Handling Precautions

Remote I/O RT series

End unit

RT-X□E□N00N

Thank you for purchasing CKD product.
Please review the precautions in this Handling Precautions thoroughly for safe operation of this product.
Incorrect usage may result in malfunction and dangers.
Keep this Precautions in a safe and convenient place for future reference.
For further information, refer to the instruction manual and product catalog.

Refer to the Handling Precautions of Power supply unit for wiring power supply.

⚠ CAUTION

- An electric shock may occur by touching the electrical wiring connection (bare live part). Make sure to power off before wiring. Also, do not touch the live parts with bare hands.
- Fully understand the contents of other units connected to this product before use.
- For details on the entire remote IO system including this product, refer to the "Remote I/O RT Series Instruction Manual: System Construction".
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Accessories	RT-XEELN00N RT-XFELN00N	This Handling Precautions, hexagon socket head bolts (M4, 2 pieces)
	RT-XEERN00N RT-XFERN00N	This Handling Precautions

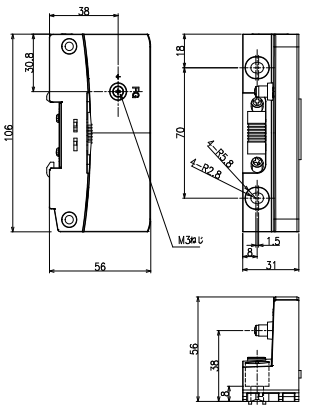
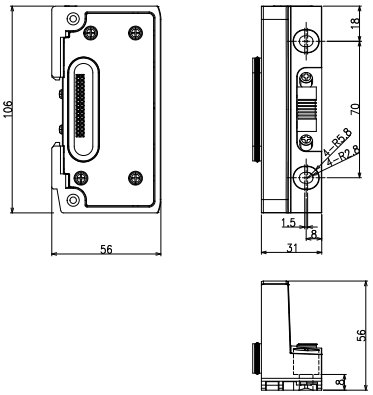
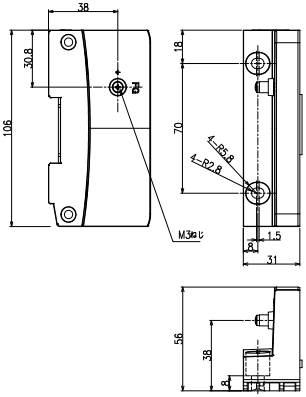
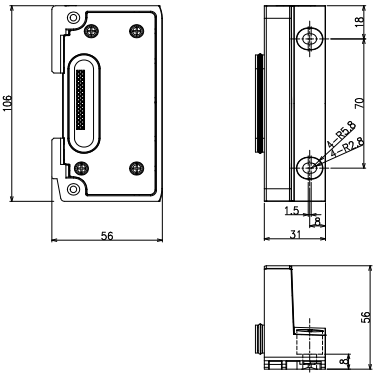
1 Specifications

Always use the product within its specifications.

Item		Specifications			
Model No.		RT-XEELN00N	RT-XEERN00N	RT-XFELN00N	RT-XFERN00N
Size (W x H x D)	mm	31×106×56			
Net weight	g	Approx. 130	Approx. 150	Approx. 140	Approx. 165
Degree of protection		IP65 / IP67 (when connected) Note 1			
Working temperature range	℃	-10 to +55			
Relative Humidity	%RH	30 to 85			
Ambient atmosphere		No corrosive gases or heavy dust			
Installation location		Indoor use			
Altitude	m	Up to 2000			
Pollution Degree		3			
Termination resistor for internal bus		Yes			
FG terminal (use M3 screw) Note 2		Yes	None	Yes	None
Mounting method		Direct (using M5 screws with a length of 20 mm or more)		DIN rail	

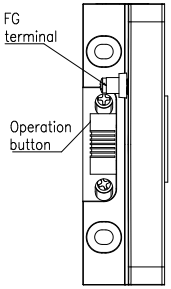
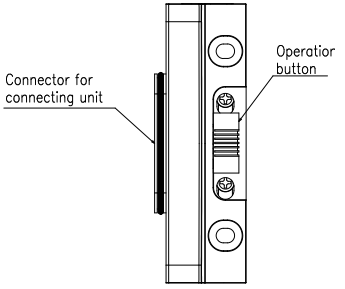
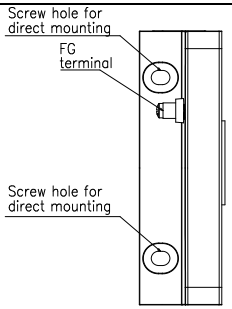
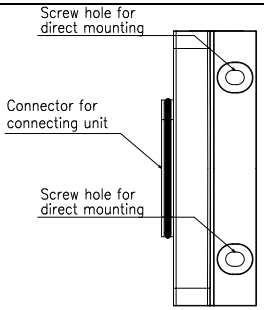
Note 1: IP65/IP67 is not part of the UL certification.
Note 2: FG terminal is a terminal to increase noise resistance. The mark indication is as shown on the right. (⏚)

2 External dimensions

Mounting method	Left End	Right End
DIN rail mounting	 RT-XFELN00N	 RT-XFERN00N
Direct screw mounting	 RT-XEELN00N	 RT-XEERN00N

Dimensional unit: mm

3 Names and functions of each part

Mounting method	Left End	Right End
DIN rail mounting	 RT-XFELN00N	 RT-XFERN00N
Direct screw mounting	 RT-XEELN00N	 RT-XEERN00N

⚠ WARNING

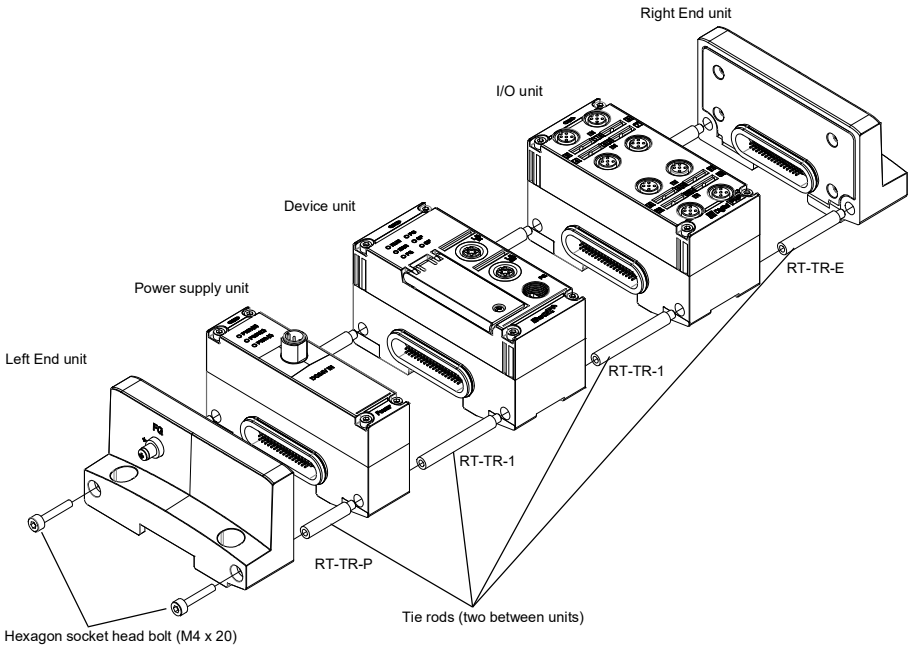
- Do not touch the connectors or gaskets when handling units. It may cause malfunction of failure.

⚠ CAUTION

- Use tie rods to connect units together. Failure to use an appropriate number of tie rods with an appropriate model No., having loose hexagon socket head bolts (M4 x 20) at the left end, or not using any tie rods at all may result in the following trouble:
  - Poor electrical connections between units
  - Failure to achieve the right degree of protection
  - Products falling or otherwise getting damaged (when an external force is applied)
- Tighten the hexagon socket bolts and tie rods together according to the specified tightening torque when connecting units together. Note that if the tightening torque is different from the specified value, the product will not comply with IP65/IP67.
- Be careful not to get your fingers caught when connecting units together.
- The maximum number of connected units is 18, including the device unit and I/O unit. The total length must be 922.5 mm or less.

4.1 Connections between units

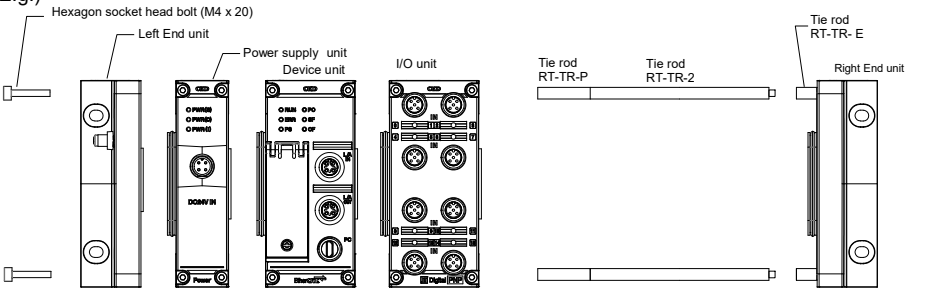
Pass tie rods between the units, then tighten the left End unit with M4 x 20 hexagon socket head bolts.E.g.)



1 Connect the following tie rods in advance. Choose the tie rods as few as possible.

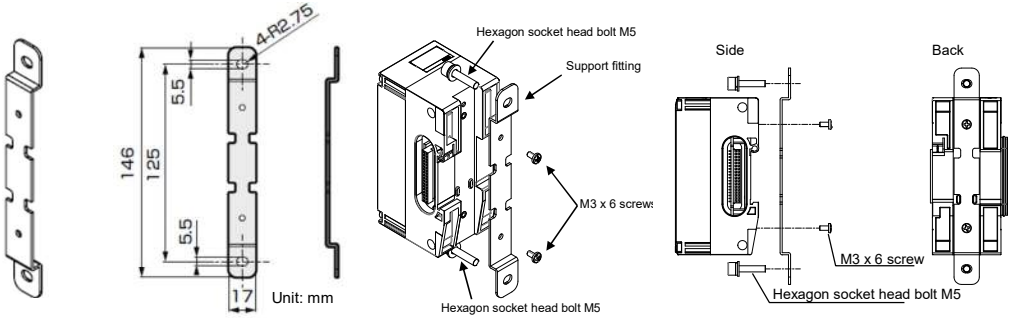
Tie rod model No.	Applicable unit	Specifications
RT-TR-P	For one power supply unit	M4 x 27 mm, 2 pcs
RT-TR-1	For one device unit and one I/O unit	M4 x 46 mm, 2 pcs
RT-TR-2	For two device units and one I/O units	M4 x 92 mm, 2 pcs
RT-TR-4	For four device units and one I/O units	M4 x 184 mm, 2 pcs
RT-TR-8	For eight device units and one I/O units	M4 x 368 mm, 2 pcs
RT-TR-E	For right End unit	M4 x 35 mm, 2 pcs

E.g.)



2 Pass the tie rods through each unit, and then push adjacent units together.
3 Tighten the left End unit with hexagon socket head bolts (M4 x 20) (tightening torque 1.2 N·m ± 0.05 N·m). Hexagon socket head bolts (M4 x 20) are a standard accessory with the left End unit.
4 Check that all units are connected without any gaps.

When connecting four or more units with direct screw mounting, use an auxiliary bracket (RT-SPE) for every four units.



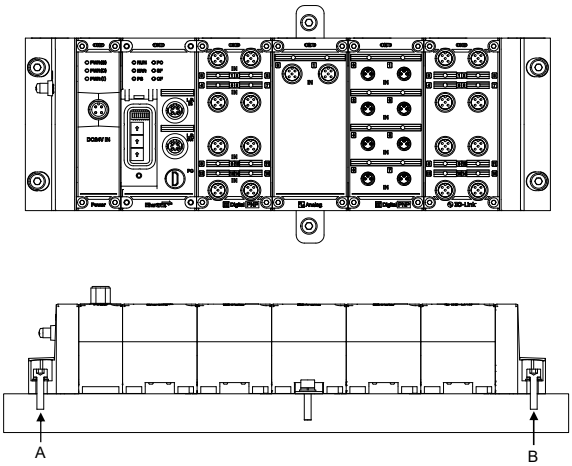
Mounting screws	Max. depth to screw in	Tightening torque
M3	6 mm	0.5 ± 0.05 N·m
M5	20 mm or more	1.2 ± 0.05 N·m

⚠ CAUTION

- Install the remote I/O on a flat surface. If the entire remote I/O system gets twisted or distorted, it may cause air leakage or poor contact.
- Do not install it in places that are used as scaffolding. Climbing or stepping on it may cause damage.
- Follow the specified tightening torque when mounting directly with screws. If the tightening torque is different from the specified value, the product will not comply with IP65/IP67.
- Carry and install the units by multiple people if it will be heavy by connecting a large number of units. The connections may get damaged if stress is applied to it.

5.1 Method for direct screw mounting

Attach screws to the Left End unit and Right End unit.
Tighten the mounting screws in the four places below. The size is M5.
- Two mounting holes for the Left End unit (A in the figure below)
- Two mounting holes for the Right End unit (B in the figure below).

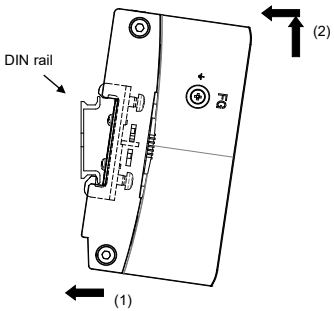


Use screws with the length listed in the table below, and tighten them to the correct torque.

At A (Left End unit)			At B (Right End unit)		
Mounting screws	Maximum depth to screw in	Tightening torque	Mounting screws	Maximum depth to screw in	Tightening torque
M5	20 mm or more	1.2N・m	M5	20 mm or more	1.2N・m

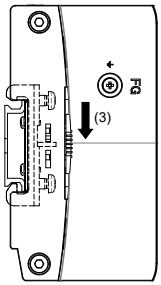
5.2 Method for DIN rail mounting

1 Attach the tabs to the DIN rail in the order (1) then (2) in the figure below.



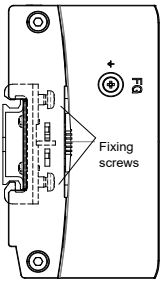
When the screws are loose, move up the operation button and put it on the DIN rail from underneath.

2 Push the upper tab in the direction of (3) in the figure below.



Move down the operation button, and cover the upper retainer on the DIN rail.

3 Tighten the DIN rail fixing screws while holding the unit down to prevent gaps (tightening torque: 1.4 N·m ± 0.2 N·m).



Tighten the fixing screws while pushing the button down to the bottom.

6 Maintenance

Refer to the "Remote I/O RT Series Instruction Manual: System Construction" for installing and removing this product.

⚠ CAUTION

- Do not work with the cable attached as it may cause disconnection and damage.
- Touching the electrical wiring (bare live part) or the connection between units may cause an electric shock or malfunction.
- Do not install the unit with dirt or dust on the unit opening, gasket, O-ring, etc.

PRECAUTIONS

- Do not disassemble, modify, or repair the product as that may cause failure or malfunction.
- Do not drop or apply excessive vibrations or shocks to the product as the part inside are made precisely.
- Do not attach or detach the connector while the power is ON as that may cause a failure or malfunction.
- Mold and rust may develop on the product if it is exposed to high humidity during transportation. Include moisture absorbers and tightly seal the package.

For inquiries regarding this product, please contact the following or the nearest sales office.

CKD Corporation

Head Office and Plant
250, Ouji 2-chome, Komaki, Aichi, 485-8551, Japan
Phone: +81-(0)568-77-1111 /Fax: +81-(0)568-77-1123
Contact
250, Ouji 2-chome, Komaki, Aichi, 485-8551, Japan
Phone: +81-(0)568-74-1338 /Fax: +81-(0)568-74-1165
Please check global distributers with our catalog or the website below.
https://www.ckd.co.jp/en/