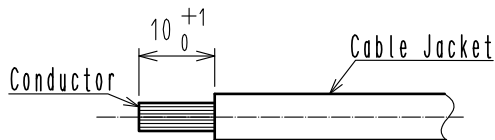


Assembly Sequence

1

Strip the cable jacket to the following dimension.

**【 NOTE 】**

Exercise caution not to damage the jacket and the conductor to prevent from breakdown and conductivity issue.

Crimp termination

①Insert the sleeve of the contact to the female die of the crimp tool and then hold the contact with the tool. At this time please fit the direction of the contact press joint and center of the sleeve into the male die of the tool.

Use our recommended crimp tools shown in the table 1.

Applicable die size of the crimp tool for each the contact is shown in the table 2.

【 NOTES 】

- There might be a difference in the crimp performance with tools, please use our recommendation tools.
- It must not satisfy crimp performance with incorrect die size, please use the correct die size.
- It must not satisfy crimp performance with incorrect die position, please use the correct position.

②Insert the conductor of the cable into the contact.

【 NOTES 】

- Do not cause the space as much as possible between the cable jacket and the contact. (The space:1mm max)
- The cable conductor must not be protruded from the contact to prevent from short circuit.

③Apply force and crimp them until the crimp tool will be open automatically.

④Remove the contact after the crimp tool opens.

2

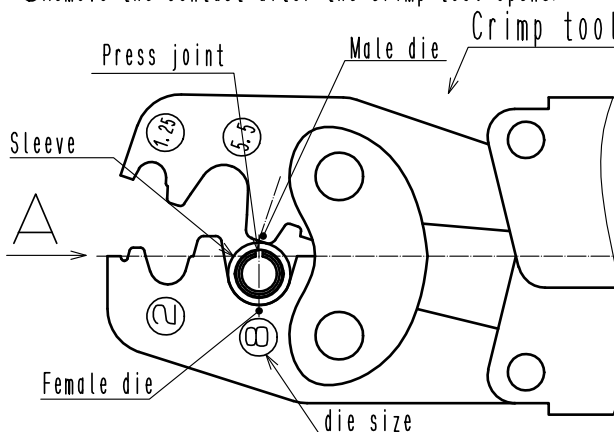
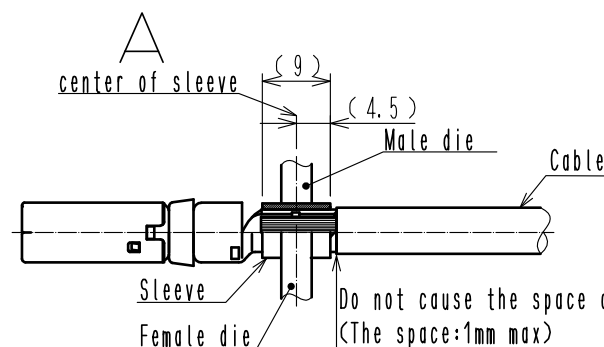


Table 1 Recommended crimp tool
(JIS C 9711 Wire termination tool for interior wiring)

manufacturer	Part No.
Hozan	P-75
Lobtex	AK15A
Nichifu	NH1

Table 2 Contacts and applicable cable and die size

HRS No.	Part No.	Applicable cable size	Applicable die size
CL138-0010-5-01	EM-SC-113(C01)	5.26~5.57mm ²	8
CL138-0011-8-01	EM-PC-113(C01)	5.26~5.57mm ²	8
CL138-0018-7	EM-SC-133	8mm ²	8
CL138-0019-0	EM-PC-133	8mm ²	8
CL138-0024-0-01	EM-SC-143(C01)	8.44~8.92mm ²	8
CL138-0025-2-01	EM-PC-143(C01)	8.44~8.92mm ²	8




Crimped model



COUNT	DESCRIPTION OF REVISIONS	DESIGNED	CHECKED	DATE
3	2 DIS-C-00017304	SY. KONDO	TP. KOMATSU	20240326
名称 TITLE		HRS ヒロセ電機株式会社 HIROSE ELECTRIC CO., LTD.		
EM35M assembly procedure and instruction manual		APPROVED	EJ. KUNII	20131206
		CHECKED	HY. KISHI	20131206
		CHARGED	HS. NAGANO	20131205
		WRITTEN	HS. NAGANO	20131205
技術指定書 TECHNICAL SPECIFICATION		ETAD-C0222		3 1 6

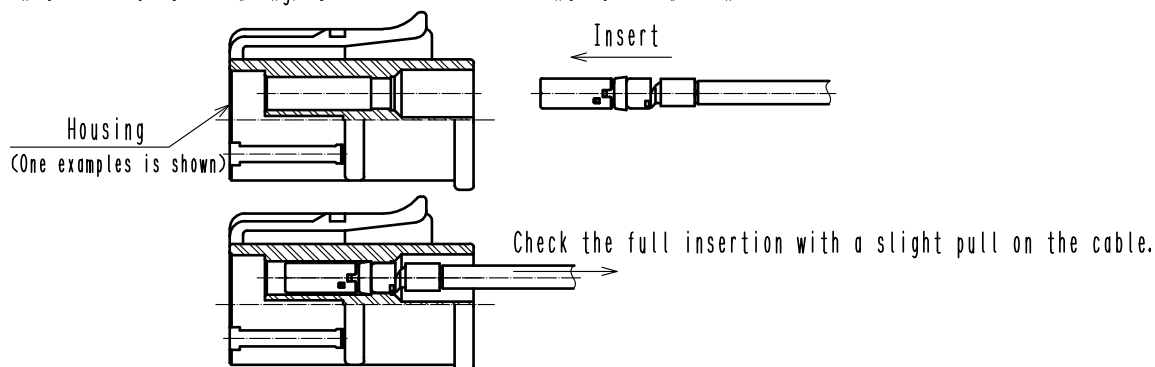
3

①Insert the contact in the housing. Full insertion will be confirmed with audible click and tactile feel. Check full insertion with a slight pull on the cable.

Make sure that the male terminals are also fixed to the housing. 

【NOTE】

If not fixed to the housing, there is a risk of contact failure and fire.



②Check the wiring after insertion the contacts.

In case of miss wiring, please remove the contacts by removal tool and then fix wiring.

Applicable removal tool:EM-8-TP(CL150-0249-3)

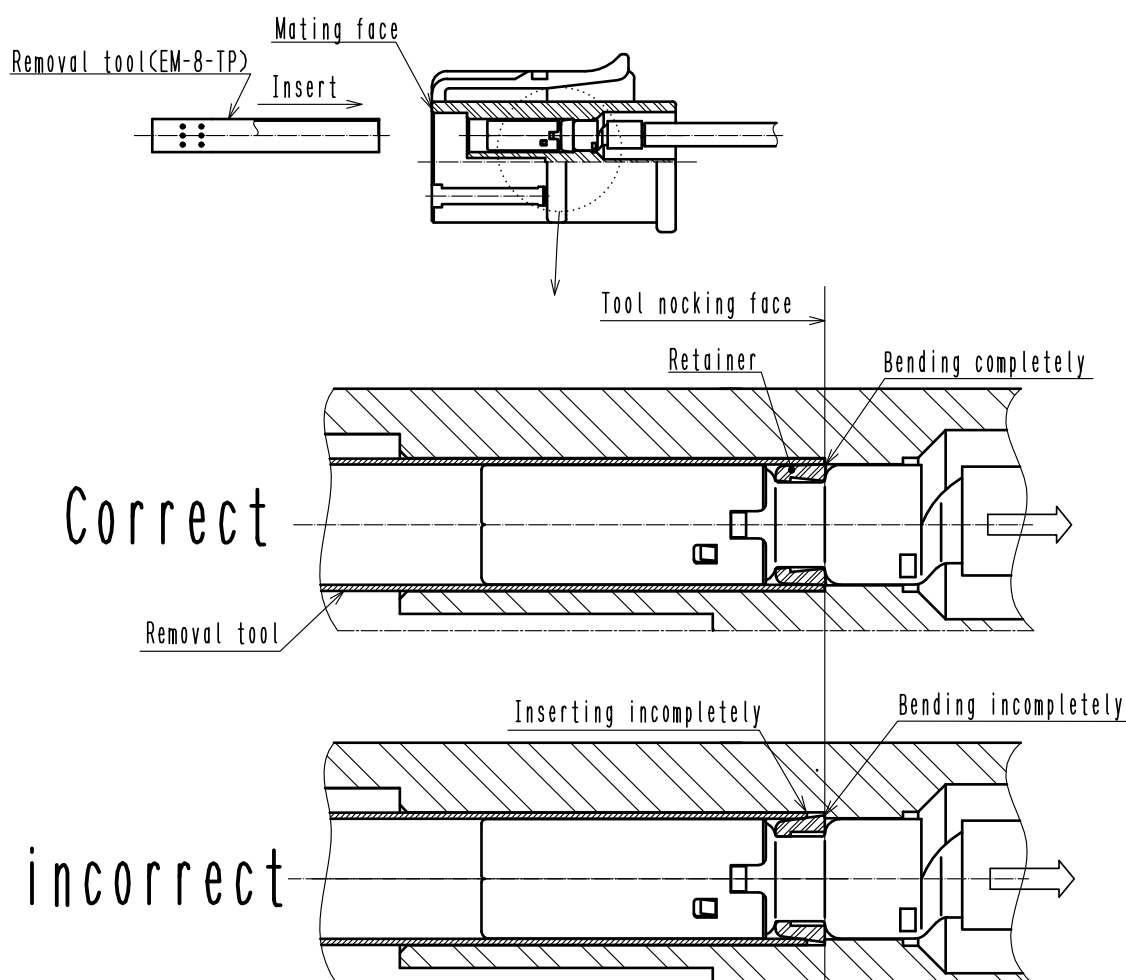
■How to use the removal tool.

①Insert the tool into contact cavity from the mating face until knock on the housing, the retainer is bended by the tool.

②Pull the cable with remaining the tool insertion and remove the contact.
(It is same way to remove for the male and female contact.)

【NOTE】

Please remove the contact after the retainer is bended completely to prevent from destruction.



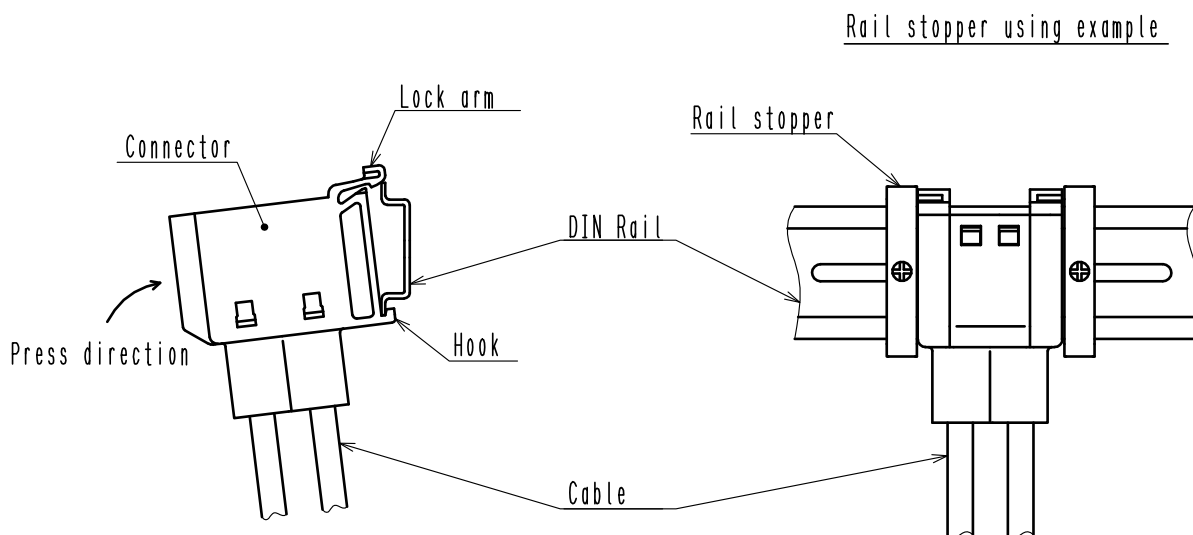
How to Attach to / Detach from DIN Rail

Attachment

①Set the hooks to the rail.

②Press the connector to the rail until the lock arms make click sound and fastened.

By using commercial rail stopper, the connector is stabilized not to slide on the rail.



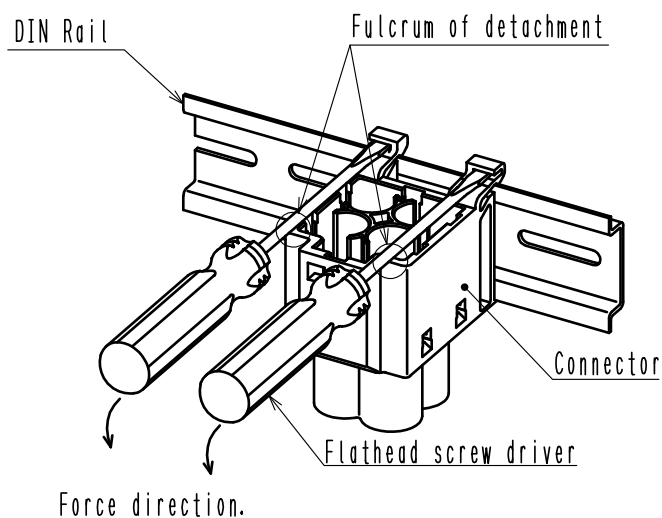
Detachment

①Set two flathead screw drivers to the lock arms.

②Apply even force to the flathead screw drivers at the same time to the direction as shown.

【 NOTE 】

Use 5.5 mm or less head width drivers, or they could also hook the lock arm of adjacent connector and damage it.

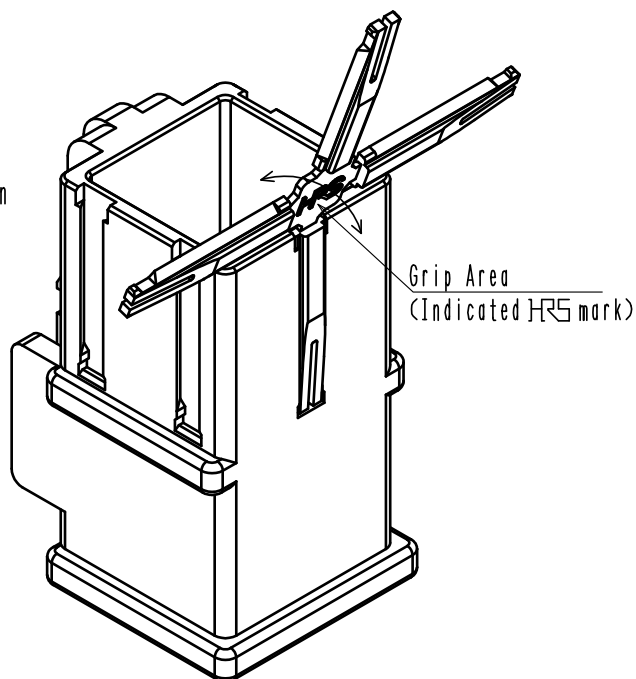
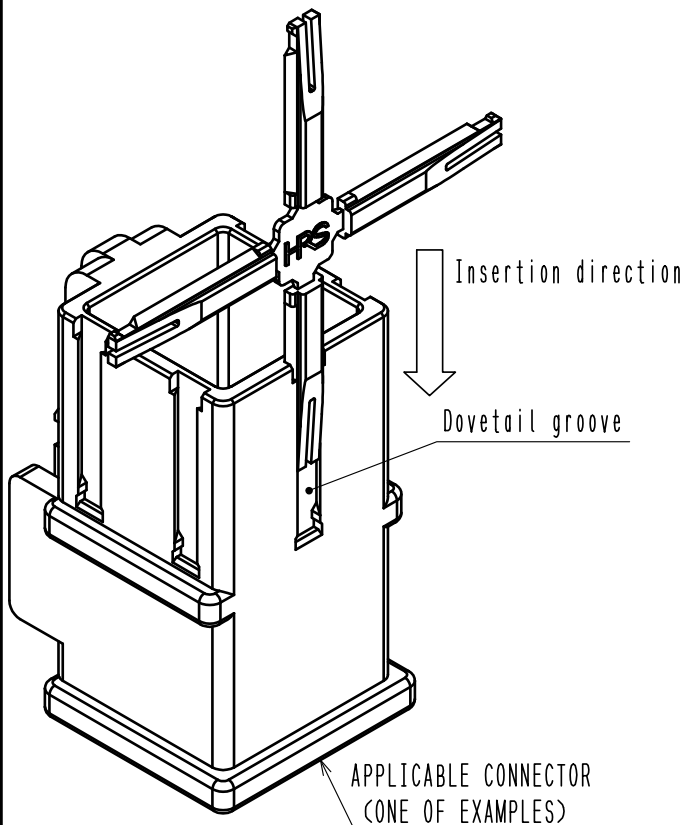


How to use guide keys (HRS No. :CL138-0026-5 Part No. : EM-GK)

Customized keying prevents mis-mating of multiple connectors.
10 keying combinations are available with 2 keys on plug and 3 keys on receptacle.

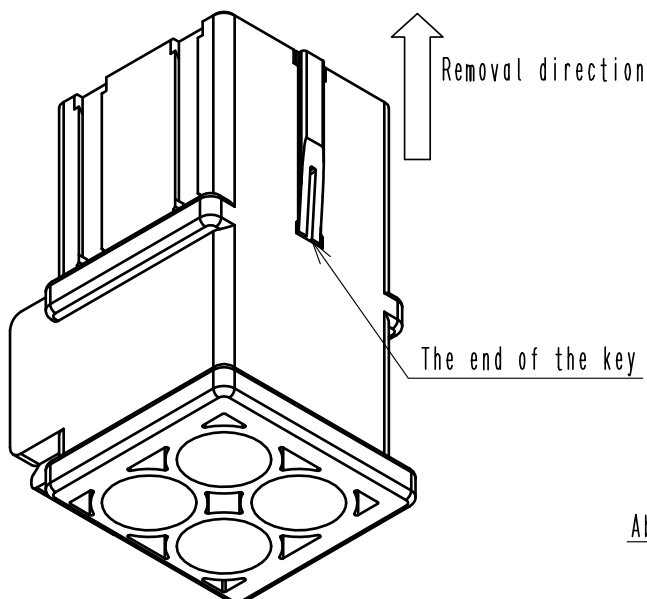
Assembly

- ①Insert the key to the Dovetail groove of applicable connector.
Full insertion will be confirmed with audible click.
Check full insertion with a slight pull on the key.
- ②Fold the grip area down(indicated HRS mark) at the notch, and remove it.
- ③After removing, check again full insertion with a slight push on the key.



Removal

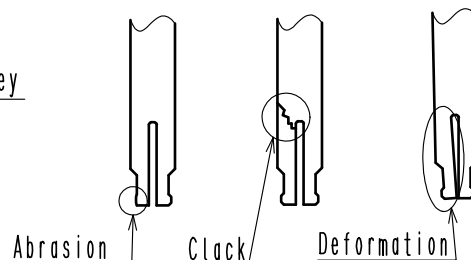
- ①Push the end of the key with a flathead screw driver, and remove it.
When re-use it after removal, check that there is no damage on the key as shown.
The number of times of re-use may be 10 times max.



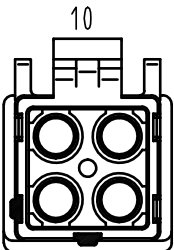
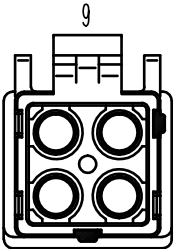
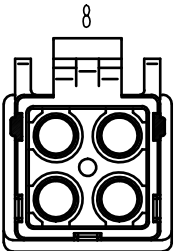
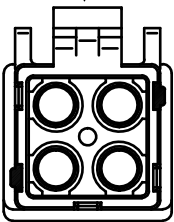
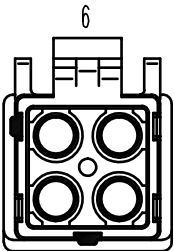
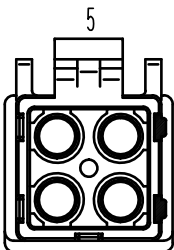
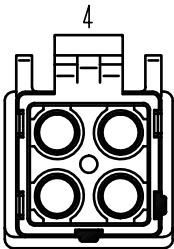
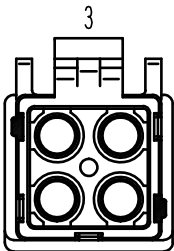
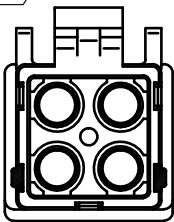
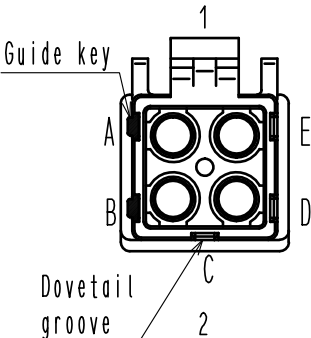
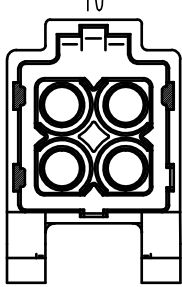
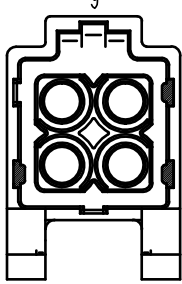
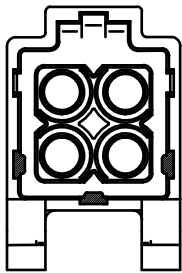
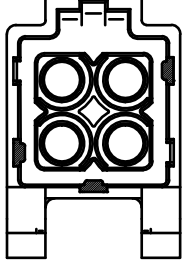
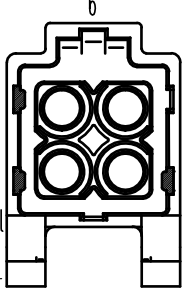
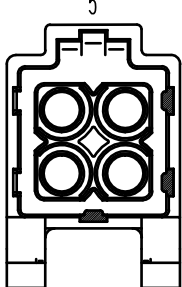
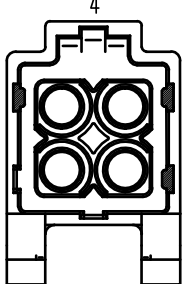
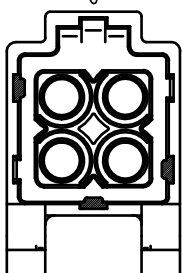
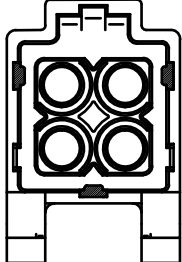
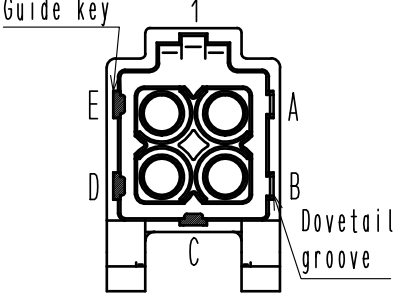
Applicable connectors for guide key(EM-GK)

	HRS No.	Part No.
Plug	CL138-0020-9	EM35MP-4SC
	CL138-0021-1	EM35MP-4PC
Receptacle	CL138-0022-4	EM35MR-4PC
	CL138-0023-7	EM35MR-4SC

Damage examples



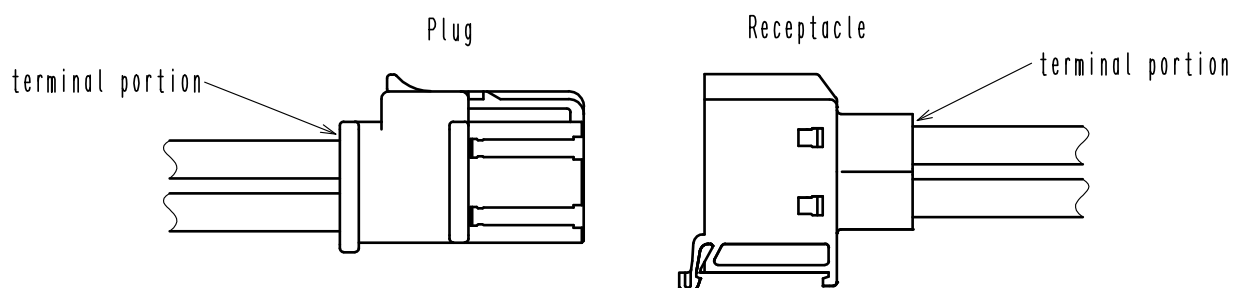
Guide key combination table

Positioning of guide keys on the plug	Positioning of guide keys on the receptacle
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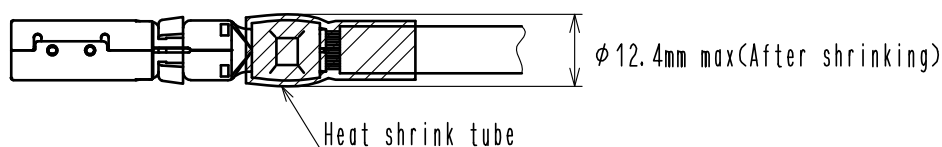
There are 5 dovetail grooves(A to E) in plug and receptacle.
Using two guide keys on the plug and three on the receptacle can make up to ten different combinations.

Precautions when using the connectors

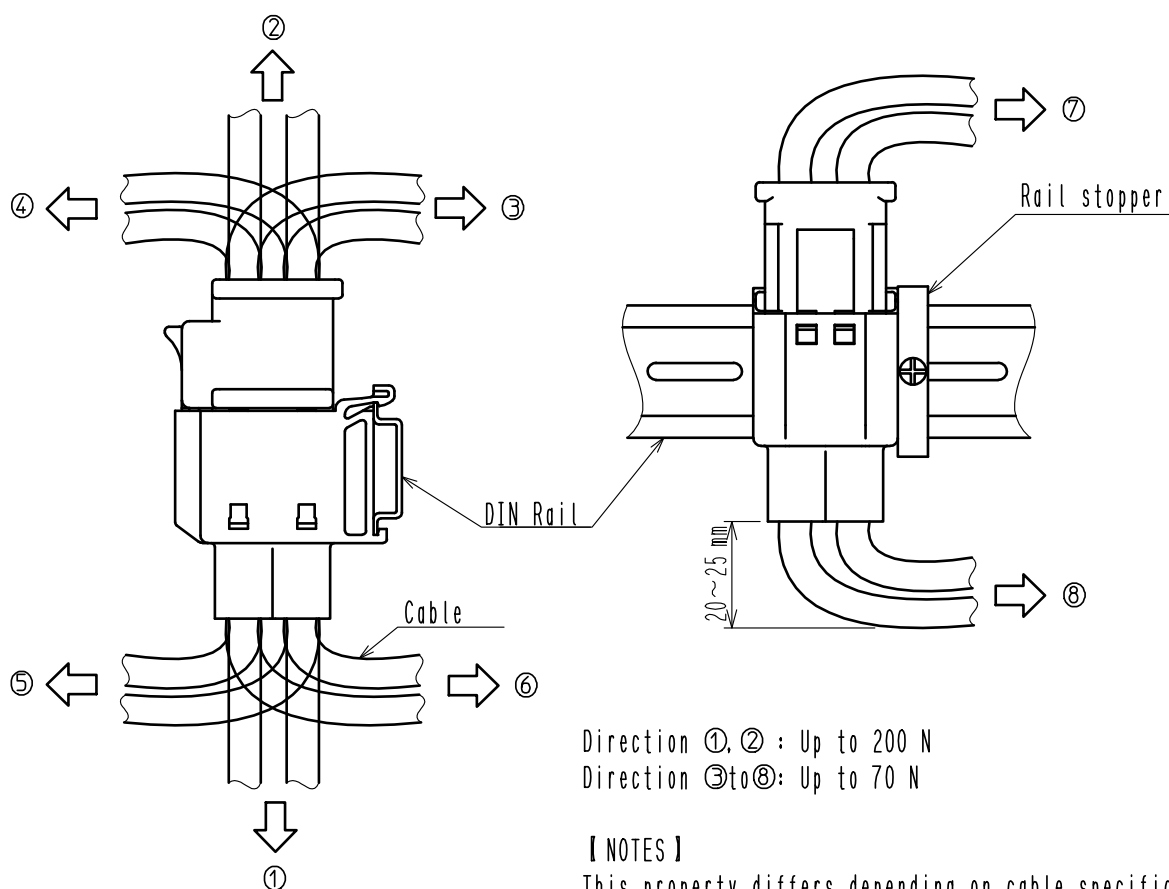
1. Switch off the power before mating or un-mating the connectors.
2. Do not touch the terminal portion when the connector is energized.
Doing so is potentially dangerous and can lead to injury.
Covering the terminal and cable with heat shrink tube is recommended.
3. Stabilize the cable to any fixture, and keep the mechanical stress applied to the connector by cabling below the specified forces as shown to avoid connector breakage.



Heat shrink tube example



Allowable Mechanical Stress to the Connector



Direction ①, ② : Up to 200 N
Direction ③ to ⑧: Up to 70 N

【 NOTES 】

This property differs depending on cable specifications.
Please confirm under the actual conditions prior to use.