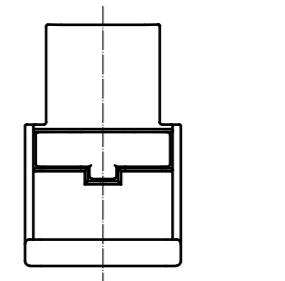
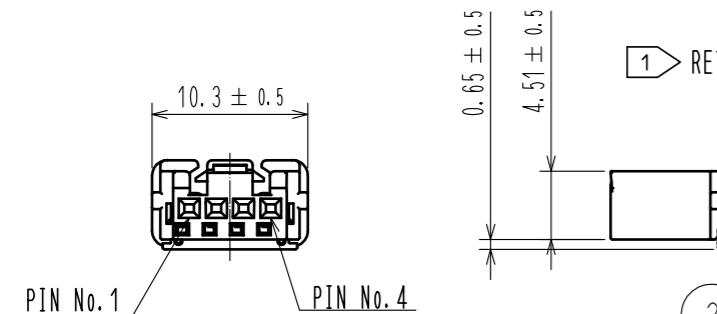
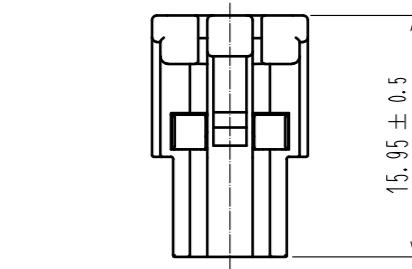


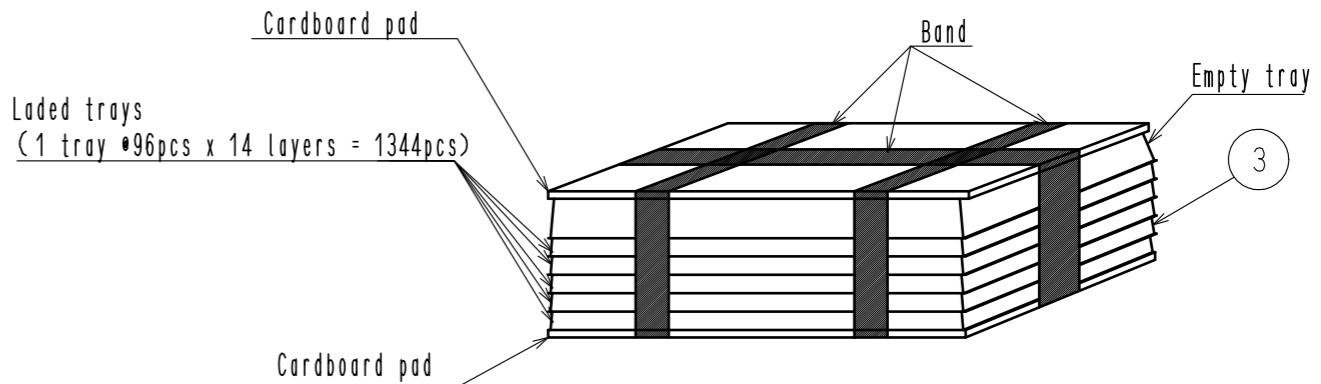
ELV, RoHS COMPLIANT



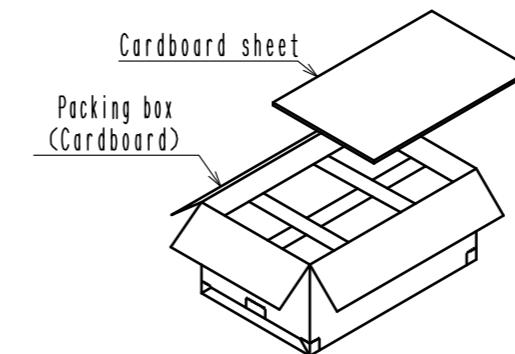
NOTE.  
 1 RETAINER IS TEMPORARILY ASSEMBLED INTO HOUSING.  
 2 RETAINER TO BE COMPLETELY ASSEMBLED INTO POSITION  
 AFTER CONTACT IS INSERTED.

## Packaging Specification

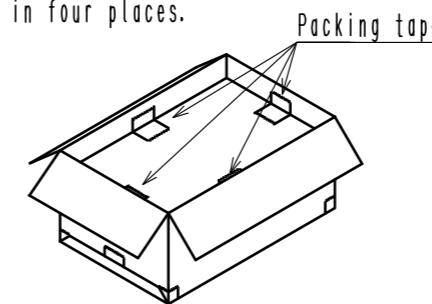
(1) After placing parts in trays, stack in fifteen layers. (Top layer will be empty.)



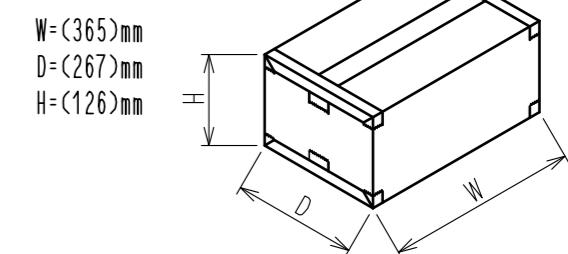
(2) Place bound trays in box, then place cardboard sheet on top.



(3) Using packing tape, affix sheet of cardboard to box in four places.



(4) Place lid on box and seal with packing tape.

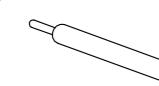


| NO. | UNIT                            | DESCRIPTION            |          | REVISIONS      | DESIGNED          | CHECKED | DATE           |
|-----|---------------------------------|------------------------|----------|----------------|-------------------|---------|----------------|
|     | mm                              |                        |          | 2 : 1          | 4                 | 3       | DIS-T-00017464 |
| NO. | MATERIAL                        | FINISH                 | REMARKS  | NO.            | MATERIAL          | FINISH  | REMARKS        |
| 2   | PA                              | DARK GRAY UL94V-0      |          |                |                   |         |                |
| 1   | PA                              | BLACK UL94V-0          |          | 3              | POLYSTYRENE       |         |                |
| 5   | HIROSE<br>ELECTRIC<br>CO., LTD. | APPROVED : HK. UMEHARA | 20190426 | DRAWING<br>NO. | EDC-386026-00-00  |         |                |
|     |                                 | CHECKED : HK. UMEHARA  | 20190426 | PART<br>NO.    | ZG05L2-4S-1.8HU/R |         |                |
|     |                                 | DESIGNED : YH. MAMADA  | 20190426 | CODE<br>NO.    | CL0754-2204-0-00  |         |                |
|     |                                 | DRAWN : DS. HIROWATARI | 20190426 |                |                   |         |                |

**HRS**  
HIROSE  
ELECTRIC  
CO., LTD.

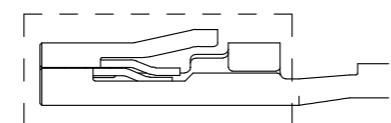
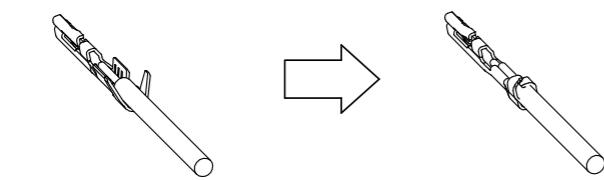
## 2. ASSEMBLY PROCESS

① Strip the cable



Note: Please refer to the Crimp Quality Standard for details on strip length.

② Crimp wire in terminal ZG05A-2224SCF(##)



No touch area

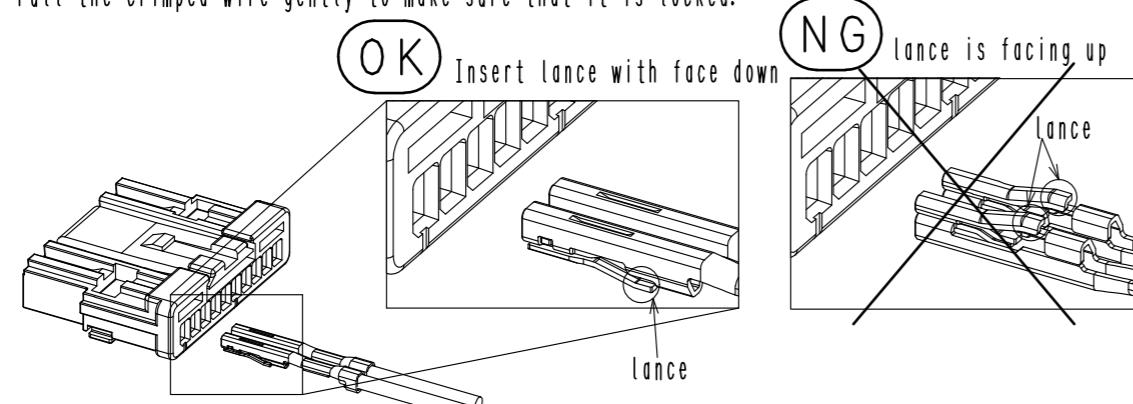
NOTE 1: Please use the Hirose crimp tool.

NOTE 2: Please refer to the Crimp Quality Standard to confirm terminal compatibility and crimp condition check.

NOTE 3: Please refer to the Crimp Condition List to confirm crimp height and insulation height.

③ Insert contact and push until a click is heard.

Pull the crimped wire gently to make sure that it is locked.

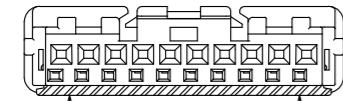


Note: Inserting the terminal section while swinging the terminal up and down in the housing insertion hole, will deform the lance and it will not be possible to lock it. In that case, use a new terminal and do not reuse the damaged one.

④ For preset position, press the retainer until a click is heard.

Press the retainer on one side, and then on the other side, to bring it to set position. (Refer to the attached sheet)

Retainer preset



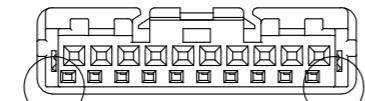
Press the retainer on one side, and then on the other side.

\*If left and right side are pushed simultaneously, it may damage the retainer.

\*Pressing the middle of the retainer may not lock it correctly.

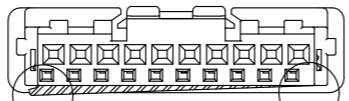
Retainer set

After setting the retainer, please inspect the housing from the view as shown below, and confirm that the retainer is not protruding from any side.



\*Retainer set

OK

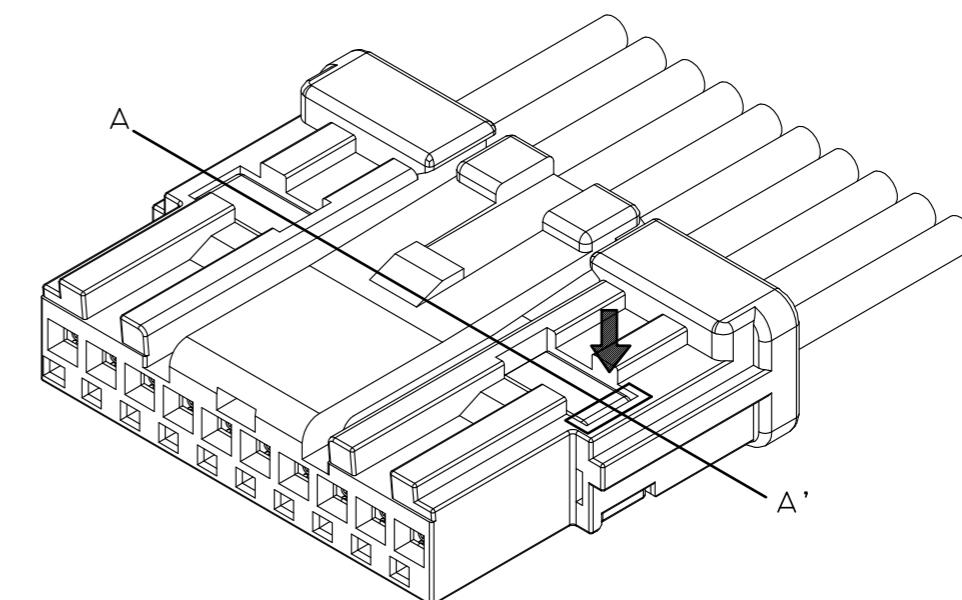


\*Retainer half engaged

NG

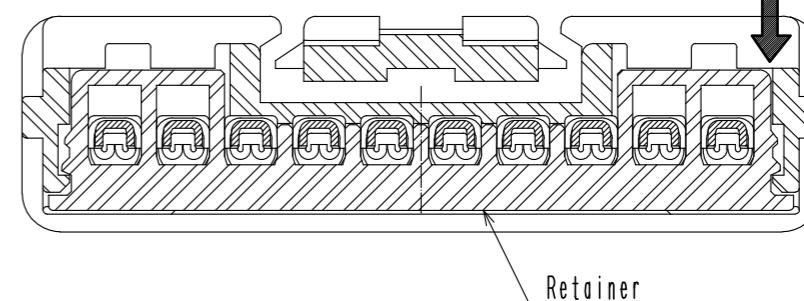
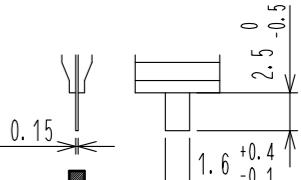
## 3. REPAIR PROCESS

① Using a thin plate, disengage the retainer lock and return the retainer to the preset position.

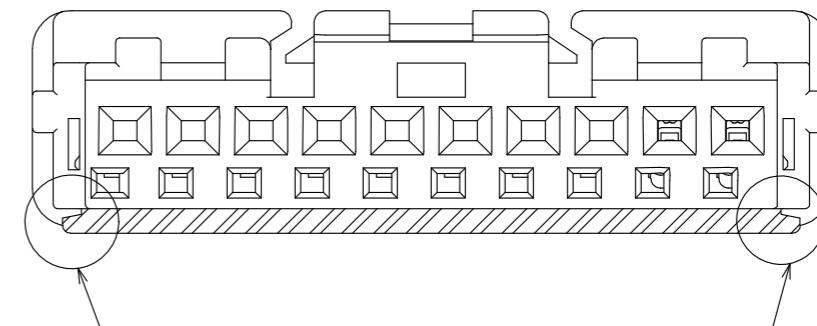


A-A' Section

Insert a thin plate into the gap between the retainer and the housing and push it until it releases.



Retainer



Once the exposed part of retainer, it returns to set position.

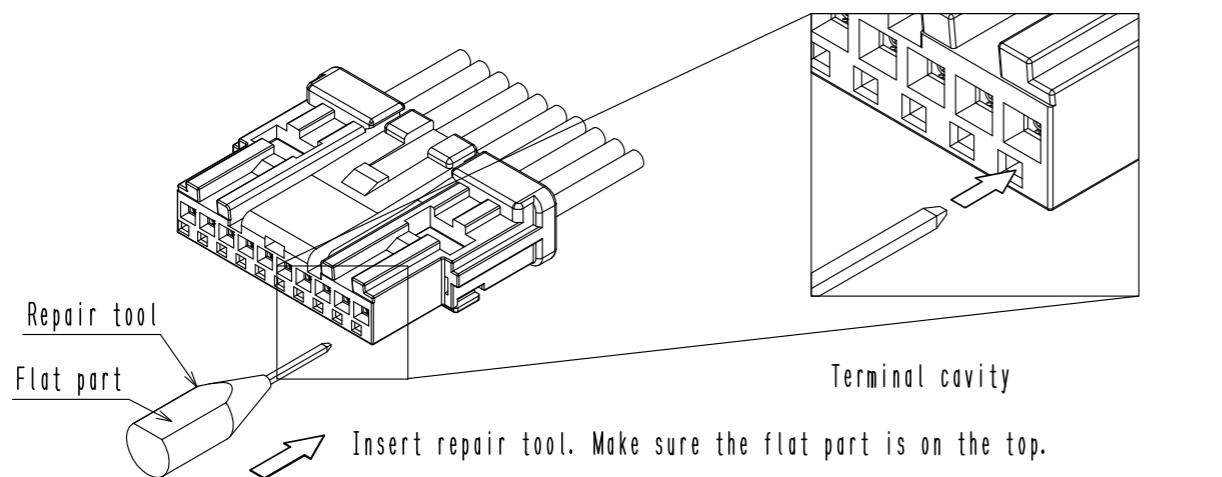


DRAWING NO. EDC-386026-00-00  
PART NO. ZG05L2-4S-1.8HU/R  
CODE NO. CL0754-2204-0-00

4 2 5

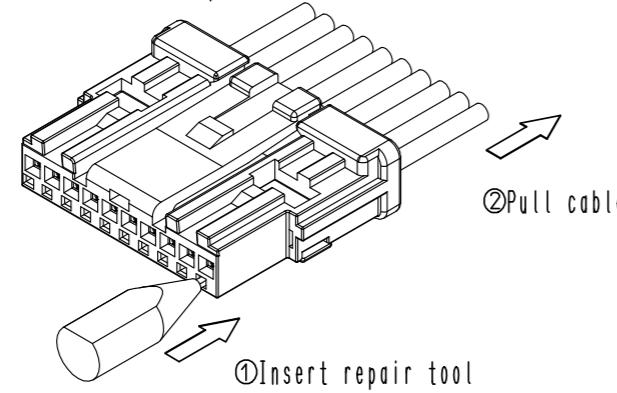
### 3. REPAIR PROCESS

② Insert the repair tool into the terminal cavity and push until contact with the terminal is made. Maintain this position and remove the terminal.



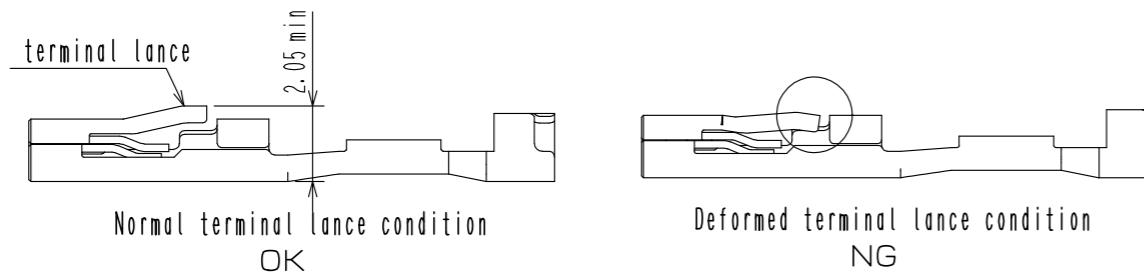
Note: Be careful not to insert the repair tool into the connector pin insertion hole.  
※ If inserted, contact part will be deformed and it will result on continuity failure.  
Use new terminal without reuse.

#### Condition of inserted repair tool



Note: Do not reuse the connectors. Please use a new connector after repairing.

Note: Do not reuse the terminal in case the lance has a transformation. Use a new terminal.



### 4. Other / Notes

- 1) Do not touch the terminal contact points or the interior of the barrel.
- 2) When handling the terminal, please wear gloves in order to prevent corrosion.
- 3) Placing items on top of a terminal or dropping a terminal may result in deformity or contamination. Please handle terminals with care.
- 4) In case the terminals become tangled, please do not pull or bend them apart. Please untangle them carefully.
- 5) Use caution when handling terminals in order to avoid deformation.
- 6) Make sure that the terminals of crimped cables do not become entangled. When bundling or stacking cables, please prevent the terminals from being subjected to any external force.
- 7) Use caution to ensure that the part is not subjected to any large impacts.
- 8) Avoid storing in dusty areas.
- 9) Do not place wire harnesses on the floor.
- 10) Refrain from any handling that may result in terminal damage or deformation.
- 11) In case any released retainer is found, please scrap both retainer and housing.
- 12) Do not use the housing in case it drops.

#### • Dedicated tool summary

##### Crimped Terminal connection Tool - Part Number Summary

| Applicable Part     | Connection Tool Name | Connection Tool Part Number |
|---------------------|----------------------|-----------------------------|
| ZG05A-2224SC(F)(##) | applicator           | AP105-ZG05A-2224S           |

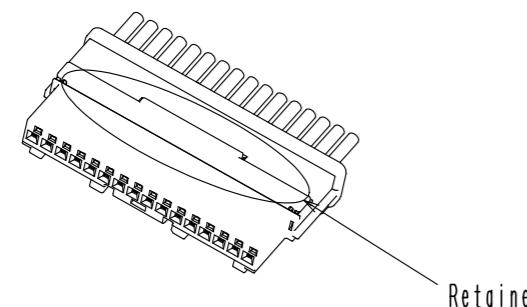
(##) = specification number

##### Crimped Terminal Repair Tool - Part Number Summary

| Applicable Part     | Repair Tool Name | Repair Tool Part Number |
|---------------------|------------------|-------------------------|
| ZG05A-2224SC(F)(##) | ZG05A/RE-MD      | 902-5146-0              |

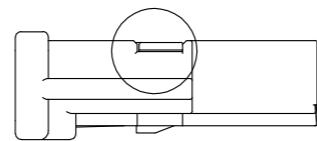
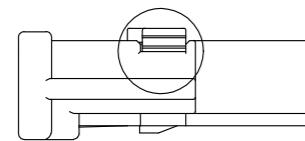
(##) = specification number

## Precaution note: Retainer insertion procedure



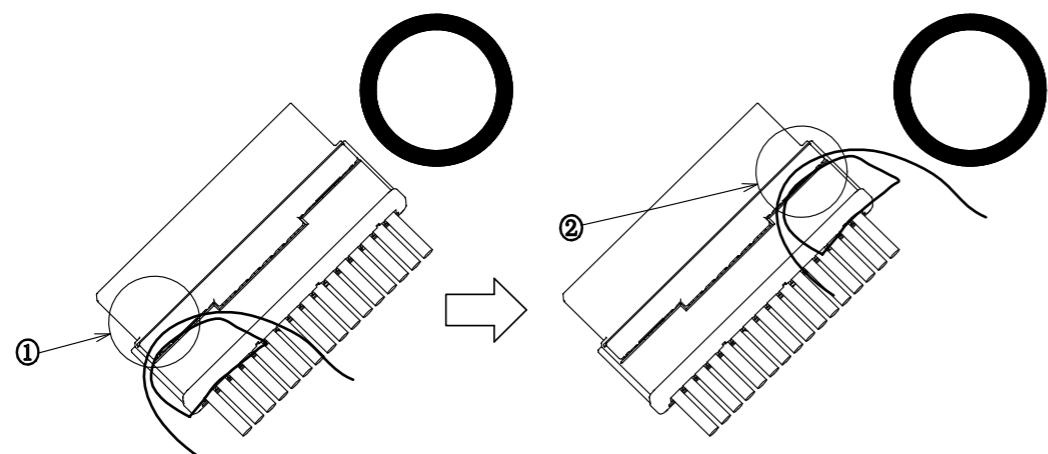
Retainer preset position

Retainer set position

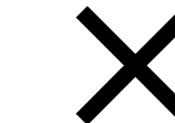


## Precautions concerning retainer insertion procedure

- ◆ Manually push the retainer edges, starting from the left to the right side, or in the following order: ① → ②.



DO NOT Push the center of the retainer



DO NOT Simultaneously Push the side edges of the retainer



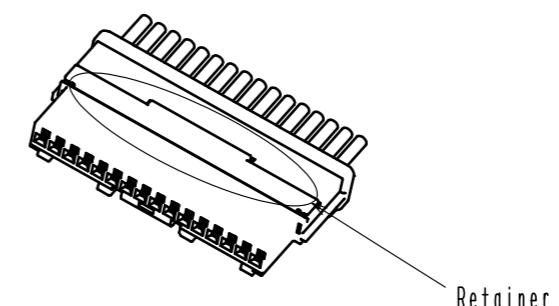
DO NOT Simultaneously Push right &amp; left edges with the finger bellies



## attachment sheet

## attachment sheet 2

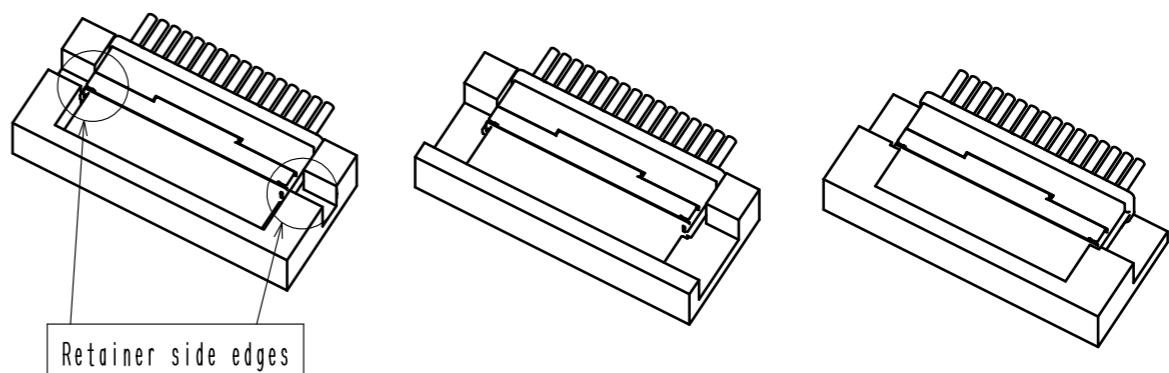
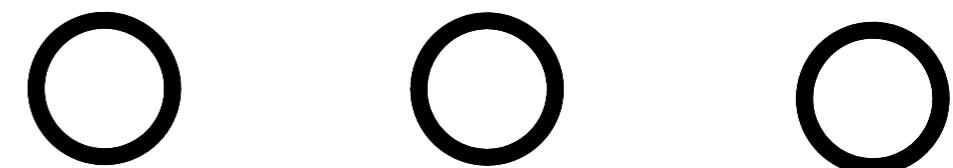
## Precaution : Retainer fixture base design



Retainer

## Precautions concerning retainer setting on the fixture base

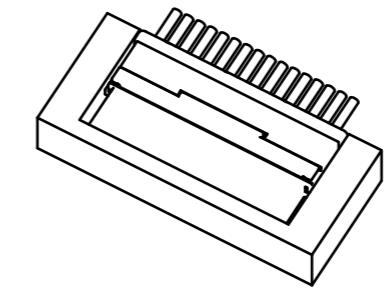
- ◆ The fixture base should have a design which provides clearance on the side edges of the retainer. Using a fixture base that blocks down the side edges of the retainer, may damage the female housing.



DO NOT Use any fixture base which surrounds the totality of the housing



DO NOT Use any fixture base which blocks the side edges of the retainer



## CRIMP QUALITY STANDARD

## 1. Scope

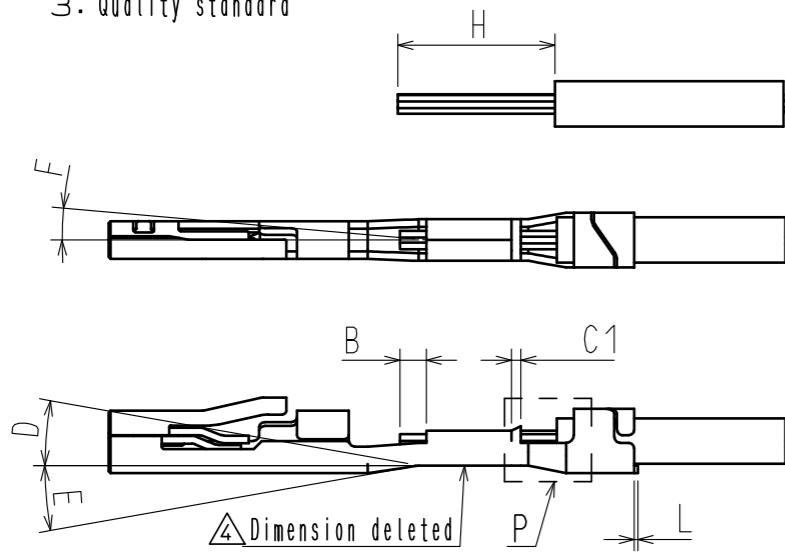
This technical specification prescribes crimp condition of ZG05A-2224SCF (CL754-2001-0)

## 2. Applicable wire

- Applicable wire size : 0.22~0.35SQ

⚠ Applicable insulation size :  $\phi 1.1 \sim \phi 1.4$

## 3. Quality standard



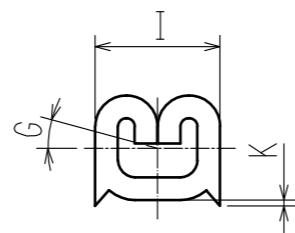
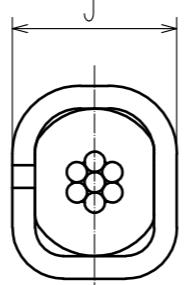
| CHECK POINT   | MEASURE (mm)                 |
|---|------------------------------|
| COVER LOCATION  | A 0.3~1.3                    |
| LOCATION OF TIP OF THE CORE                                   | B 0.1~1.0                    |
| BELL-MOUTH  | C1 0.1~0.4                   |
|   | C2 -                         |
| BEND-UP   | D 3° max                     |
| BEND-DOWN   | E 3° max                     |
| TWIST   | F $\pm 2^\circ$ max          |
| ROLLING   | G $\pm 5^\circ$ max          |
| STRIP LENGTH  | H 3.5~4.0                    |
| WIDTH   | WIRE BARREL I 1.36 max       |
|   | INSULATION BARREL J 1.47 max |
| HEIGHT OF METAL CUT-OUT TEETH                                 | K 0.15 max                   |
| CUT-OFF TAB   | L 0.1 max                    |
| DIFFERENCE IN LEVEL BETWEEN WIRE BARREL AND INSULATION BARREL | M 0.2 max                    |

⚠ Table deleted

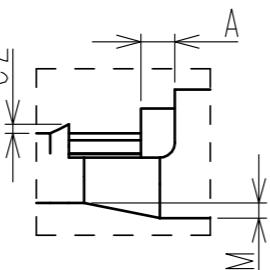
Note1. Refer to a crimp condition list for the crimp height.

Note2. There is a possibility that a terminal is involved in covering and crowded by the crimping, but it's no problem on the product function.

Note3. Please confirm that the terminal which did crimp enters a housing.

WIRE BARREL  
CROSS-SECTION IMAGEINSULATION BARREL  
CROSS-SECTION IMAGE

P ENLARGED VIEW



DRAWING NO. EDC-386026-00-00  
PART NO. ZG05L2-4S-1.8HU/R  
CODE NO. CL0754-2204-0-00

⚠ 5/5