

Air Slide Table

Series MXQ

ø6, ø8, ø12, ø16, ø20, ø25

How to Order

MXQ 12 **50** **AS** **FR** **M9BW**

Port thread type

Nil	M thread	ø6 to ø16
TN	Rc	ø20, ø25
TF	NPT	
	G	

Symmetric type

Nil	Standard type
L	Symmetric type

Bore size/Stroke (mm)

ø6	10, 20, 30, 40, 50
ø8	10, 20, 30, 40, 50, 75
ø12	10, 20, 30, 40, 50, 75, 100
ø16	10, 20, 30, 40, 50, 75, 100, 125
ø20	10, 20, 30, 40, 50, 75, 100, 125, 150
ø25	10, 20, 30, 40, 50, 75, 100, 125, 150

Functional option

Nil	Standard type
F	With buffer
R ⁽²⁾	With end lock
P	Axial piping type
FR ⁽²⁾	With buffer and end lock
FP	With buffer, Axial piping type

Note 2) W/ end lock is not available in Series MXQ6.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch (Built-in magnet)
-----	---------------------------------------

* For the applicable auto switch model, refer to the table below.
* For the applicable auto switch to buffer, refer to page 95. It requires to order separately.

Adjuster option

Nil	Without adjuster
AS	Extension end adjuster
AT	Retraction end adjuster
A	Double end adjuster
BS ⁽¹⁾	Extension end absorber
BT ⁽¹⁾	Retraction end absorber
B ⁽¹⁾	Double absorber
CS	Extension end metal stopper
CT	Retraction end metal stopper
C	Double metal stopper
ASBT ⁽¹⁾	Extension end adjuster + Retraction end absorber
ASCT	Extension end adjuster + Retraction end metal stopper
BSAT ⁽¹⁾	Extension end absorber + Retraction end adjuster
BSCT ⁽¹⁾	Extension end absorber + Retraction end metal stopper
CSAT	Extension end metal stopper + Retraction end adjuster
CSBT ⁽¹⁾	Extension end metal stopper + Retraction end absorber

Note 1) W/ shock absorber is not available in Series MXQ6.

Option Combinations

Adjuster option	Functional option	Nil	F	R	P	FR	FP
Nil		○	○	○	○	○	○
AS		○	○ ⁽³⁾	○	○	○ ⁽³⁾	○ ⁽³⁾
AT		○	○	x	x	x	x
A		○	○ ⁽³⁾	x	x	x	x
BS		○	x	○	○	x	x
BT		○	○	x	x	x	x
B		○	x	x	x	x	x
CS		○	○ ⁽³⁾	○	○	○ ⁽³⁾	○ ⁽³⁾
CT		○	○	x	x	x	x
C		○	○ ⁽³⁾	x	x	x	x
ASBT		○	○ ⁽³⁾	x	x	x	x
ASCT		○	○ ⁽³⁾	x	x	x	x
BSAT		○	x	x	x	x	x
BSCT		○	x	x	x	x	x
CSAT		○	○ ⁽³⁾	x	x	x	x
CSBT		○	○ ⁽³⁾	x	x	x	x

○ : Available, x : Not available

Note 3) With the combination of buffer mechanism and extension end stroke adjuster, the buffer stroke decreases by the amount of stroke adjusted with the extension end stroke adjuster.

Applicable Auto Switch/Refer to pages 1719 to 1827 for the detailed specifications of 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	Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	M9NV	M9N	●	●	●	○	○	IC circuit Relay, PLC
				3-wire (PNP)			M9PV	M9P	●	●	●	○	○	
				2-wire			M9BV	M9B	●	●	●	○	○	
				3-wire (NPN)			M9NWV	M9NW	●	●	●	○	○	
				3-wire (PNP)			M9PWV	M9PW	●	●	●	○	○	
				2-wire			M9BWV	M9BW	●	●	●	○	○	
Reed switch		Grommet	Yes	3-wire (NPN equivalent)	24 V	5 V	A96V	A96	●	—	●	—	—	IC circuit
				2-wire			A93V	A93	●	—	●	—	—	Relay, PLC
			No	2-wire	24 V	12 V	A90V	A90	●	—	●	—	—	IC circuit

* 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 other applicable auto switches than listed, refer to page 128 for details.
* For details about auto switches with pre-wired connector, refer to pages 1784 and 1785.
* Auto switches are shipped together (not assembled).



Made to Order Specifications

(For details, refer to pages 1955 to 2021.)

Symbol	Specifications
-X7	PTFE grease
-X9	Grease for food
-X11	Adjusting bolt, long specification (Adjustment range: 15 mm)
-X12	Adjusting bolt, long specification (Adjustment range: 25 mm)
-X16	Heat treated metal stopper bolt (Adjustment range: 5 mm)
-X17	Heat treated metal stopper bolt (Adjustment range: 15 mm)
-X18	Heat treated metal stopper bolt (Adjustment range: 25 mm)
-X33	Without built-in auto switch magnet
-X39	Fluororubber seals
-X42	Anti-corrosive specifications for guide section
-X45	EPDM seals

For clean room specifications, refer to "Pneumatic Clean Series" catalog.

Specifications

Bore size (mm)	6	8	12	16	20	25	
Piping port size	M5 x 0.8				Rc 1/8, NPT 1/8, G 1/8		
Fluid	Air						
Action	Double acting						
Operating pressure	0.15 to 0.7 MPa						
Proof pressure	1.05 MPa						
Ambient and fluid temperature	−10 to 60°C						
Piston speed	50 to 500 mm/s (Adjuster option/Metal stopper: 50 to 200 mm/s)						
Cushion	Rubber bumper (Standard, Adjuster option/Rubber stopper) Shock absorber (Adjuster option/Shock absorber) None (Adjuster option/Metal stopper)						
Lubrication	Non-lube						
Auto switch	Reed auto switch (2-wire, 3-wire) Solid state auto switch (2-wire, 3-wire) 2-color indication solid state auto switch (2-wire, 3-wire)						
Stroke length tolerance	⁺¹ ₀ mm						

Option

Adjuster option	Rubber stopper	Extension end (AS)	Stroke adjustment range 0 to 5 mm
		Retraction end (AT)	
		Both ends (A)	
	Shock absorber	Extension end (BS)	W/ shock absorber is not available in Series MXQ6.
		Retraction end (BT)	
		Both ends (B)	
	Metal stopper	Extension end (CS)	Stroke adjustment range 0 to 5 mm
		Retraction end (CT)	
		Both ends (C)	
Functional option	With buffer (F)		W/ end lock is not available in Series MXQ6.
	With end lock (R)		
	Axial piping type (P)		



* For details of adjuster and functional option, refer to pages 94 and 95 in "Option Specifications".

Standard Stroke

Model	Standard stroke (mm)
MXQ 6	10, 20, 30, 40, 50
MXQ 8	10, 20, 30, 40, 50, 75
MXQ12	10, 20, 30, 40, 50, 75, 100
MXQ16	10, 20, 30, 40, 50, 75, 100, 125
MXQ20	10, 20, 30, 40, 50, 75, 100, 125, 150
MXQ25	10, 20, 30, 40, 50, 75, 100, 125, 150

MXH

MXU

MXS

MXQ

MXF

MXW

MXJ

MXP

MXY

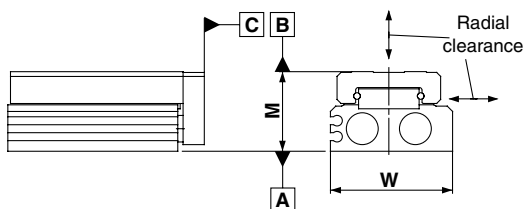
MTS

D-□

-X□

Individual
-X□

Table Accuracy



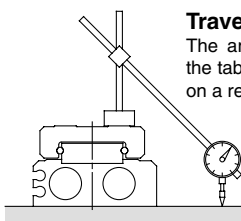
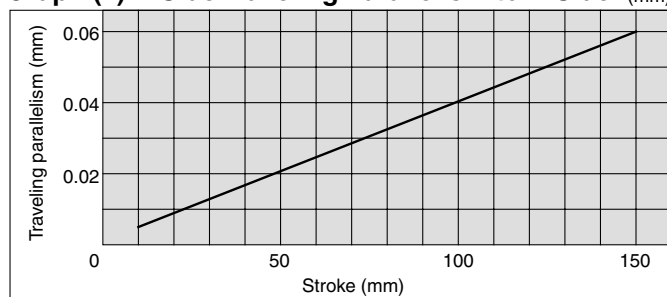
Model	MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
B side parallelism to A side	Refer to Table (1).					
B side traveling parallelism to A side	Refer to Graph (1).					
C side perpendicularity to A side	0.05 mm					
M dimension tolerance	±0.08 mm (±0.1 mm) *1					
W dimension tolerance	±0.1 mm					
Radial internal clearance (μm)	-4 to 0	-4 to 0	-6 to 0	-10 to 0	-12 to 0	-14 to 0

*1) ±0.1 mm for 75 mm or longer stroke

Table (1) B Side Parallelism to A Side (mm)

Model	Stroke (mm)								
	10	20	30	40	50	75	100	125	150
MXQ 6	0.025	0.03	0.035	0.04	0.045	—	—	—	—
MXQ 8	0.025	0.03	0.035	0.04	0.055	0.065	—	—	—
MXQ12	0.03	0.03	0.035	0.04	0.045	0.065	0.075	—	—
MXQ16	0.035	0.035	0.04	0.045	0.05	0.065	0.08	0.095	—
MXQ20	0.04	0.04	0.04	0.045	0.055	0.07	0.095	0.105	0.125
MXQ25	0.045	0.045	0.045	0.05	0.06	0.07	0.09	0.115	0.125

Graph (1) B Side Traveling Parallelism to A Side (mm)



Traveling parallelism:

The amount of deflection on a dial gauge when the table travels a full stroke with the body secured on a reference base surface.

Shock Absorber Specifications

Shock absorber model		RB0805	RB0806	RB1007	RB1411	RB1412
Applicable slide table		MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Max. energy absorption (J)		0.98	2.94	5.88	14.7	19.6
Stroke absorption (mm)		5	6	7	11	12
Max. collision speed (mm/s)		50 to 500				
Max. operating frequency (cycle/min)		80	80	70	45	45
Max. allowable thrust (N)		245	245	422	814	814
Ambient temperature range (°C)		-10 to 60				
Spring force (N)	Extended	1.96	1.96	4.22	6.86	6.86
	Retracted	3.83	4.22	6.86	15.30	15.98
Mass (g)		15	15	25	65	65

Note) The shock absorber service life is different from that of the MXQ cylinder depending on operating conditions. Refer to the RB Series Specific Product Precautions for the replacement period.



With End Lock Specifications

Model	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Bore size (mm)	8	12	16	20	25
Piston speed	50 to 500 mm/s				
Holding force (N)	25	60	110	160	250

Note) For caution on end lock, refer to page 132.



Buffer Mechanism Specifications

Model		MXQ6	MXQ8	MXQ12	MXQ16	MXQ20	MXQ25
Bore size (mm)		6	8	12	16	20	25
Piston speed		50 to 500 mm/s (Horizontal mounting 50 to 300 mm/s)					
Buffer stroke (mm)		5		10			
Buffer stroke load (N)	Stroke at 0 (mm)	3	5	10	13	17	21
	Maximum stroke	6	8	13	17	25	29



Note 1) For caution on handling the one with buffer mechanism, refer to page 132.

Note 2) The buffer stroke decreases by the amount of stroke adjusted with the extension end stroke adjuster.

Applicable Auto Switch to Buffer

Type	model	Specifications	Electrical entry direction
Solid state switch	D-M9BV	With light, 2-wire	Vertical
	D-M9NV	With light, 3-wire, Output: NPN	
	D-M9PV	With light, 3-wire, Output: PNP	

* The auto switch for buffer must be ordered separately.

MXH

MXU

MXS

MXQ

MXF

MXW

MXJ

MXP

MXY

MTS

D-□

-X□

Individual
-X□