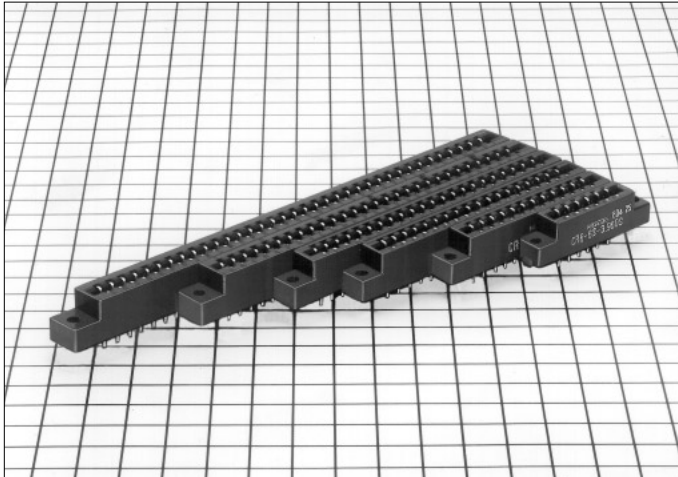
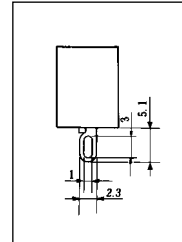


# 3.96mm Pitch Card Edge Connector

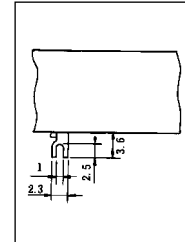
## CR6 Series



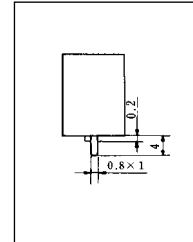
### Connection Method



Eyelet



Open End

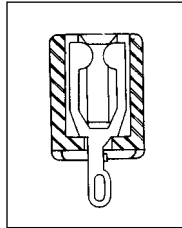


Through hole

### ■Features

#### 1. Contact Type

Uses the tuning fork contact, where the contact pitch is 3.96mm.



#### 2. Variation in number of contacts

6, 10, 12, 15, 18, 22, 28, 36 contacts are available.

#### 3. Connection Type

Eyelet, open end 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: 5A<br>Voltage rating: 600V AC | Operating Temperature Range: -30 to +85°C (Note 1)<br>Operating Humidity Range: 40 to 80% | Storage Temperature Range: -10 to +60°C (Note 2)<br>Storage Humidity Range: 40 to 70 (Note 2) |
|--------|-----------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|--------|-----------------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|

| Item                            | Specification                                       | Condition                                                                                              |
|---------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 1.Insulation Resistance         | 5000M ohms min.                                     | 500V DC                                                                                                |
| 2.Withstanding Voltage          | No flashover or insulation breakdown.               | 1800V AC/1 minute.                                                                                     |
| 3.Contact Resistance            | 6m ohms max.                                        | 1A                                                                                                     |
| 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 ohms min.              | 96 hours at temperature of 40°C and humidity of 90% to 95%                                             |
| 6.Temperature Cycle             | No damage, cracks, or parts looseness.              | (-65°C : 30 minutes→15 to 35°C: 5 minutes max.→125°C : 30 minutes→15 to 35°C: 5 minutes max.) 5 cycles |
| 7.Durability (Mating/un-mating) | Contact resistance: 6m 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 | Dieallyphtalate | Blue        | UL94V-0 |
| Contact   | Copper alloy    | Gold plated |         |

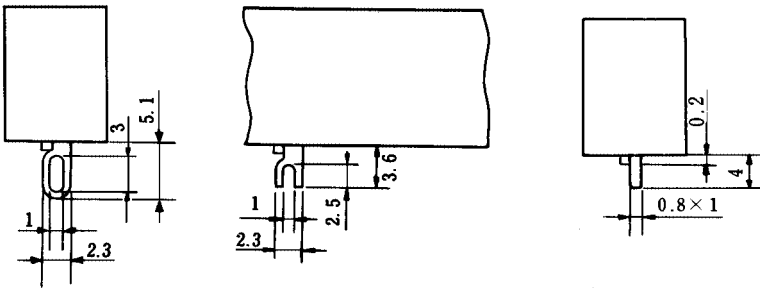
Ordering Information

CR6 - 22S - 3.96 E

1 2 3 4

|                                                      |                                                                                   |
|------------------------------------------------------|-----------------------------------------------------------------------------------|
| 1 Series Name : CR6                                  | 4 Contact type<br>E : Eyelet type<br>OE : Open end type<br>DS : Through hole type |
| 2 Number of contacts : 6, 10, 12, 15, 18, 22, 28, 36 |                                                                                   |
| 3 Contact pitch : 3.96mm                             |                                                                                   |

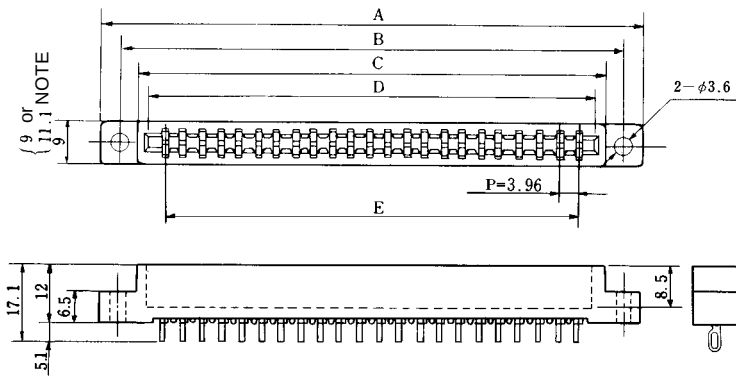
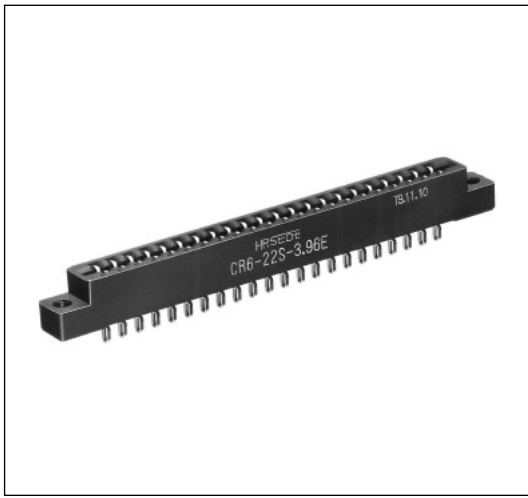
Contact Type



(1) Eyelet

(2) Open End

(3) Through hole

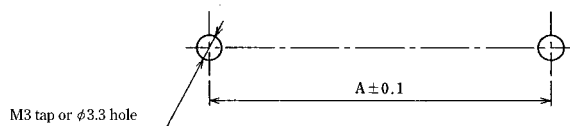


Unit: mm

| Part Number    | CL No.     | Number of Contacts | A     | B     | C     | D     | E      |
|----------------|------------|--------------------|-------|-------|-------|-------|--------|
| CR6- 6S-3.96E  | 506-0019-8 | 6                  | 45    | 38.9  | 31.47 | 28    | 19.8   |
| CR6- 6S-3.96DS | 506-0022-2 |                    |       |       |       |       |        |
| CR6-10S-3.96E  | 506-0001-2 | 10                 | 61    | 54.8  | 47.3  | 43.8  | 35.64  |
| CR6-10S-3.96DS | 506-0013-1 |                    |       |       |       |       |        |
| CR6-12S-3.96E  | 506-0023-5 | 12                 | 68.8  | 62.7  | 55.27 | 51.7  | 43.56  |
| CR6-12S-3.96DS | 506-0026-3 |                    |       |       |       |       |        |
| CR6-15S-3.96E  | 506-0002-5 | 15                 | 81    | 74.6  | 67.2  | 63.6  | 55.44  |
| CR6-15S-3.96DS | 506-0014-4 |                    |       |       |       |       |        |
| CR6-18S-3.96E  | 506-0003-8 | 18                 | 93    | 86.5  | 79    | 75.5  | 67.32  |
| CR6-18S-3.96OE | 506-0007-9 |                    |       |       |       |       |        |
| CR6-18S-3.96DS | 506-0015-7 |                    |       |       |       |       |        |
| CR6-22S-3.96E  | 506-0004-0 | 22                 | 109   | 102.4 | 95    | 91.3  | 83.16  |
| CR6-22S-3.96OE | 506-0008-1 |                    |       |       |       |       |        |
| CR6-22S-3.96DS | 506-0016-0 |                    |       |       |       |       |        |
| CR6-28S-3.96E  | 506-0031-3 | 28                 | 133.7 | 126.1 | 118.2 | 115.1 | 106.98 |
| CR6-28S-3.96OE | 506-0032-6 |                    |       |       |       |       |        |
| CR6-28S-3.96DS | 506-0034-1 |                    |       |       |       |       |        |
| CR6-36S-3.96E  | 506-0027-6 | 36                 | 166   | 158   | 150   | 146.8 | 138.66 |
| CR6-36S-3.96DS | 506-0030-0 |                    |       |       |       |       |        |

NOTE : 11.1mm for 28, 36 contacts

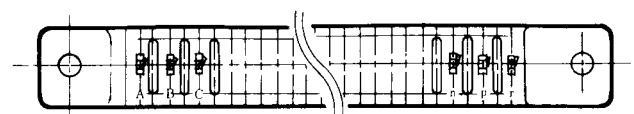
## ◆PCB Cutouts



Unit: mm

| Number of Contacts | 6    | 10   | 12   | 15   | 18   | 22    | 28    | 36  |
|--------------------|------|------|------|------|------|-------|-------|-----|
| A                  | 38.9 | 54.8 | 62.7 | 74.6 | 86.5 | 102.4 | 126.1 | 158 |

## ◆Contact No. Alignment List

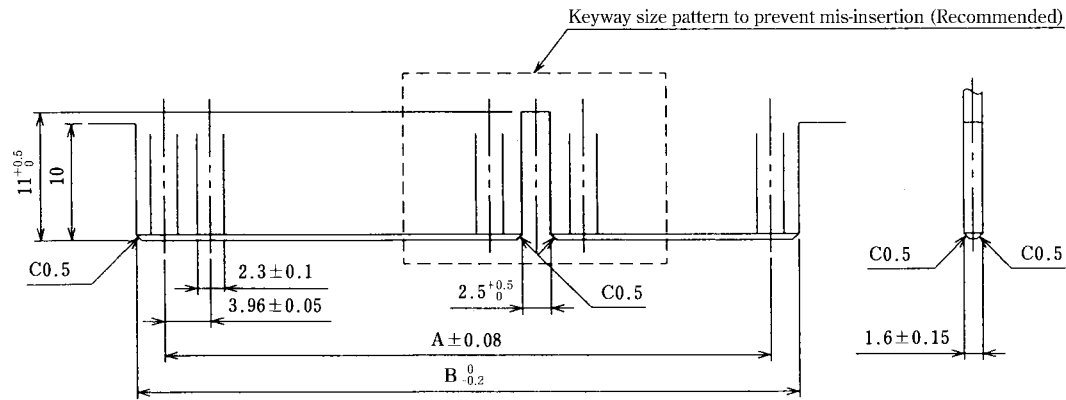


NOTE 1 : To utilize alphabetic symbols, following 8 alphabetic characters are not used.

G, I, O, Q, g, i, o, q

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

◆PCB Dimensions



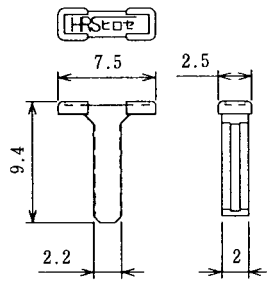
Unit: mm

| Number of Contacts | 6    | 10    | 12    | 15    | 18    | 22    | 28     | 36     |
|--------------------|------|-------|-------|-------|-------|-------|--------|--------|
| A                  | 19.8 | 35.64 | 43.56 | 55.44 | 67.32 | 83.16 | 106.98 | 138.68 |
| B                  | 27.8 | 43.6  | 51.5  | 63.4  | 75.3  | 91.1  | 114.9  | 146.6  |

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

CR6-GPIN(A)



| Part Number  | CL No.     | Material | Color |
|--------------|------------|----------|-------|
| CR6-GPIN (A) | 506-0018-5 | ABS      | Gray  |