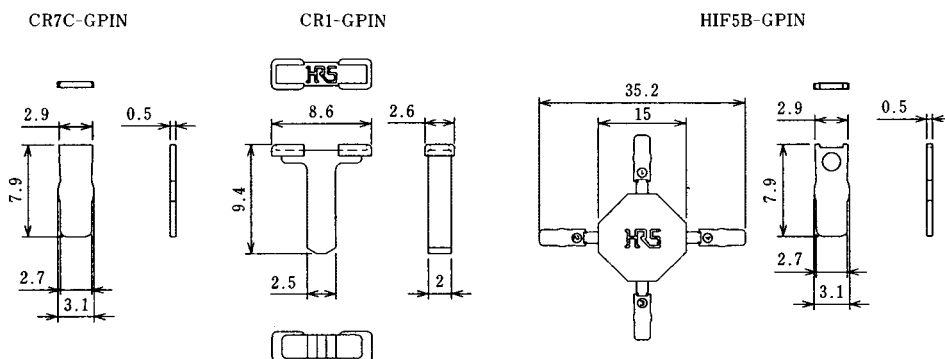
4mm pitch



| Number of Contacts | 20 | 28 | 36 | 44 | 56 |
|--------------------|------|------|------|------|-------|
| A | 36 | 52 | 68 | 84 | 108 |
| B | 40.8 | 56.8 | 72.8 | 88.8 | 107.8 |

Note: Using the polarizing key prevents mis-insertion in the printed board.
To use the polarizing key, insert the polarizing key so as to hit the mold bottom.

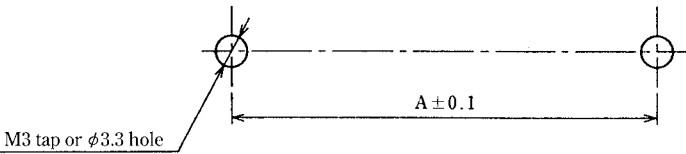
■Polarizing Key



| Part Number | CL No. | Material | Color |
|-------------|------------|-------------|-------|
| CR7C-GPIN | 507-0055-8 | Poly-acetal | White |
| CR1-GPIN | 501-0030-9 | ABS | Gray |
| HIF5B-GPIN | 564-0052-4 | PBT | Beige |

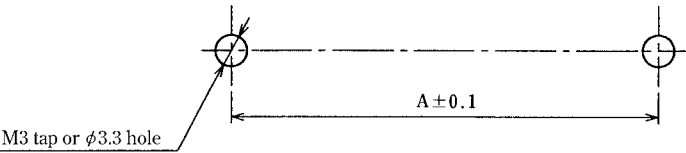
◆PCB Cutouts

3.96 pitch



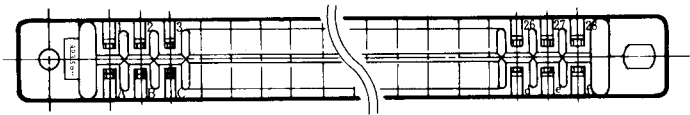
| Number of Contacts | 12 | 20 | 30 | 36 | 44 | 56 | 72 | 80 |
|--------------------|------|------|------|------|-------|-----|-----|-----|
| A | 38.9 | 54.8 | 74.6 | 86.5 | 102.4 | 126 | 158 | 174 |

4mm pitch



| Number of Contacts | 20 | 30 | 36 | 44 | 56 |
|--------------------|----|----|----|-----|-----|
| A | 50 | 67 | 84 | 101 | 125 |

◆Contact No. Alignment List



Note 1. To use alphabetic symbols, following 8 alphabetic characters are not used.
G, I, O, Q, g, i, o, q

Note 2. The above pattern is viewed from the contact (connection) side.