



Pneumatic Cylinders I
Catalog No. CB-029SA

Magnet rodless cylinder

- Basic **MRL2 Series**
- Simplified guide 1-piston **MRL2-G Series**
- simplified guide 2-piston **MRL2-W Series**
- Bore size: $\varnothing 6, \varnothing 10, \varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32$

JIS symbol



Specifications

Item	MRL2(L) , MRL2-G(L) , MRL2-W(L)							
Bore size	mm	$\varnothing 6$	$\varnothing 10$	$\varnothing 16$	$\varnothing 20$	$\varnothing 25$	$\varnothing 32$	
Actuation		Double acting						
Working fluid		Compressed air						
Max. working pressure	MPa	0.7						
Min. working pressure	MPa	0.3 (*1)			0.2			
Proof pressure	MPa	1.05						
Ambient temperature	°C	-10 to 60 (fine speed: 5 to 60) (no freezing)						
Port size		M5				Rc1/8		
Stroke tolerance	mm	$+1.5_0$ (up to 1000)			$+2.0_0$ (up to 1500)			
Working piston speed	mm/s	50 to 500 (fine speed: 1 to 200)						
Cushion		Rubber cushion						
Lubrication		Not available						
Magnet holding force (*2)	N	19	63	166	294	350	574	
Adjustable stroke range (single side) (*3) mm		3	4	6	8.5	10	10	

*1: MRL2-G-6-C (with shock absorber) is 0.4MPa.
 *2: The simplified guide 2-piston (W) will be a 2-fold value.
 *3: The Stroke of MRL2 (basic) cannot be adjusted.

Stroke

Bore size (mm)	Standard Stroke (mm)	Max. Stroke (mm)	Max. value with switch Stroke (mm)	Common piping with switch Max. Stroke (mm)	Max. fine speed Stroke (mm)	Min. Stroke (mm)
$\varnothing 6$	50, 100, 150, 200	300	200	-	300	1
$\varnothing 10$	50, 100, 150, 200, 250, 300	500	300	300	500	
$\varnothing 16$	100, 150, 200, 250, 300, 400, 500	1000	500	500	800	
$\varnothing 20$	200, 250, 300, 350, 400, 500, 600, 700	1500	700	700	800	
$\varnothing 25$	200, 250, 300, 350, 400, 500, 600, 700	1500	700	700	800	
$\varnothing 32$	200, 250, 300, 350, 400, 500, 600, 700	1500	700	700	700	

■ The custom stroke length is available in 1 mm increments.

Compatibility table by variation

Applicable bore size	P4	Double acting/basic
		●
ø6 to 32	P4	●
	P40	●

●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable
*1: Electrolytic nickel plating is used in the magnet.

How to order

Without switch



With switch



A Model No.

B Bore size

C Cushion
*2

D Stroke
*3

E Switch model No.

F Switch quantity

G Option
*4

⚠ Precautions for model No. selection

*1: When the cushion is a rubber cushion (blank), the port thread will be the following.
NPT thread: NN G thread: GN

*2: In the case of MRL2-G and W with the "C" rubber-air cushion, the stopper protrudes from the end plate by approximately 1 mm at shipment. Note that the rubber-air cushion may not function if the stopper is moved to adjust the stroke.

*3: Refer to the following table for the max. Stroke with switch.

*4: When selecting common piping with "R" switch, select the type with switch (MRL2-L) for the model No.

Bore size (mm)	Max. Stroke with switch (mm)
ø6	200
ø10	300
ø16	500
ø20	700
ø25	700
ø32	700

Code		Description
A Model No.		
Basic	MRL2	Without switch
	MRL2-L	With switch
Simplified guide 1-piston type	MRL2-G	Without switch
	MRL2-GL	With switch
Simplified guide 2-piston Type	MRL2-W	Without switch
	MRL2-WL	With switch
B Bore size (mm)		
6	ø6	
10	ø10	
16	ø16	
20	ø20	
25	ø25	
32	ø32	
C Cushion		
Blank	Rubber cushion	
C	Rubber-air cushion	
D Stroke (mm)		
Bore size	Stroke	Custom Stroke
ø6	1 to 300	In 1 mm increments
ø10	1 to 500	
ø16	1 to 1000	
ø20 to ø32	1 to 1500	
E Switch model No.		
Refer to the compatibility table on Intro Pages 23 to 26 for switch model No.		
F Switch quantity		
R	1 on R side	
L	1 on L side	
D	2	
T	3	
4	4 (when there are more than 4 switches, indicate switch quantity.)	
G Option		
C	With shock absorber (basic cannot be selected.)	
S	With scraper (fine speed cannot be selected.)	
R	Common piping with switch (Basic and ø6 cannot be selected.)	

Related products

Speed controller							
Model No.	Appearance	Port size (Rc or R)		Compatible tube O.D.			Description page
		M5	1/8	4 (ø4)	6(ø6)	8(ø8)	
SC3W-M5-*P4		●		●	●		530
SC3W-6-*P4			●	●	●	●	

Specify the compatible tube O.D. code for *.

P4 Series

Pneumatic cylinders
Hand/Chuck
Related products
Cylinder Switch

Vacuum components
Pneumatic valves

Clean air components
Speed controller
Fitting
Auxiliary valve
Silencer
Tube

Pneumatic auxiliary components
Gas generator
Fluid control components

Motor specification
Motorless specifications
Electric actuator