Safety Precautions

Be sure to read this section before use.

Refer to Intro Page 73 for general information of the cylinder, and to Intro Page 80 for general information of the cylinder switch.

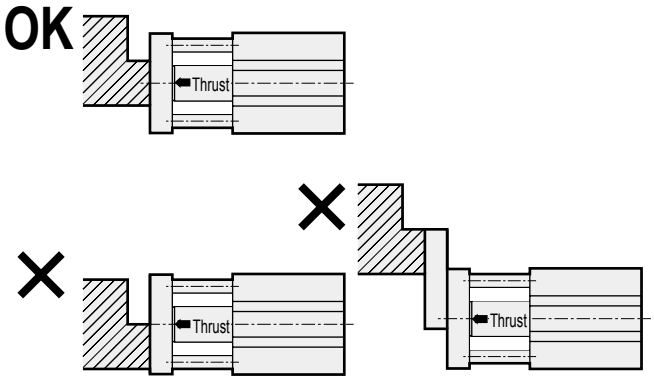
Design/selection

⚠CAUTION

■ Use within the allowable load.
Exceeding the allowable lateral load or allowable torque may cause damage, etc. Refer to the reference materials for selection on page 1061.

■ Do not use as a stopper.
Use this product in applications that are not subject to lateral loads with impact, such as pushers and lifters.

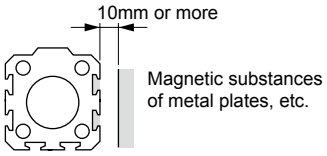
■ When the unit is going to be used by pressing down on the cylinder part-way in the stroke, be sure to apply thrust on the end plate towards the piston rod axis direction. When the unit is going to be used by pressing down on the cylinder with a clamp, etc., part-way in the stroke, thrust will work on the end plate so that eccentric pressure may lead to damage of parts. Use at the piston rod shaft core as in the figure below.



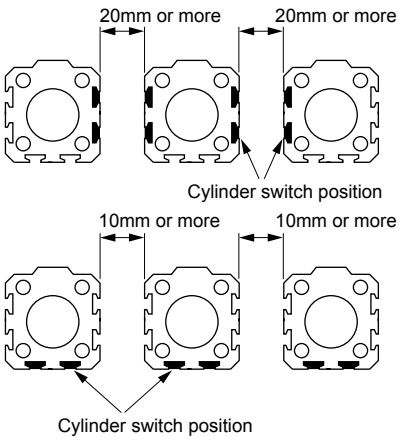
Mounting, installation and adjustment

⚠CAUTION

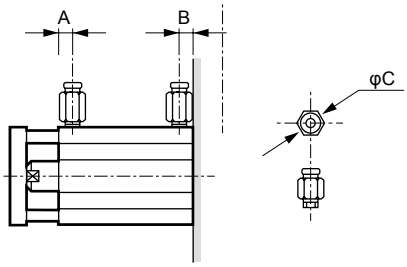
■ The cylinder switch may malfunction if there is a magnetic substance such as a metal plate installed adjacently. Confirm that a distance of at least 10 mm is allocated from the surface of the cylinders.
(Same for all bore sizes)



■ The cylinder switch may malfunction if cylinders are installed adjacently. Check that the following distances are allocated between cylinders. (Same for all bore sizes)



■ Be sure to attach a speed controller during piping before use. As compatible piping fittings are limited, refer to the table below to select the fitting.



Descriptions / Bore size (mm)	Port size	Port position A	Port position B	Applicable fittings	Fitting O.D. φC	Inapplicable fittings
φ12	M5	5.5	5.5	SC3W-M5-4 SC3W-M5-6 GWS4-M5-S GWS4-M5 GWL4-M5 GWL6-M5	φ11 or less	GWS6-M5
φ16						
φ20		8	5.5			
φ25		11	6			
φ32	Rc1/8 *1	8	8	SC3W-6-4, 6, 8 GWS4-6 GWS6-6 GWS8-6 GWL4-6 GWL6-6	φ15 or less	GWS10-6 GWL8-6 GWL10-6
φ40		12	8.5			
φ50	Rc1/4	10.5	10.5	SC3W-8-6, 8, 10 GWS4-8 GWS6-8 GWS10-8 GWL4 to 12-8	φ21 or less	GWS12-8
φ63		13	11			
φ80	Rc3/8	16	13	SC3W-10-6, 8, 10 GWS6-10 GWS8-10 GWS10-10 GWL6 to 12-10	φ21 or less	—
φ100		23	15			

*1 : The φ32 bore size with a 5 mm stroke and without a switch has a port size of M5.
Refer to the dimensions for the port dimensions.

Mounting, installation and adjustment

⚠CAUTION

■ Do not damage surface flatness by denting or scratching the end plate surface.
Make sure that the flatness of the mating surface where the end plate will be attached is 0.05mm or below.

■ Allowable absorbed energy value
Use this cushion within the range of the allowable absorbed energy. When the unit will be used where the allowable absorbed energy will be exceeded, provide a separate external shock absorber.
For details on the allowable absorbed energy value, refer to the field for specifications.

Use/maintenance

⚠CAUTION

■ Do not disassemble the product. Once disassembled, the performance may not be retained.