

Air Slide Table/Double-ported Type **MXQ□A Series**



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 auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC		
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○				
	2-wire			5 V, 12 V	—	M9BV	M9B	●	●	●	○	○	—					
	3-wire (NPN)					M9N WV	M9N W	●	●	●	○	○						
	3-wire (PNP)			12 V	—	M9P WV	M9P W	●	●	●	○	○	—					
	2-wire					M9B WV	M9B W	●	●	●	○	○						
	Diagnostic indication (2-color indicator)			5 V, 12 V	—	3-wire (NPN)	24 V	5 V, 12 V	—	M9NAV *1	M9NA *1	○	○	●	○		○	IC circuit
						3-wire (PNP)				M9PAV *1	M9PA *1	○	○	●	○		○	
				2-wire	12 V	—	M9BAV *1	M9BA *1	○	○	●	○	○	—				
				3-wire (NPN)			5 V, 12 V	—										
Water resistant (2-color indicator)	5 V, 12 V	—	3-wire (NPN)	24 V	5 V	—			A96V	A96	●	—	●	—	IC circuit	—		
			3-wire (PNP)				A93V *2	A93	●	●	●	●	—	—			Relay, PLC	
Read auto switch	—	Grommet	None	2-wire	24 V	12 V	100 V or less	A90V	A90	●	—	●	—		IC circuit	—		

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

A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

*2 1 m lead wire is only applicable to the D-A93.

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

* Solid state auto switches marked with "○" are produced upon receipt of order.

* Since there are applicable auto switches other than those listed above, refer to page 125 for details.

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

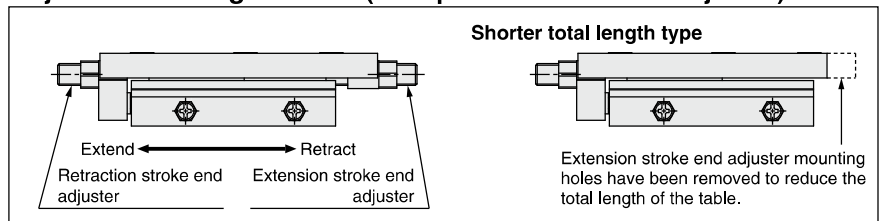
* Auto switches are shipped together, but not assembled.



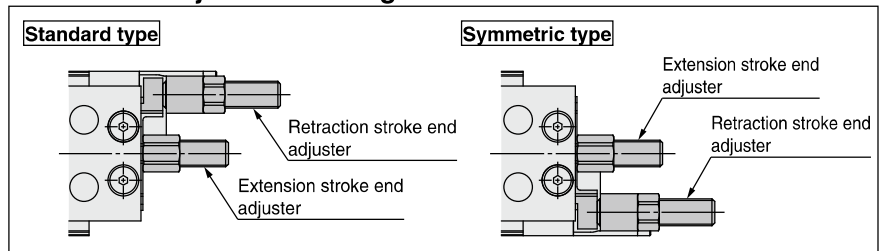
Made to Order
(For details, refer to pages 127 to 156.)

Symbol	Specifications
-X7	PTFE grease
-X9	Grease for food processing equipment
-X11	Long adjustment bolt (10 mm longer adjustment range)
-X12	Long adjustment bolt (20 mm longer adjustment range)
-X28	Long adjustment nut and bolt
-X33	Without built-in auto switch magnet
-X39	Fluororubber seal
-X42	Anti-corrosive guide unit
-X580	Low-speed specification (15 to 50 mm/s)
-X2128	Heat-resistant specification (-10 to 100°C)
-X2192	Dual stroke specification
-X2202	Extension stroke end adjuster fixed from the axial direction

Adjuster Mounting Position (Exception: Centralized Adjuster)



Centralized Adjuster Mounting Position



Moisture Control Tube IDK Series



When operating an actuator with a small diameter and a short stroke at a high frequency, dew condensation (water droplets) may occur inside the piping depending on the conditions. Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to the **Web Catalog**.

⚠ Precautions

Be sure to read "Specific Product Precautions" before handling. Refer to page 195.

Double-ported type
MXQ□A

Low thrust with high rigidity type
MXQ□B

Single side-ported type
MXQ□C

Height interchangeable type
MXQ□

Common Adjuster Options

Auto Switch Mounting

Made to Order

Model Selection

MXQ□A Series

Specifications

Bore size [mm]	6	8	12	16	20	25
Piping port size	M5 x 0.8					
Fluid	Air					
Action	Double acting					
Operating pressure	0.15 to 0.7 MPa*1 (End lock: 0.35 to 0.7 MPa)*1					
Proof pressure	1.05 MPa					
Ambient and fluid temperatures	-10 to 60°C					
Operating speed range (Average operating speed)	50 to 500 mm/s (Metal stopper with bumper: 50 to 300 mm/s) (Metal stopper: 50 to 200 mm/s) * in the standard stroke table on page 11: 50 to 300 mm/s					
Cushion (Without adjuster)	Internal rubber bumper					
Cushion (With adjuster)	Metal stopper with bumper, Rubber stopper, Shock absorber, Metal stopper					
Lubrication	Non-lube					
Auto switch	Solid state auto switch, Reed auto switch (2-wire, 3-wire) 2-color indicator solid state auto switch (2-wire, 3-wire)					
Stroke length tolerance	+2 to 0 mm					

*1 Refer to page 14 for the minimum operating pressure of the metal stopper with bumper. If the operating pressure is lower than the minimum operating pressure, the repeated accuracy will decline.

Minimum operating pressure of the metal stopper with bumper: Pressure required to fully compress the protrusion of the bumper to get in contact with the metal part
The operating pressure of the bore size 20 cylinder with shock absorber is 0.15 to 0.6 MPa.

Weight

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option			Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Extension stroke end For end lock	Retraction stroke end	Buffer	End lock	Axial piping
MXQ6A	130	130	170	190	210	—	—	—	—	-6	10	11 (9)	8	30	40	No addition
MXQ8A	140	160	180	210	270	290	—	—	—	-6	10	11 (9)	8	30	60	
MXQ12A	270	290	310	370	400	540	610	—	—	-12	20	22 (20)	16	70	80	
MXQ16A	480	510	550	630	670	810	1,000	1,100	—	-21	40	38 (34)	30	120	150	
MXQ20A	840	840	870	950	1,100	1,300	1,600	1,900	2,000	-33	70	62 (34)	50 (80)	190	400	
MXQ25A	1,400	1,400	1,500	1,500	1,900	2,000	2,300	2,900	3,100	-60	110	102 (95)	80	310	700	

* Value in () is the additional weight of the shock absorber.

Weight of Centralized Adjuster

Model	Standard stroke [mm]									Reduction only when the product comes with a retraction stroke end adjuster
	10	20	30	40	50	75	100	125	150	
MXQ6A	175	180	225	245	265	—	—	—	—	-10
MXQ8A	190	210	230	260	320	350	—	—	—	-10
MXQ12A	355	385	405	465	495	635	705	—	—	-20
MXQ16A	640	680	720	800	840	980	1,170	1,270	—	-40
MXQ20A	1,110 (-60)	1,140 (-60)	1,170 (-60)	1,250 (-60)	1,400 (-60)	1,600 (-60)	1,950 (-60)	2,250 (-60)	2,350 (-60)	-60 (-25)
MXQ25A	1,880	1,920	2,020	2,020	2,420	2,520	2,930	3,530	3,730	-100

* Value in () is the additional weight of the shock absorber.

Weight of Moving Parts

Model	Standard stroke [mm]									Reduction of the shorter total length type	Additional weight of adjuster option		Extra for option		
	10	20	30	40	50	75	100	125	150		Extension stroke end	Retraction stroke end	Buffer	End lock	Axial piping
MXQ6A	61	66	80	89	97	—	—	—	—	-6	10	8	30	10	No addition
MXQ8A	68	76	85	97	116	138	—	—	—	-6	10	8	30	10	
MXQ12A	143	154	168	192	206	263	300	—	—	-12	20	16	70	20	
MXQ16A	240	257	277	309	329	389	469	520	—	-21	40	30	120	35	
MXQ20A	408	410	437	464	503	588	747	815	882	-33	70	50 (80)	190	65	
MXQ25A	674	681	721	761	836	935	1,078	1,284	1,384	-60	110	80	310	110	

* Value in () is the additional weight of the shock absorber.

Theoretical Output



The dual rod ensures an output twice that of current cylinders. [N]

Bore size [mm]	Rod size [mm]	Operating direction	Piston area [mm ²]	Operating pressure [MPa]						
				0.2	0.3	0.4	0.5	0.6	0.7	
6	3	OUT	57	11	17	23	29	34	40	
		IN	42	8	13	17	21	25	29	
8	4	OUT	101	20	30	40	51	61	71	
		IN	75	15	23	30	38	45	53	
12	6	OUT	226	45	68	90	113	136	158	
		IN	170	34	51	68	85	102	119	
16	6	OUT	402	80	121	161	201	241	281	
		IN	346	69	104	138	173	207	242	
20	8	OUT	628	126	188	251	314	377	440	
		IN	528	106	158	211	264	317	369	
25	10	OUT	982	196	295	393	491	589	687	
		IN	825	165	247	330	412	495	577	

* When the metal stopper with bumper is used for positioning, the theoretical output may vary depending on the full compression force of the bumper. For details, refer to the adjuster specifications on page 14.

Symbol

Rubber bumper

