

## High Durability Series

# Dust Resistant Cylinder

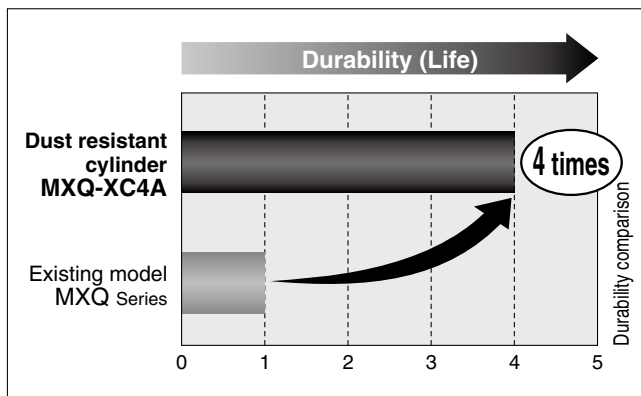
ø6, ø8, ø12, ø16, ø20, ø25

RoHS

- Compatible with environments where powder particles of 20 to 50  $\mu\text{m}$  in diameter, such as ceramic powder, toner powder, paper powder, metal powder (excluding welding spatter), etc., are present

## 4 times more durable than the standard model

Comparison with the standard model

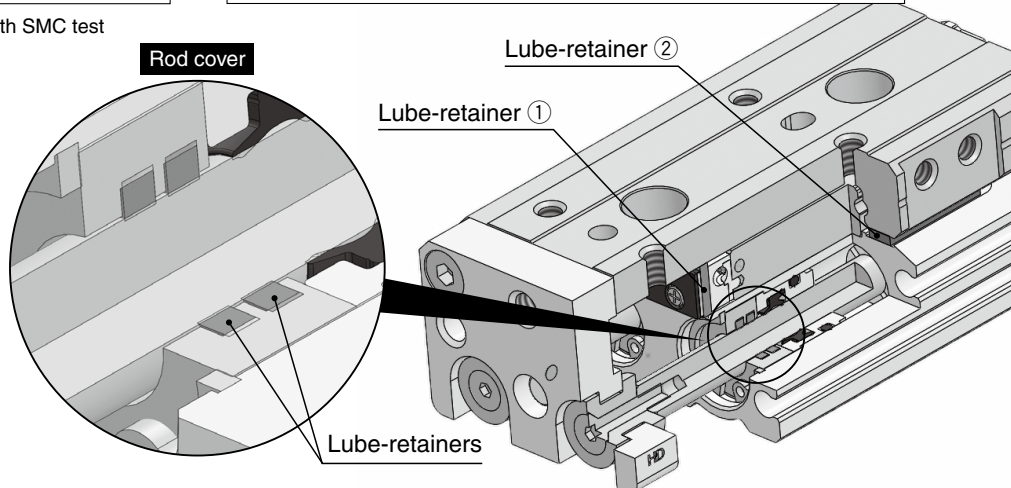
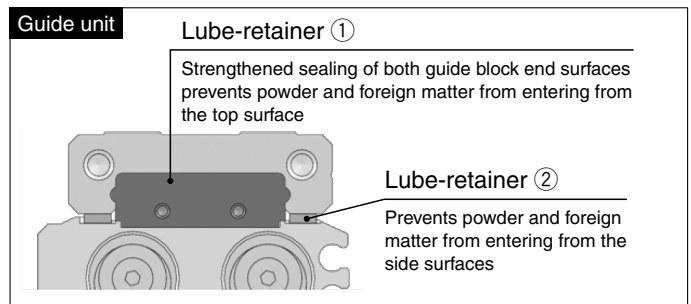


\* The durability test was conducted in accordance with SMC test conditions.

- Dimensions and workpiece mounting dimensions are interchangeable with the standard product.

\* Refer to the precautions on page 2 for measures to prevent dust from entering the product when mounting a workpiece and for the max. screw-in depth of the end plate. For further details, refer to the **Web Catalog**.

- Lube-retainers are installed on the guide unit and rod cover. This prevents the entry of dust and foreign matter.



## Variations

Type	Bore size [mm]	Standard stroke [mm]									Adjuster option				Made to Order	
		10	20	30	40	50	75	100	125	150	Rubber stopper	Metal stopper				
Standard MXQ□-XC4A  Symmetric MXQ□L-XC4A	6	●	●	●	●	●					Extension stroke end	Retraction stroke end	Both ends	Extension stroke end	Retraction stroke end	Both ends
	8	●	●	●	●	●	●				●	●	●	●	●	●
	12	●	●	●	●	●	●	●			●	●	●	●	●	●
	16	●	●	●	●	●	●	●	●		●	●	●	●	●	●
	20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
											Extension stroke end	Retraction stroke end	Both ends	Extension stroke end	Retraction stroke end	Both ends
<div>· Anti-corrosive guide unit (-X42)</div> <div>· Long adjustment bolt (10 mm longer adjustment range) (-X11)</div> <div>· Long adjustment bolt (20 mm longer adjustment range) (-X12)</div>																

# MXQ-XC4A



22-E785

## High Durability Series

# Dust Resistant Cylinder

# MXQ-XC4A

ø6, ø8, ø12, ø16, ø20, ø25

RoHS

## How to Order

MXQ **12** **50** **AS** **M9BW** **XC4A**

• Dust resistant cylinder specifications

### 1 Bore size/3 Stroke [mm]

Bore size	Stroke
6	6 mm 10, 20, 30, 40, 50
8	8 mm 10, 20, 30, 40, 50, 75
12	12 mm 10, 20, 30, 40, 50, 75, 100
16	16 mm 10, 20, 30, 40, 50, 75, 100, 125
20	20 mm 10, 20, 30, 40, 50, 75, 100, 125, 150
25	25 mm 10, 20, 30, 40, 50, 75, 100, 125, 150

### 2 Symmetric type

Nil	Standard type
L	Symmetric type

### 4 Adjuster options

Refer to Table 1

Nil	Without adjuster
AS	Extension end rubber stopper
AT	Retraction end rubber stopper
A	Rubber stopper on both ends
CS	Extension end metal stopper
CT	Retraction end metal stopper
C	Metal stopper on both ends
ASCT	Extension end rubber stopper + Retraction end metal stopper
CSAT	Extension end metal stopper + Retraction end rubber stopper

### 5 Functional option

Refer to Table 1

Nil	Standard type
P	Axial piping type

### 6 Auto switch

Nil	Without auto switch (Built-in magnet)
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\* For applicable auto switch models, refer to the table below.

### 7 Number of auto switches

Nil	2
S	1
n	n

### 8 Made to order Refer to Table 1

Nil	None
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X42	Anti-corrosive guide unit
-X42A	Anti-corrosive guide unit + Long adjustment bolt (10 mm longer adjustment range)
-X42B	Anti-corrosive guide unit + Long adjustment bolt (20 mm longer adjustment range)

\* The "-X12" and "-X42B" are not available for ø6.

Table 1 Adjuster options/Functional option/Made-to-order combinations

5 Functional option	Nil						P					
	Nil	X11	X12	X42	X42A	X42B	Nil	X11	X12	X42	X42A	X42B
8 Made to order	Nil	—	—	—	—	—	Nil	—	—	—	—	—
Adjuster option type	AS	○	○	○	○	○	○	○	○	○	○	○
	AT	○	○	○	○	○	○	○	○	○	○	○
	A	○	○	○	○	○	○	○	○	○	○	○
	CS	○	○	○	○	○	○	○	○	○	○	○
	CT	○	○	○	○	○	○	○	○	○	○	○
	C	○	○	○	○	○	○	○	○	○	○	○
	ASCT	○	○	○	○	○	○	○	○	○	○	○
	CSAT	○	○	○	○	○	○	○	○	○	○	○

\* The "-X12" and "-X42B" are not available for ø6.

## Applicable Auto Switches/Refer to the Web Catalog for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model		Lead wire length [m]				Pre-wired connector	Applicable load			
					DC		AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)		5 (Z)			
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC	
	3-wire (PNP)			12 V		M9PV		M9P	●	●	●	○	○				
	2-wire			12 V		M9BV		M9B	●	●	●	○	○				
	3-wire (NPN)			5 V, 12 V		M9NWV		M9NW	●	●	●	○	○				
	Diagnostic indication (2-color indicator)			3-wire (PNP)	5 V, 12 V	M9PWV		M9PW	●	●	●	○	○	IC circuit			
				2-wire	12 V	M9BWV		M9BW	●	●	●	○	○		—		
				3-wire (NPN)	5 V, 12 V	M9NAV*1		M9NA*1	○	○	●	○	○				IC circuit
				3-wire (PNP)	12 V	M9PAV*1		M9PA*1	○	○	●	○	○				
Water resistant (2-color indicator)	2-wire	12 V	M9BAV*1	M9BA*1	○	○	●	○	○								
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	●	●	●	○	IC circuit	—	
				No	2-wire	24 V	12 V	100 V	A93V	A93	●	●	●	●	○*2		—
								100 V or less	A90V	A90	●	●	●	●	○*2		IC circuit

\*1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.

\*2 The load voltage used is 24 VDC.

\* Lead wire length symbols: 0.5 m ..... Nil (Example) M9NW 3 m ..... L (Example) M9NWL 1 m ..... M (Example) M9NWM 5 m ..... Z (Example) M9NWZ

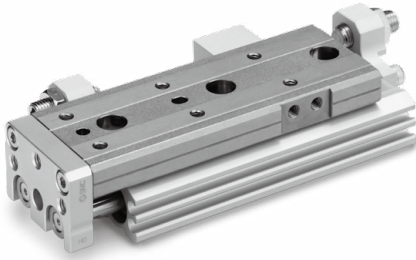
\* Auto switches marked with a "○" are produced upon receipt of order.

\* Since there are applicable auto switches other than those listed above, refer to the Web Catalog for details.

\* For details on auto switches with pre-wired connectors, refer to the Web Catalog.

\* Auto switches are shipped together with the product but do not come assembled.

## Specifications



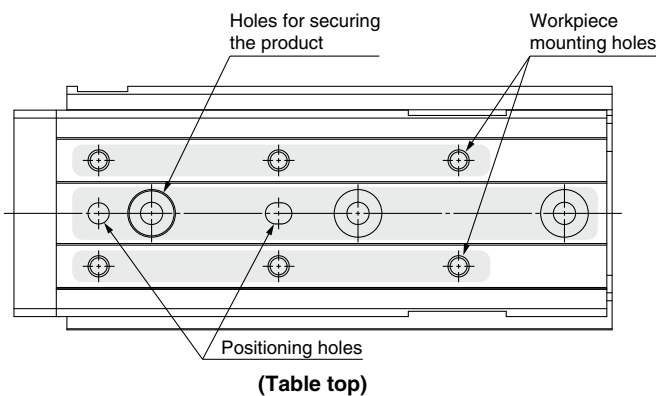
Bore size [mm]	6	8	12	16	20	25
Piping port size	M5 x 0.8				Rc1/8	
Fluid	Air					
Action	Double acting					
Operating pressure	0.3 to 0.7 MPa			0.15 to 0.7 MPa		
Proof pressure	1.05 MPa					
Ambient and fluid temperatures	−10 to 60°C					
Operating speed range (Average operating speed)*1	50 to 200 mm/s					
Applicable powder particle size	20 to 50 μm					
Lubrication	Non-lube					
Stroke length tolerance	+1 0 mm					

\*1 Average operating speed: The speed when the stroke is divided by the time it takes to operate the stroke from start to end

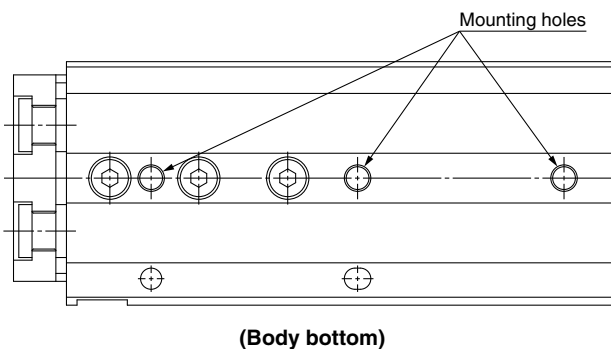
## Operating Precautions

### ⚠ Caution

- When mounting the body or a workpiece, be sure to seal all holes on the table with tape, bolts, etc. If there are any unsealed holes, dust may enter the guide unit, resulting in a reduced service life.

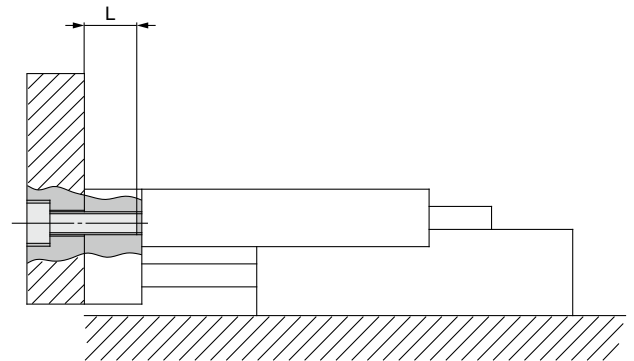


- When mounting the body, be sure to use all mounting holes on the bottom of the body so that they are not exposed. If there are any unused holes, dust may enter the guide unit, resulting in a reduced service life.



- The workpiece mounting position of the end plate is the same as that of the standard product, but note that the max. screw-in depth ("L" dimension) will change.

### Front mounting



Model	Bolt	Max. tightening torque [N·m]	Max. screw-in depth [Lmm]	Ref.) Max. screw-in depth of standard product [Lmm]
<b>MXQ 6(L)</b>	M3 x 0.5	0.9	3.5	4.5
<b>MXQ 8(L)</b>	M4 x 0.7	2.1	4.5	5.5
<b>MXQ12(L)</b>	M5 x 0.8	4.4	6.5	7.5
<b>MXQ16(L)</b>	M6 x 1	7.4	8.5	9.5
<b>MXQ20(L)</b>	M6 x 1	7.4	11.5	12.5
<b>MXQ25(L)</b>	M8 x 1.25	18.0	13.5	14.5

