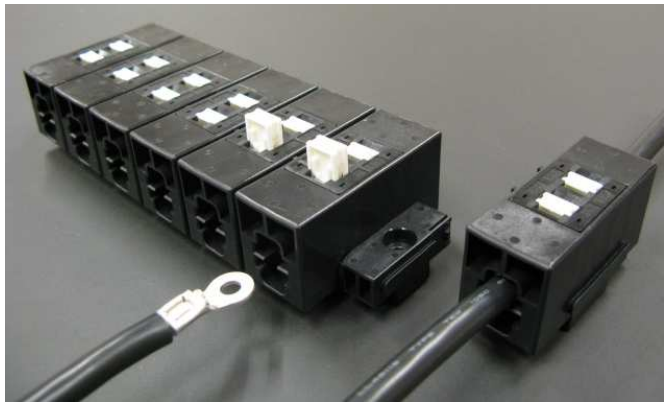
NEW PRODUCT

Large Current Applicable Connector

TBX *connector*

Solderless terminal one-touch connecting type



With screwing type panel lock

■ Specification (Use example)

- Wire: Heat-resistant cross-linked polyethylene
  Rated voltage 600V / 105℃ 8sq
- Solderless terminal: R8-5
- Rated current: 40A
- Registered standards: UL and CSA E239668

■ Target market

Elimination of screwing from terminal block

● One-touch operation

Solderless terminals inserted into the block are fixed by means of pushing the retainer in.

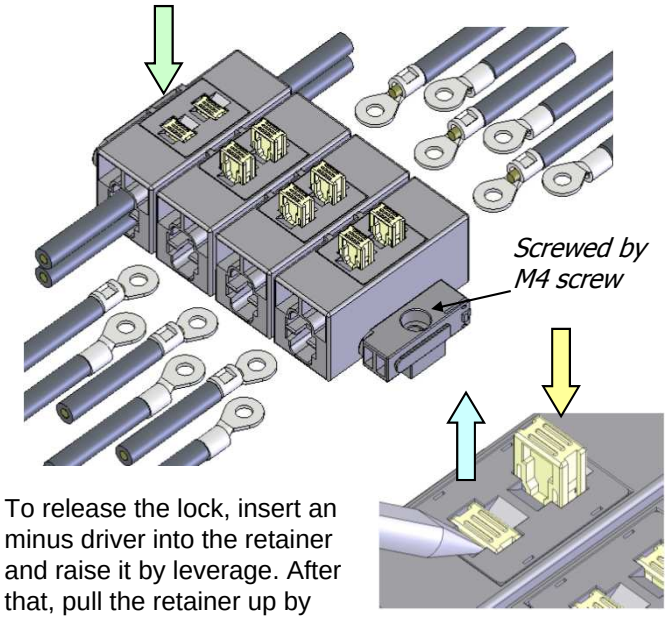
● Screwing/Re-screwing is not required

Loosening of screw over time does not happen. So periodical re-screwing is not necessary.

● Branching

Depending on use purpose, branching up to three is possible.

Lock by pushing the retainer in.

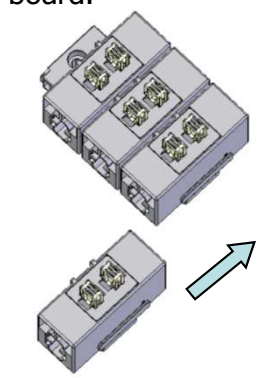


To release the lock, insert an minus driver into the retainer and raise it by leverage. After that, pull the retainer up by fingers to make it fully open *1.

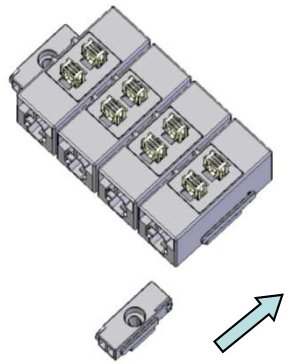
*1: Solderless terminals can be connected only when the retainer is fully open.

● Variation of circuit numbers / Panel lock

Multiple blocks can be connected. Panel lock with a screw hole can be used to attach the block to a board.

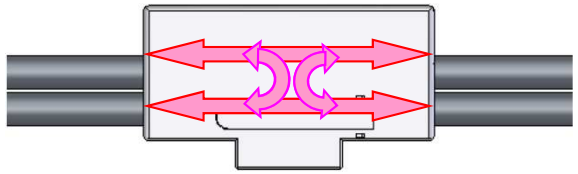


Combine single housings to make necessary number of circuits



Able to attach panel lock as needed

■Current-carrying path



The both ends have two slots (four per a block) to insert terminals. Inserted terminals make short-circuit inside the block.

(Example of terminal insertion)

In ⇔ Out : Insert terminals to the upper (or lower) slots of the both sides.

In⇔ Out : Insert terminals to the both upper and lower slots of In the one side and the upper slot of the other side.

In / Out : Insert terminals to the upper and lower slots of the one side.

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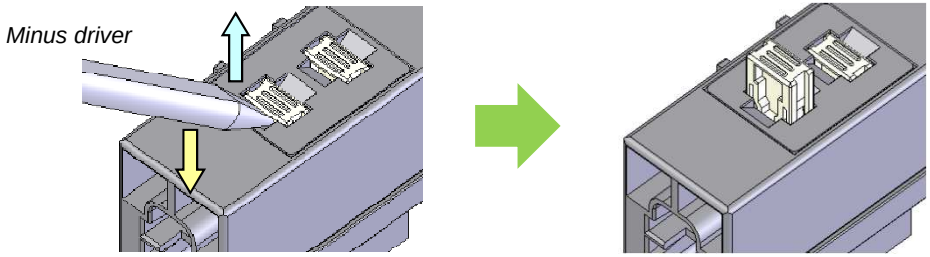
TBX connector

How to connect/disconnect crimped terminals

(1) How to connect

① Release the retainer

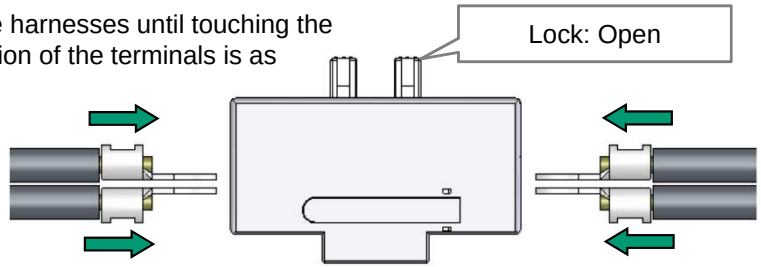
To release the retainer lock, insert an minus driver into the retainer and raise it by leverage. After that, pull the retainer up by fingers to open the lock.



[Lock: Closed] [Lock: Open]

② Insert terminals

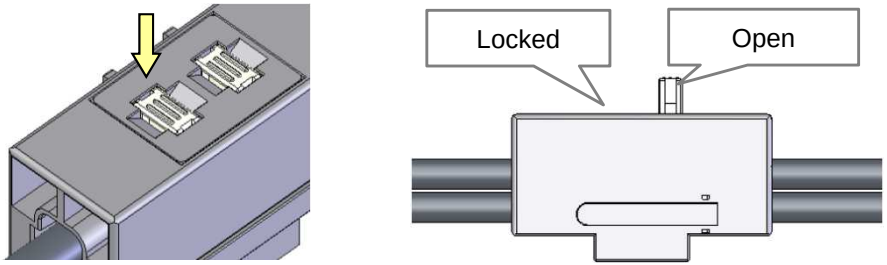
Insert crimped wire harnesses until touching the back wall. Orientation of the terminals is as indicated below.



* Note: Terminals cannot be inserted when the retainer is not open.

③ Lock the retainer

Lock the retainer by pushing it down until becoming parallel to the housing.

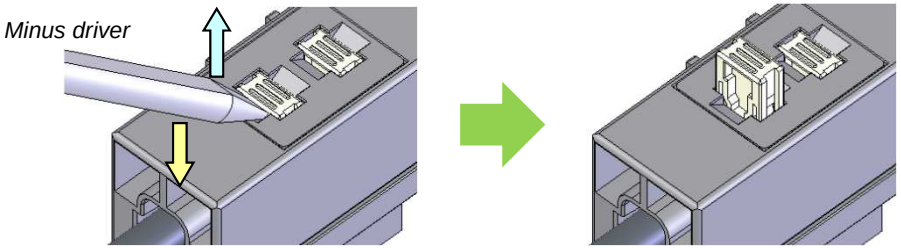


*Note: If a crimped harness is not properly inserted, the retainer cannot be fully pushed down. In that case, the harness needs to be re-inserted.

(2) How to disconnect

① Release the retainer

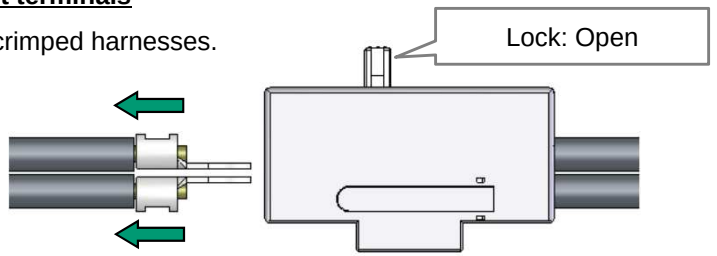
To release the retainer lock, insert an minus driver into the retainer and raise it by leverage. After that, pull the retainer up by fingers to open the lock.



[Lock: Closed] [Lock: Open]

② Pull out terminals

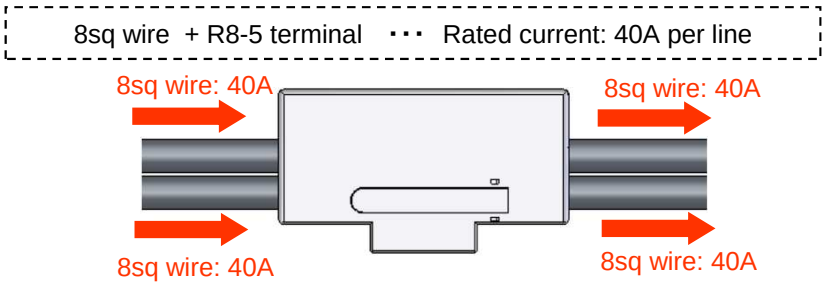
Pull out crimped harnesses.



* Note: Terminals cannot be pulled out when the retainer is not open.

(3) Precautions

The rated current of each line is as follows. Be careful not to apply current higher than the rated current as a result of branching.

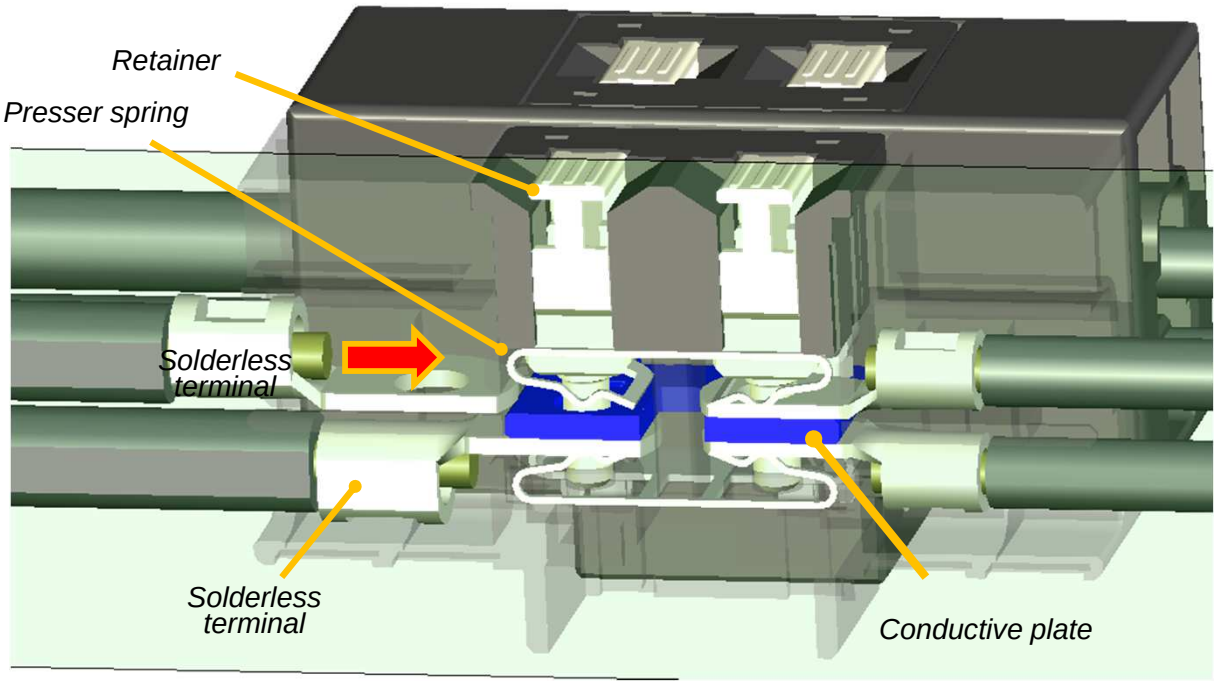


Applicable electric current per line = 40A

TBX connector

Internal structure

社内資料



Internal structure

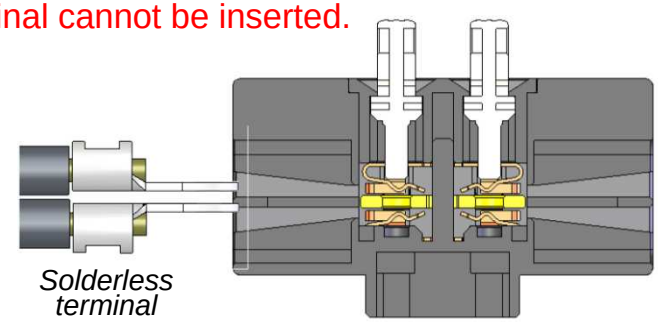
[Key point]

A solderless terminal and a conductive plate are connected by “presser spring”.

Although the presser spring makes scratches on a solderless terminal by inserting/pulling out, it does not establish electrical contact. Electrical conduction is assured by contacting the entire backside of solderless terminal to the conductive plate.

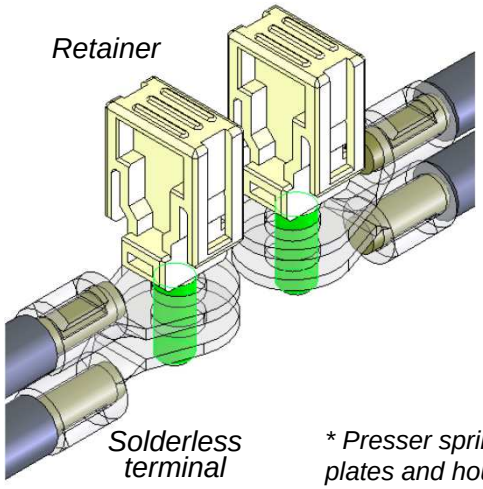
[Key point]

For easier insertion of solderless terminal, the entrance of the insertion slot is wide. But the inside of the slot is getting narrower so that a deformed terminal cannot be inserted.



[Key point]

To eliminate the use of screws, solderless terminals are fixed by “retainers”.



** Presser springs, conductive plates and housing are not shown in the above drawing.*