Title of Document: **HANDLING MANUAL**	Issue No. CHM-1-2149	Rev. 2
Customer:	Issue date: July 02, 2004	
Title subject: GH Connector (Mating/Unmating Method)	Revision date: October 23, 2019	

This manual describes important and required points of mounting GH connector.
Be sure to read this manual thoroughly before using GH connector.

C O N T E N T S

Prepared by:	Checked by:	Reviewed by:	Approved by:
N.Tanaka	*M.Matsunaka*	—	*N.Amemiya*

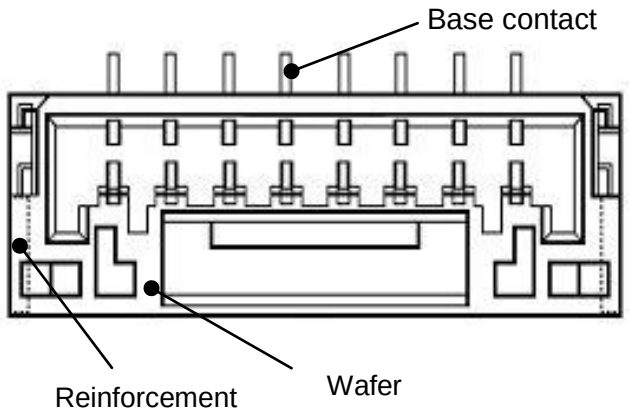
1. Model Number and Part Name

1-1 Model number

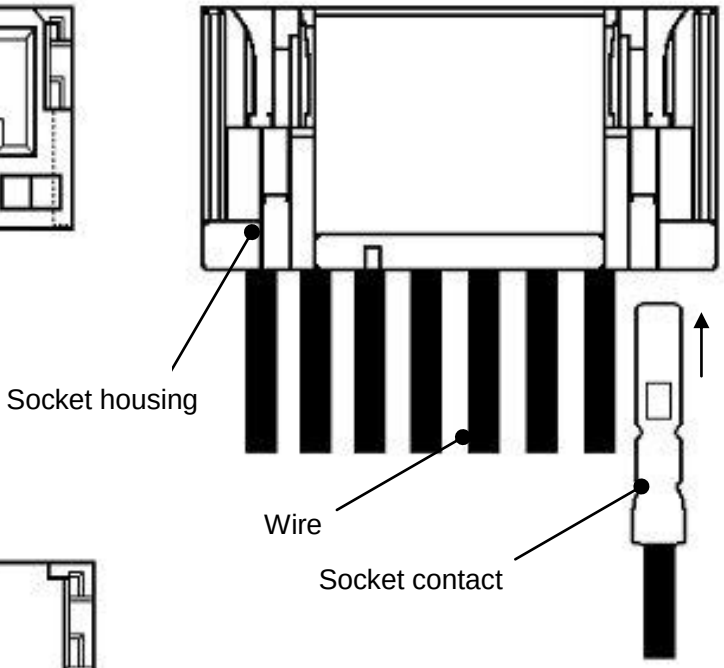
Part name			Model No.
Socket	Housing		GHR-**V-S
	Contact		SSHL-002T-P0.2
Header	Loose piece product	Top entry type	BM**B-GHS (LF)(SN)
		Side entry type	SM**B-GHS (LF)(SN)
	Embossed-taping product	Top entry type	BM**B-GHS-TBT (LF)(SN)(N)
		Side entry type	SM**B-GHS-TB (LF)(SN)

Note 1:Number of circuits in two-digit figure is indicated by asterisk.

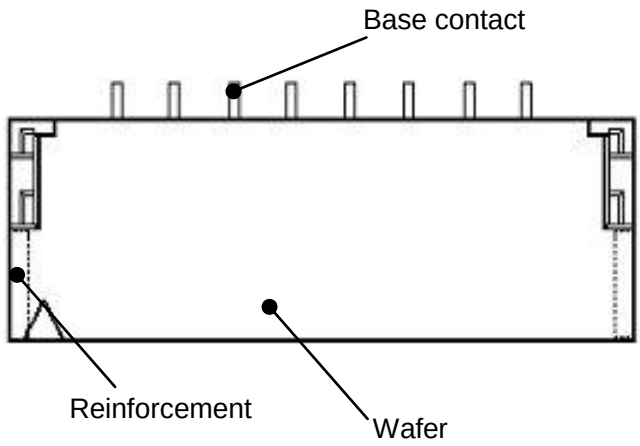
1-2 Part name



Top entry type header



Socket

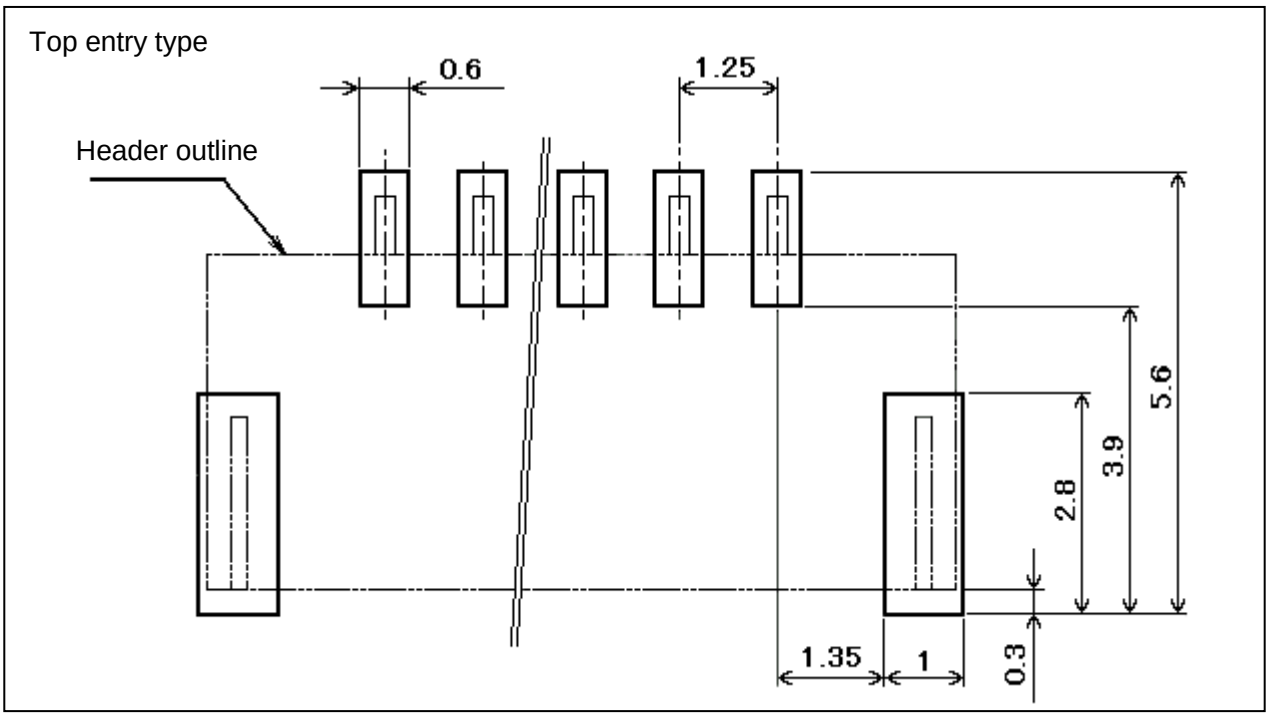


Side entry type header

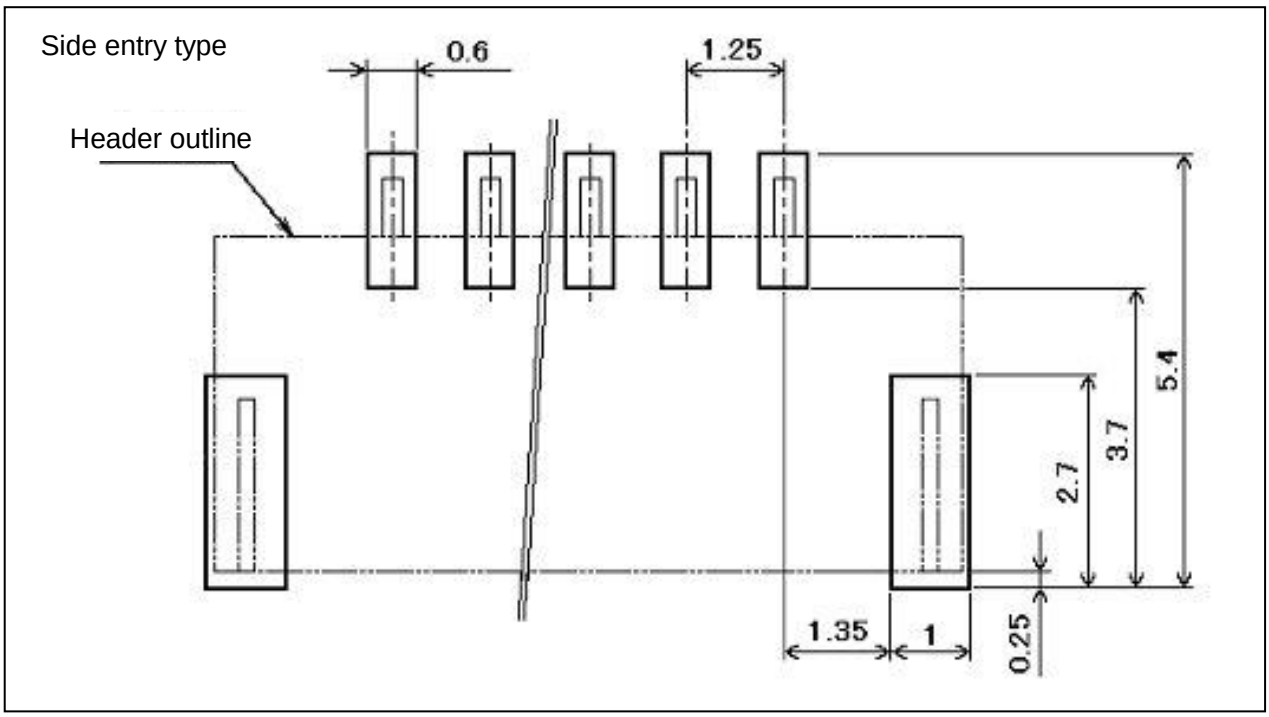
JST	Title subject: GH Connector (Mating/Unmating Method)	No. CHM-1-2149

2. Recommended PC Board Pattern Layout

Top entry type



Side entry type



3. Handling Precautions

3-1 Precautions for mounting connector on PC board

Pay careful attention to the following points for mounting connector on PC board.

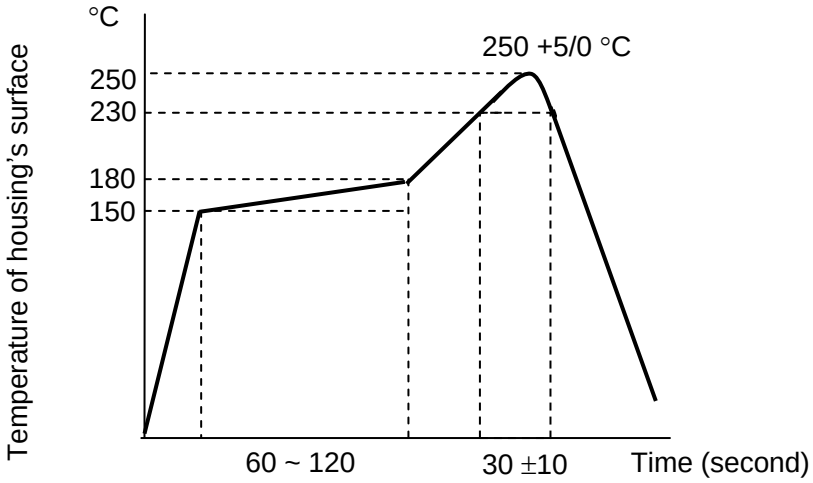
3-1-1 Reflow soldering method

Soldering by following temperature profile is recommended. As recommended reflow temperature condition varies depending on solder paste to be used, evaluate and find adequate condition before production.

Following configuration of metal mask is recommended for mounting operation;

- Blanking part: same area as pad area on PC board
- Thickness: 0.12 to 0.15 mm

When metal mask more than 0.15 mm thickness is used, area of blanking part should be smaller than pad area on PC board, and amount of solder should be properly adjusted.



Temperature profile of reflow soldering

Tenacious heat-resistant polyamide material is used for housing while blister may happen on the housing surface in the process of reflow soldering as per conditions of moisture absorption and reflow soldering. Such “blister” does not cause a deterioration of polyamide material property or connector performance.

3-1-2 Solder iron method

When soldering or resoldering connector on PC board, use a soldering iron with temperature of 350°C at the tip of soldering iron quickly within 3 seconds.
Do not apply external force by pressing soldering iron tip on contact solder tail part.
If done, dismount and exchange connector, and conduct soldering again.
Do not reuse dismounted connector.

3-2 Precautions for mating operation

① In the case of large circuit number, do not mate connector by pressing socket housing at only its both ends as indicated by arrows, because non-mating part may occur partly due to deflection of socket housing.
Be sure to mate connector by pressing the whole of socket housing as shown in Fig.-2.

When mating connector, align the edge of header with socket housing, and mate connector on the same axis as shown in Fig.-2.

② There is a “click” sound (you feel a click) when mating operation is properly completed.
When there is no feeling of a click, there is a possibility that mating is not finished completely.
Conduct mating operation again.
(The number of mating and unmating operation shall be decreased as much as possible.)

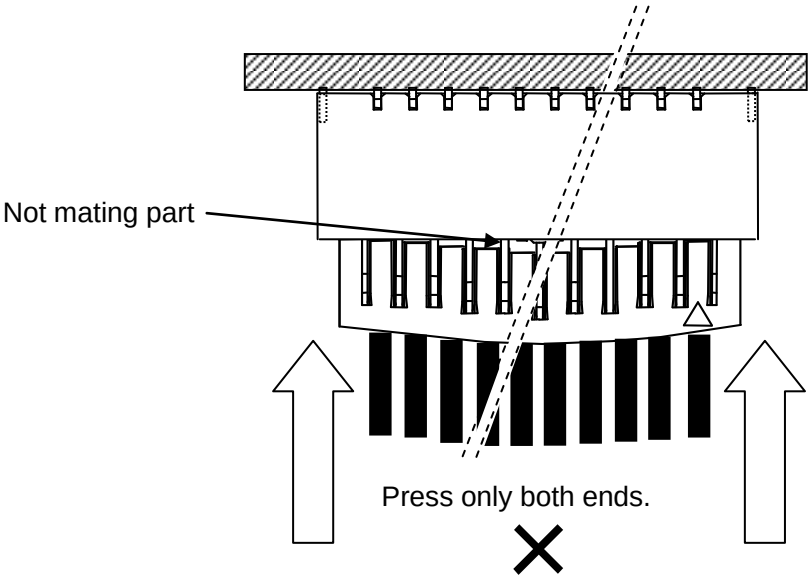


Fig.-1

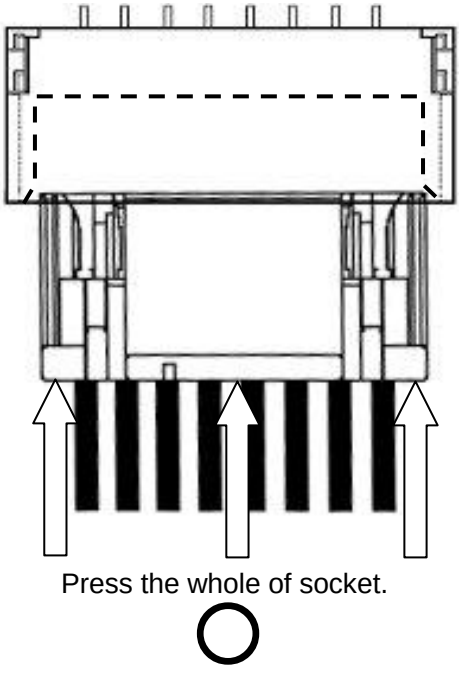


Fig.-2

3-3 Precautions for unmating operation

① Press a protrusion as shown in Fig.-3, hold wire in a bundle and unmate socket housing from header with releasing lock completely.
Do not unmate connector forcibly without releasing lock completely, because such handling may cause deformation of lock part, and breakage of connector.

② Do not unmate socket housing from header from slanting condition as shown in Fig.-4, because socket housing may be deformed.
When socket housing is unmated with holding only several wires at the end of circuit, even if socket housing is extracted in a straight line against mating axis, such handling may cause the same condition as prying connector.

Be sure to hold wires in a bundle, and conduct unmating operation within 20 degrees to each direction with releasing lock completely.

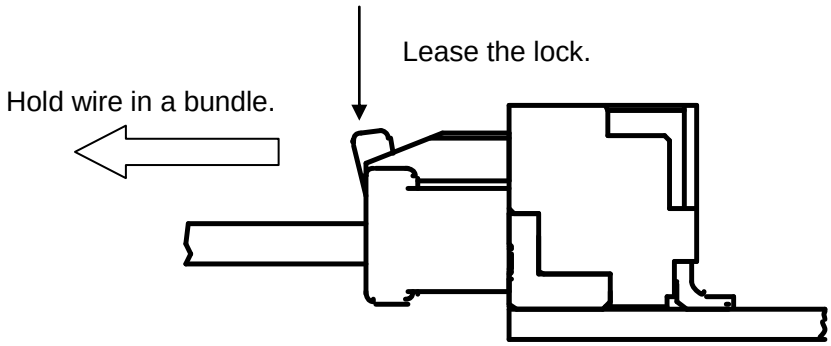
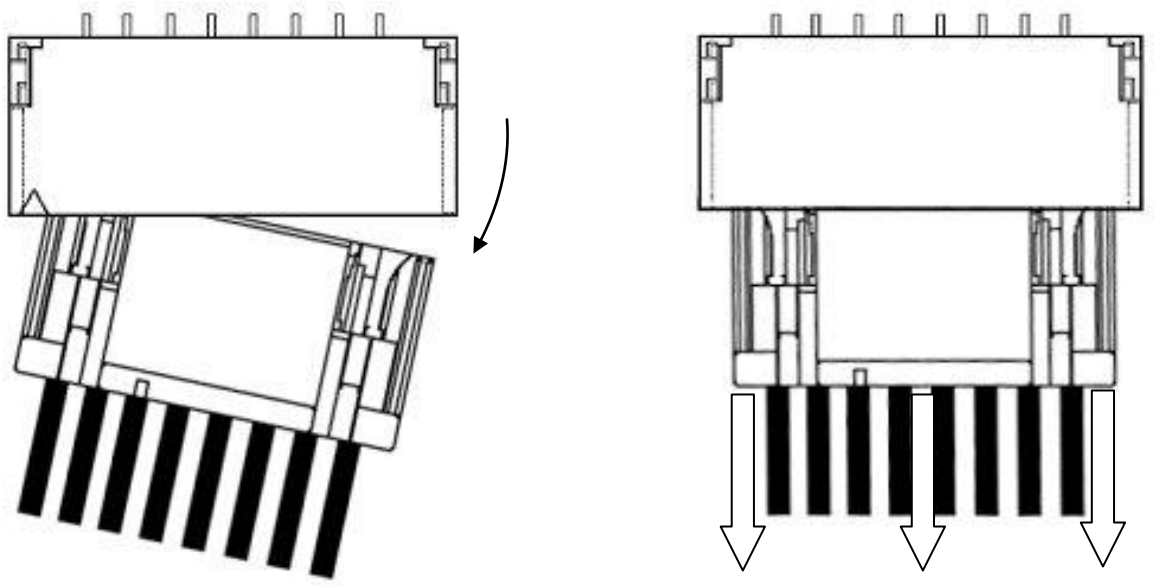


Fig.-3



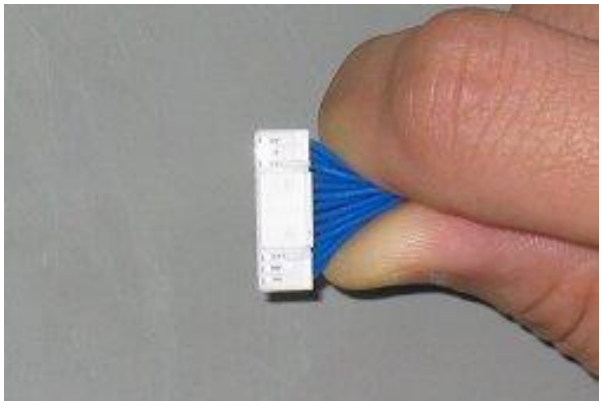
Unmate connector from slanting condition. ×

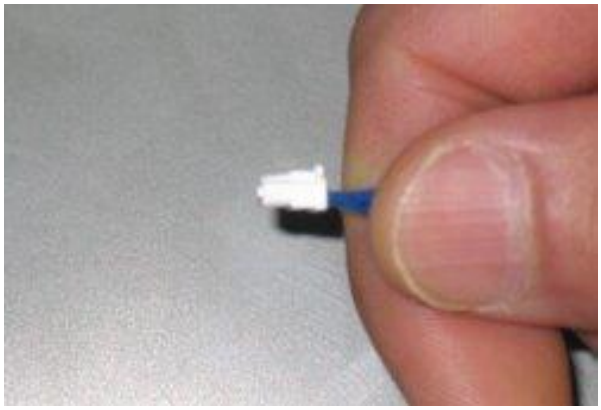
Unmate connector in a straight line. ○

Fig.-4

3-4 Precautions for holding wire

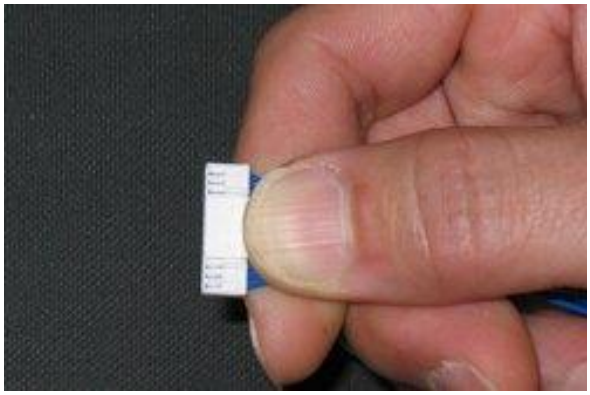
When holding wire in a bundle in connector insertion and withdrawal operation, do not pull wires to the center from the pitch (lateral) direction but hold them vertically during mating operation as below.
(Connector may be deformed and broken to become a sector.)

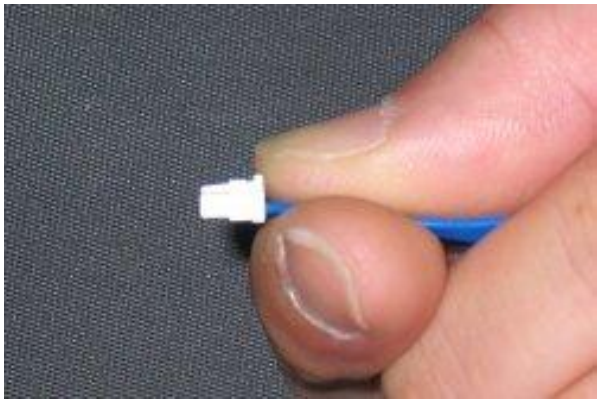




Do not pull wires to the center from the pitch (lateral) direction.

×





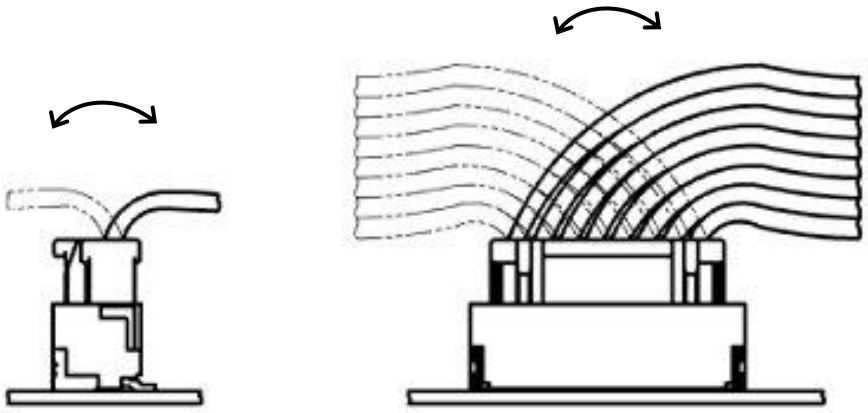
Hold wires vertically.

○

Fig.-5

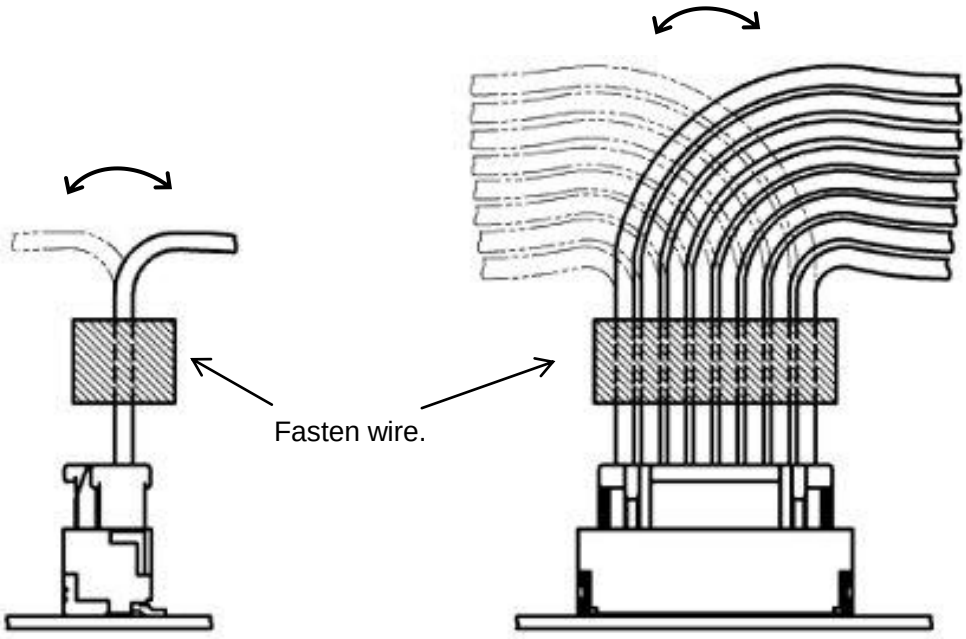
3-5 Precautions for routing of wire

Conduct wire routing carefully so that tension stemmed from wire bending is not loaded on connector.
Do not use GH connector at movable part to the utmost.
Fasten wire not to vibrate contacting part by movement of wire as shown in Fig.-6 when using GH connector at movable part.



In case of that wire moves freely

×



In case of that wire is fastened

○

Fig.-6