



To Use This Product Safely

Be sure to read this before use.
For general precautions regarding electric actuators, please see P. 15 of the opening section.

Individual Precautions: Electric Shuttle Mover ESM Series

During Design and Selection

Danger

- Do not use in locations where hazardous materials such as ignitable, flammable, or explosive substances are present. There is a possibility of ignition, fire, or explosion.
- Ensure that the product is free of water droplets and oil droplets. This can cause fire or failure.
- When mounting the product, be sure to securely hold and fix it (including the workpiece). There is a risk of injury due to the product tipping over, falling, or malfunctioning.
- Warning

- Always keep the travel speed of the carrier unit within the specified speed.
- It is not possible to fix the carrier unit and use the rail portion as a mobile unit.
- Do not damage the rail with a workpiece, etc., that has been dropped by mistake during mounting or removal of a workpiece, etc. This can cause malfunction.
- Snagging a foreign object between the carrier unit and the rail will cause a malfunction.
- Provide a safety cover to prevent the operating area and position locking.
- Use this product in a working environment where people work normally in a general factory. (Operating temperature 5 to 40°C, operating humidity 35 to 80% RH, no condensation)
- This product cannot be used in water, oil, or powder, or in places where the product will be exposed to cutting fluid or cutting chips. Otherwise operation faults may occur.
- This product cannot be used in corrosive environments.

- Use within the product's specified operating range.
- Design a safety circuit or equipment so that damage to equipment, injury to persons, etc., does not occur when the machine stops in the event of a system failure such as emergency stop or power outage.
- Install indoors with low humidity. In places exposed to rain or high humidity (over 85% RH, with condensation), there is a risk of electric leakage and fire. Oil drops and oil mist are also strictly prohibited.
 - Use in such environments can cause damage and malfunction.
- Install in a location free from direct sunlight, dust, and corrosive gas/explosive gas/inflammable gas/combustibles, and away from heat sources. In addition, this product has not been considered for chemical resistance. This can cause failure, explosion, or fire.
- Use and store in a location free from strong electromagnetic waves, ultraviolet rays, and radiation. This can cause malfunction or failure.
- Consider the possibility of power source failure.
 - In case of breakdown in the power source, take countermeasures without causing trouble or damage to the operator or equipment.
- Consider the operating state when restarting after an emergency stop or abnormal stop.
 - Design so that restarting does not cause harm to people or damage to the equipment. Also, if it is necessary to reset the electric actuator to the starting position, design a safe control device. Consider the possibility of failure of the installed motor. Take measures to prevent injury to personnel or damage to equipment in the event of a power source failure.
- Avoid using this product where vibration and impact are present.
- Do not apply a load to the product that is greater than or equal to the allowable load listed in the materials for selection.
- Cannot be used on its side or upside down.

Caution

- A belt runs inside the rail. Be careful not to let chips, etc., enter during assembly.
- Carrier unitDo not use in a range where the cylinder could collide with the stroke end and break.
- Clearly state the maintenance conditions in the equipment's instruction manual.
 - The functionality of this product may be significantly reduced and safety may not be ensured depending on the usage conditions, environment, and maintenance. If maintenance is performed correctly, the product's functions can be fully utilized.

- Regarding installing, setting up, adjusting and maintaining the product, read through the instruction manual and operate correctly.
- The product is manufactured in conformity with the related standards. Never modify.
- Refer to the instruction manual of the motor mounted to the product and control for your safety before wiring and designing.
- The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.

For precautions regarding mounting, installation, adjustment, operation, and maintenance, please refer to the CKD Equipment Product Site(<https://www.ckd.co.jp/kiki/en/>) → 'model No.' → [Instruction Manual](#).