**NEW PRODUCT**

**Large Current Applicable Connector**

**Solderless terminal one-touch connecting type**

**TBX connector**

- **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.

- **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.

- **Specification (Use example)**
  - **Wire**: Heat-resistant cross-linked polyethylene Rated voltage 600V / 105°C 8sq
  - **Solderless terminal**: R8-5
  - **Rated current**: 40A
  - **Registered standards**: UL and CSA E239668

- **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 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.

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

Minus driver

[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.

Minus driver

[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.

8sq wire + R8-5 terminal • • • Rated current: 40A per line

Applicable electric current per line = 40A
[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”.

[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.