



Safety Precautions

Always read this section before use.

Refer to page 2 for general information of the cylinder, and to page 320 for general information of the cylinder switch.

Guided cylinder STM Series

Design & selection

CAUTION

- When using a 2-color display proximity switch for STM-B-6, avoid mounting the cylinder on a magnetic substance such as a metal plate. This could lead to switch detection malfunction.

- Observe tightening torque when mounting the switch.

If the tightening torque range is exceeded, the mounting bolt, bracket, switch, etc., could be damaged. In addition, when tightening the set screw with a torque less than the tightening torque range, displacement of switch mounting position could occur.

Tightening torque: 0.03 to 0.08 (N·m)

Mounting, installation & adjustment

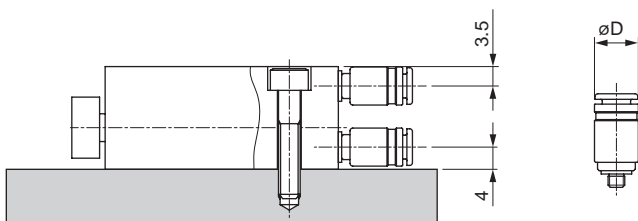
1. Common

CAUTION

- Be sure to attach a speed controller during piping before use. In addition, when mounting the rear piping with through bolt, the applicable fittings are as follows.

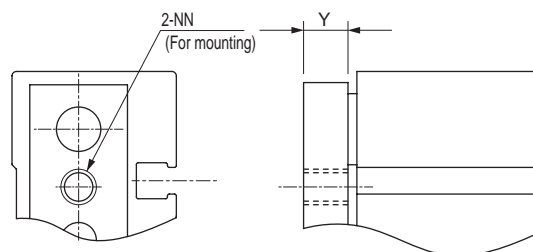
Bore size	Port size	Available fitting/speed controller valve	Fitting O.D. D
ø6 ø10	M3	SC3W-M3-*-P7*	ø8
		SC3U-M3-*-P7*	
		GWS-*-M3-S-P7*	
		FTS4-M3-P80	
		FTL4-M3-P80	
		CG-S2-M3	

*1: Copper-based materials are used. Please refer to page 946 of this catalog.



- Do not damage surface flatness by denting or scratching the tube main body mounting surface or the end plate surface. Make sure that the flatness of the mating surface where the end plate will be attached is 0.02 mm or below.

- When attaching a jig, etc., to the end plate, make sure that the bolt insertion length is equivalent to the Y dimension. Not doing so could cause malfunction or damage of the end plate.



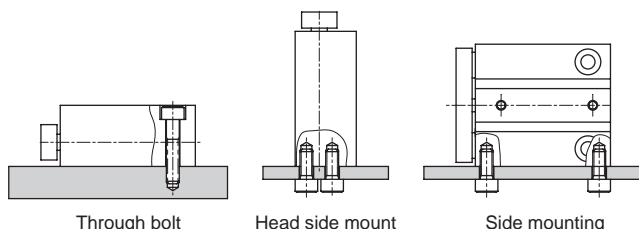
Bore size (mm)	Y dimensions
ø6	5
ø10	

- Rubber cushion is integrated as a cushion mechanism. The table below shows the kinetic energy which can be absorbed by the rubber cushion. If the energy exceeds these values, consider using a separate shock absorber.

Bore size (mm)	Allowable energy absorption (J)
ø6	0.008
ø10	0.054

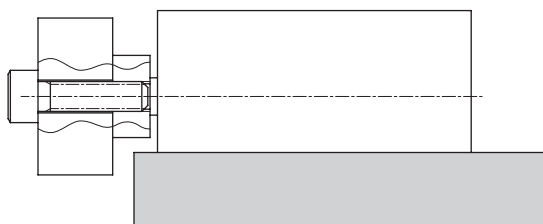
- When mounting the body with bolts, tighten them to the tightening torque as specified in the table below.

Bore size (mm)	Thread size	Tightening torque (N·m)		
		Through bolt	Bottom mount	Head end installation
ø6	M3	1.1		0.6
ø10	M4	2.7		1.6



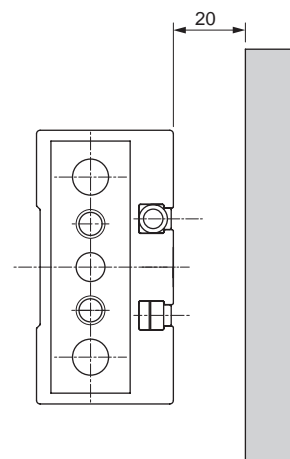
- When mounting the workpiece on the end plate, tighten the bolts to the tightening torque as specified in the table below.

Bore size (mm)	Thread size	Tightening torque (N·m)
ø6	M3	0.6
ø10	M4	1.6

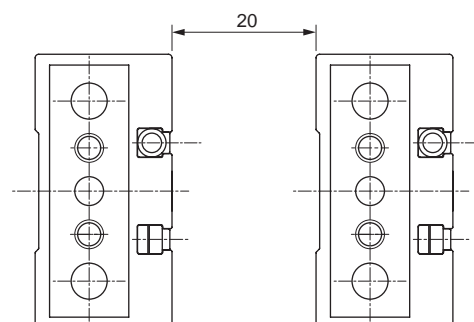


2. With switch

- The cylinder switch may malfunction if there is a magnetic substance such as a metal plate installed adjacently. Check that a distance of 20 mm is provided from the surface of the cylinders. (Same clearance for all bore sizes)



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



During use & maintenance

⚠ CAUTION

- This cylinder cannot be dismantled. Do not forcefully disassemble it.

SCPD3
SCM
SSD2
MDC2
SMG
LCM
LCR
LCG
LCX
STM
STG
STR2
MRL2
GRC
Cylinder Switch
MN3E MN4E
4GA/B
M4GA/B
MN4GA/B
F.R.(module unit)
Clean F.R
Precision R
Press gauge Diff. press gauge
Electro-pneumatic R
Speed controller
Auxiliary valve
Fitting/tube
Clean air unit
Pressure sensor
Flow rate sensor
Valve for air blow
Ending