



# To Use This Product Safely

Be sure to read this before use. For general cylinder information, see Intro 41, and for cylinder switches, see P. 1512.

#### Specific Precautions: Rodless Cylinder MRG2 Series

### Design / Selection

#### Warning

- With the cylinder, there is the risk of the table popping out in cases when a change of force occurs due to disruption of the sliding portions of the machine.

In such cases, bodily injury such as trapped hands or feet may occur, and machine damage may result. Therefore, adjust the machine to ensure smooth movement and design it to prevent injury to the human body.

- When a deceleration circuit or shock absorber is necessary. If the speed of the driven object is fast or the Weight is large, the standard equipped shock absorber alone may find it difficult to absorb the impact. Therefore, install a circuit that decelerates before entering the shock absorber, or use an external shock absorber to mitigate the impact. In this case, sufficiently consider the rigidity of the machinery.

- The piston may become derailed if the unit is used in an environment of pressure greater than the Max Operating Pressure or in cases when a load greater than the allowable value is applied.

### During Use

#### CAUTION

- Be careful of the gap between the end plate and the slider. During cylinder operation, fingers or hands may be caught, causing injury, so be very careful.

- Do not apply a load to the cylinder that is greater than or equal to the allowable load listed in the materials for selection.

- Do not use with the table fixed. Use the cylinder with the end plate fixed. Avoid using with the table fixed.

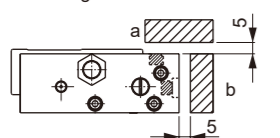
- Mount so that the table functions with the Min Operating Pressure value of all processes.

If the flatness of the cylinder mounting surface is poor, the minimum Operating Pressure will rise due to twisting of the guide section, causing early wear of the bearing section. Therefore, install so that the table operates at or below the minimum Operating Pressure for the entire stroke. A mounting mating surface with high flatness is desired, but if it cannot be sufficiently confirmed, perform shim adjustment, etc.

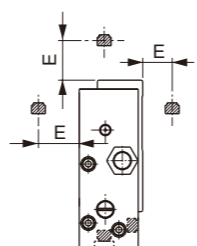
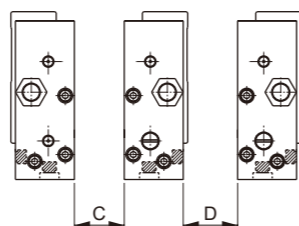
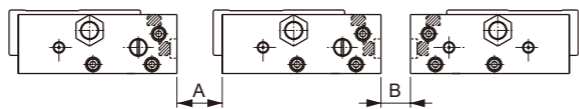
- Be careful to avoid scratching or denting the outer peripheral surface of the cylinder tube. This may lead to damage of the lube keeper and slider wear ring, causing malfunction.

- The cylinder switch may malfunction if there is a magnetic substance such as a metal plate installed adjacently. Be sure that more clearance than the dimensions listed below is provided.

Magnetic substance such as steel plate



- When using cylinders adjacent with each other or when using other magnetic sensors nearby, in order to prevent malfunctioning due to the leaked magnetic field of the cylinder embedded magnet, separate the cylinder or magnetic sensors by at least the values listed below.

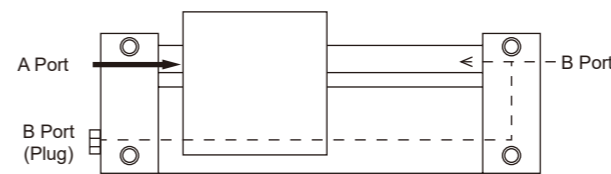


Unit: mm

Bore Size	A	B	C	D	E
ø10	20	10	10	10	20
ø16	20	10	10	10	20
ø25	50	20	20	20	50

If the distance is less than dimension E, malfunction can be prevented by inserting a magnetic substance (steel plate thickness 2 mm or more) between the tables.

#### About Piping Port Position and Operation Direction



When A port is pressurized, the slide table moves to the right in the figure. When B port is pressurized, the slide table moves to the left in the figure. B port (plug) is sealed with a plug at the time of shipment. Centralized piping becomes possible by removing the plug and sealing the B port on the right side.

- Treat our shock absorbers as consumable parts. Replace if a decrease in energy absorption capacity is observed or if operation is no longer smooth.
- The magnetic strength of the embedded magnet is powerful. Do not disassemble.

For precautions during installation, adjustment, use, and maintenance, please refer to "During Use" in this catalog and the Instruction Manual on the CKD Component Product Site (<https://www.ckd.co.jp/kiki/en/>) -> "Model Number".