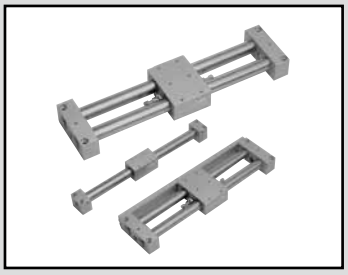
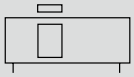


Magnet rodless cylinder

· Basic **MRL2-(F) Series**
· Simplified guide 1-piston **MRL2-G(F) Series**
· Simplified guide 2-piston **MRL2-W(F) Series**

● Bore size: ø6, ø10, ø16, ø20, ø25, ø32

JIS symbol



RoHS CAD

Specifications

Item		MRL2(L,F) , MRL2-G(L,F) , MRL2-W(L,F)					
Bore size	mm	ø6	ø10	ø16	ø20	ø25	ø32
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure	MPa	0.7 (≈100 psi, 7 bar)					
Min. working pressure	MPa	0.3 (≈44 psi, 3 bar) (*1)		0.2 (≈29 psi, 2 bar)			
Proof pressure	MPa	1.05 (≈150 psi, 10.5 bar)					
Ambient temperature	°C	-10 (14°F) to 60 (140°F) (fine speed: 5 (41°F) to 60 (140°F)) (no freezing)					
Port size		M5				Rc1/8	
Stroke tolerance	mm	$^{+1.5}_{0}$ (to 1000)			$^{+2.0}_{0}$ (to 1500)		
Working piston speed	mm/s	50 to 500 (fine speed: 1 to 200)					
Cushion		Rubber cushion					
Lubrication		Not required (use turbine oil ISO VG32 if necessary for lubrication); However, not available with fine speed					
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: The value for MRL2-G-6-C (with shock absorber) is 0.4.
*2: The simplified guide 2-piston (W) will be a 2-fold value.
*3: The stroke length of MRL2 (basic) cannot be adjusted.

Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Max. stroke with switch (mm)	Max. stroke length (mm) of common piping with switch	Max. stroke length of fine speed (mm)	Min. stroke length (mm)
ø6	50, 100, 150, 200	300	200	-	300	1
ø10	50, 100, 150, 200, 250, 300	500	300	300	500	
ø16	100, 150, 200, 250, 300, 400, 500	1000	500	500	800	
ø20	200, 250, 300, 350, 400, 500, 600, 700	1500	700	700	800	
ø25	200, 250, 300, 350, 400, 500, 600, 700	1500	700	700	800	
ø32	200, 250, 300, 350, 400, 500, 600, 700	1500	700	700	700	

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

Number of installed T type switches and min. stroke length (mm)

Switch quantity	1				2				3				4			
Switch model No. / Bore size (mm)	T*V	T*H	T*YV	T*YH	T*V	T*H	T*YV	T*YH	T*V	T*H	T*YV	T*YH	T*V	T*H	T*YV	T*YH
ø6 or equiv.	5	5	5	5	20	50	40	70	40	85	71	115	60	120	101	160
ø10 or equiv.	5	5	5	5	20	50	40	70	40	85	71	115	60	120	101	160
ø16 or equiv.	5	5	5	5	20	50	40	70	40	85	71	115	60	120	101	160
ø20 or equiv.	5	5	5	5	20	50	40	70	40	85	71	115	60	120	101	160
ø25 or equiv.	5	5	5	5	20	50	40	70	40	85	71	115	60	120	101	160
ø32 or equiv.	5	5	5	5	20	50	40	70	40	85	71	115	60	120	101	160

*T1H has the same min. stroke length as T*YH and T1V the same as T*YV.

Switch specifications

● 1-color/2-color display

Item	Proximity 2-wire				Proximity 3-wire			
	T1H/T1V	T2H/T2V	T2YH/T2YV	T2WH/T2WV	T3H/T3V	T3PH/T3PV	T3YH/T3YV	T3WH/T3WV
Applications	For programmable controller, relay, compact solenoid valve	Dedicated for programmable controller			For programmable controller, relay			
Output method	-				NPN output	PNP output	NPN output	NPN output
Power supply voltage	-				10 to 28 VDC			
Load voltage	85 to 265 VAC	10 to 30 VDC		24 VDC ±10%	30 VDC or less			
Load current	5 to 100 mA	5 to 20 mA (*3)			100 mA or less		50 mA or less	
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)
Leakage current	1 mA or less with 100 VAC, 2 mA or less with 200 VAC	1 mA or less			10 μA or less			
Weight g	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80	1 m:18 3 m:49 5 m:80		1 m:33 3 m:87 5 m:142	1 m:18 3 m:49 5 m:80

*1: Refer to Ending Page 1 for detailed switch specifications and dimensions.
*2: Switches other than the above models, such as switches with connectors, are also available. Refer to Ending Page 1.
*3: The max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

Cylinder weight

Unit (g)

Model No.	Without switch		With switch		Common piping with switch	
	Weight for 0 mm stroke length	Additional weight per S = 100mm	Weight for 0 mm stroke length	Additional weight per S = 100mm	Weight for 0 mm stroke length	Additional weight per S = 100mm
MRL2-6	73	13	103	39	-	-
MRL2-10	143	28	169	48	-	-
MRL2-16	278	43	313	63	-	-
MRL2-20	542	85	587	105	-	-
MRL2-25	954	98	1017	128	-	-
MRL2-32	1230	195	1301	225	-	-
MRL2-G-6	193	28	223	54	-	-
MRL2-G-10	368	53	394	73	411	94
MRL2-G-16	635	85	670	105	691	126
MRL2-G-20	1197	155	1242	175	1269	196
MRL2-G-25	1852	196	1915	226	1997	289
MRL2-G-32	2297	390	2368	420	2455	483
MRL2-W-6	203	28	233	54	-	-
MRL2-W-10	398	53	424	73	441	94
MRL2-W-16	710	85	745	105	766	126
MRL2-W-20	1367	155	1412	175	1439	196
MRL2-W-25	2206	196	2269	226	2351	289
MRL2-W-32	2859	390	2930	420	3017	483

*1: The weight of the switch is not included in the product weight of types with switch and common piping with switch.

Theoretical thrust table

● MRL2,MRL2-G

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa					
		0.2	0.3	0.4	0.5	0.6	0.7
ø6	Push/Pull	-	8.48	11.3	14.1	17.0	19.8
ø10	Push/Pull	-	23.6	31.4	39.3	47.1	55.0
ø16	Push/Pull	40.2	60.3	80.4	1.01×10^2	1.21×10^2	1.41×10^2
ø20	Push/Pull	62.8	94.2	1.26×10^2	1.57×10^2	1.88×10^2	2.20×10^2
ø25	Push/Pull	98.2	1.47×10^2	1.96×10^2	2.45×10^2	2.95×10^2	3.44×10^2
ø32	Push/Pull	1.61×10^2	2.41×10^2	3.22×10^2	4.02×10^2	4.83×10^2	5.63×10^2

● MRL2-W

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa					
		0.2	0.3	0.4	0.5	0.6	0.7
ø6	Push/Pull	-	17.0	22.6	28.3	33.9	39.6
ø10	Push/Pull	-	47.1	62.8	78.5	94.2	1.10×10^2
ø16	Push/Pull	80.4	1.21×10^2	1.61×10^2	2.01×10^2	2.41×10^2	2.81×10^2
ø20	Push/Pull	1.26×10^2	1.88×10^2	2.51×10^2	3.14×10^2	3.77×10^2	4.40×10^2
ø25	Push/Pull	1.96×10^2	2.95×10^2	3.93×10^2	4.91×10^2	5.89×10^2	6.87×10^2
ø32	Push/Pull	3.22×10^2	4.83×10^2	6.43×10^2	8.04×10^2	9.65×10^2	1.13×10^3

How to order

Without switch (without magnet for switch)

MRL2-W – 6 ○ C – 50 ——— C

With switch (built-in magnet for switch)

MRL2-WL – 6 ○ C – 50 – T2H – R – C

Ⓐ Model No.
Ⓑ Bore size
Ⓒ Port thread *1
Ⓓ Cushion *2
Ⓔ Stroke length *3
Ⓕ Switch model No. * indicates the lead wire length. *5
Ⓖ Switch quantity
Ⓗ Option *6

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 length.

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

*4 : Refer to page 1740 for min. stroke length with switch and max. stroke length for fine speed.

*5 : Switches other than Ⓕ Switch model No. are also available. (Made to order) Refer to Ending Page 1 for details.

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

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

[Example of model No.]

MRL2-WL-10-50-T2H-R-C

Model: Rodless cylinder

Ⓐ Model No. : Simplified guide 2-piston
Ⓑ Bore size : ø10 mm
Ⓒ Port thread : Rc thread
Ⓓ Cushion : Rubber cushion
Ⓔ Stroke length : 50 mm
Ⓕ Switch model No. : Proximity switch T2H
Ⓖ Switch quantity : 1 on R side
Ⓗ Option : With shock absorber

Code		Description
Ⓐ Model No.		
Basic	MRL2	Without switch
	MRL2-L	With switch
	MRL2-F	Fine speed
	MRL2-LF	Fine speed, with switch
Simplified guide 1-piston	MRL2-G	Without switch
	MRL2-GL	With switch
	MRL2-GF	Fine speed
	MRL2-GLF	Fine speed, with switch
Simplified guide 2-piston	MRL2-W	Without switch
	MRL2-WL	With switch
	MRL2-WF	Fine speed
	MRL2-WLF	Fine speed, with switch

Ⓑ Bore size (mm)	
6	ø6
10	ø10
16	ø16
20	ø20
25	ø25
32	ø32

Ⓒ Port thread	
Blank	Rc thread
N	NPT thread (ø25 and over) (made-to-order product)
G	G thread (ø25 and over) (made-to-order product)

Ⓓ Cushion	
Blank	Rubber cushion
C	Rubber-air cushion

Ⓔ Stroke length (mm)

Bore size	Stroke length *4	Custom stroke length
ø6	**1 to 300**	**In 1 mm increments**
ø10	**1 to 500**	
ø16	**1 to 1000**	
ø20 to ø32	**1 to 1500**	

Ⓕ Switch model No.

Axial lead wire	Radial lead wire	Contact	Voltage AC	Voltage DC	Display	Lead wire
T1H*	**T1V***	Proximity	●		1-color display	2-wire
T2H*	**T2V***			●		
T3H*	**T3V***			●		3-wire
T2WH*	**T2WV***			●	2-color display	2-wire
T2YH*	**T2YV***			●		
T3WH*	**T3WV***			●		3-wire
T3YH*	**T3YV***			●		
T3PH*	**T3PV***			●	1-color display	

*** Lead wire length**	
Blank	1 m (standard)
3	3 m (option)
5	5 m (option)

Ⓖ 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.)

Ⓗ 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.)

How to order switch

SW – T2H

Switch model No.
(Item Ⓕ on page 1742)

How to order discrete shock absorber

Used when changing from the standard to that with a shock absorber

MRL2 – W/G – 25 – C

Bore size
(Item Ⓑ on page 1742)

· Shock absorber and mounting nut (hexagon nut) set of 1 each.

(Reference)
Applicable shock absorber model No.

Model	Shock absorber model No.
MRL2-W-6, MRL2-G-6	NCK-00-0.1
MRL2-W-10, MRL2-G-10	NCK-00-0.1-C
MRL2-W-16, MRL2-G-16	NCK-00-0.3-C
MRL2-W-20, MRL2-G-20	NCK-00-0.7-C
MRL2-W-25, MRL2-G-25	NCK-00-1.2-C
MRL2-W-32, MRL2-G-32	NCK-00-1.2-C

Clean-room specifications (Catalog No. CB-033SA)

● Anti-dust generation structure for use in cleanrooms

MRL2 - * - ····· - P72

MRL2 - * - ····· - P52

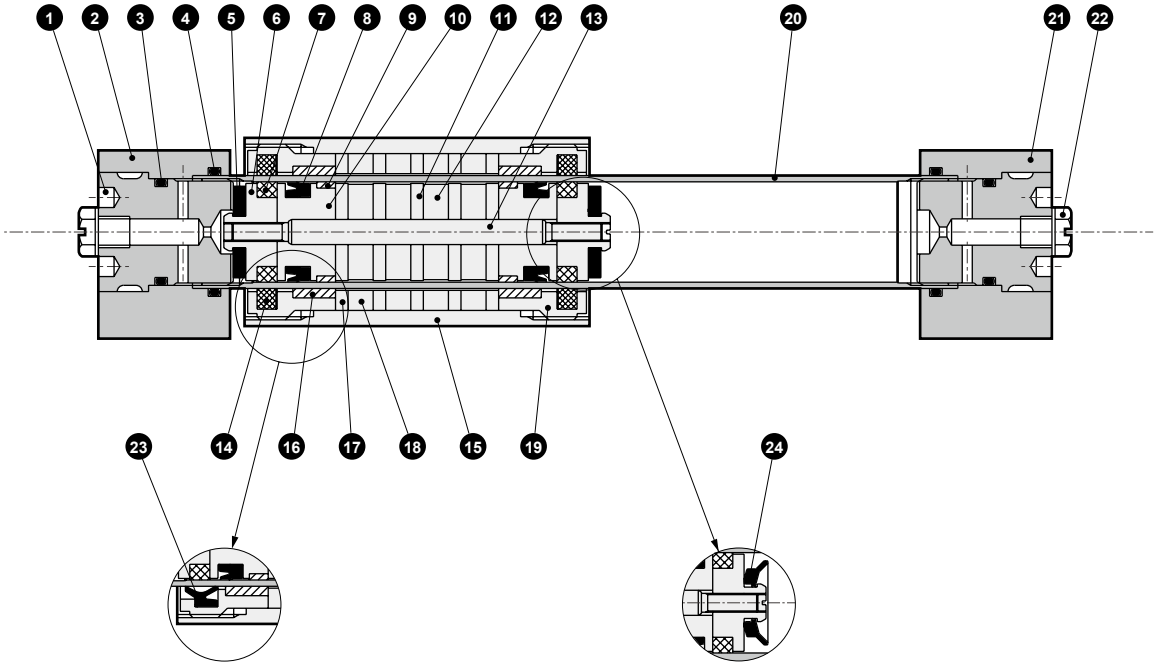
Specifications for rechargeable battery (Catalog No. CC-1226A)

● Design compatible with rechargeable battery manufacturing process

MRL2 - ····· - P4*

Internal structure and parts list MRL2 (basic)

● MRL2 (basic)



With scraper
option codes “S” and “P72”

Cushion code “C”
Rubber-air cushioned

Cannot be disassembled

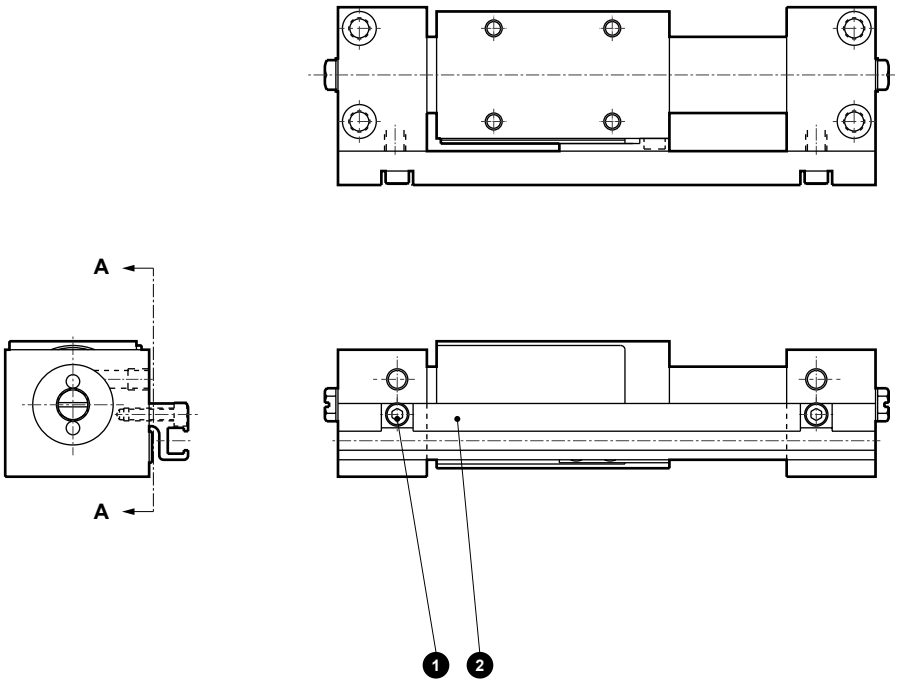
Parts list

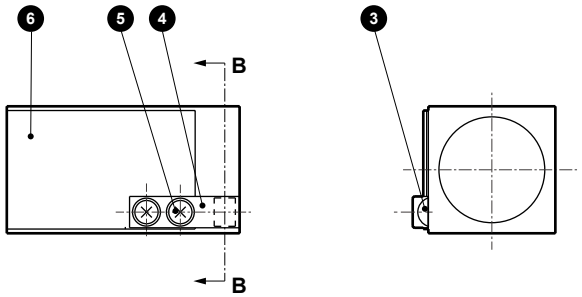
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	End cap	Aluminum alloy	Chromate	13	Piston shaft	Stainless steel	
2	End plate (L)	Aluminum alloy	Alumite	14	Lube keeping structure (for slider)	Special rubber	None with P72
3	O-ring	Nitrile rubber		15	Slider	Aluminum alloy	Alumite
4	O-ring	Nitrile rubber		16	Slider wear ring	Polyacetal resin	
5	Cushion rubber	Urethane rubber		17	Slider yoke	Steel	Zinc chromate
6	Piston (2)	Aluminum alloy	Chromate	18	Magnet	Special alloy	
7	Lube keeping structure (for piston)	Special rubber		19	Slider cover	Aluminum alloy	Chromate
8	Piston packing	Nitrile rubber		20	Cylinder tube	Stainless steel	
9	Piston wear ring	Polyacetal resin		21	End plate (R)	Aluminum alloy	Alumite
10	Piston (1)	Aluminum alloy	Chromate	22	Plug	Copper alloy or steel	
11	Piston yoke	Steel	Zinc chromate	23	Scraper	Urethane rubber	
12	Magnet	Special alloy		24	Rubber-air cushion	Special rubber	

Note: The magnetic strength of the embedded magnet is powerful. Do not disassemble.

Internal structure and parts list MRL2 (basic)

● MRL2-L (with switch)

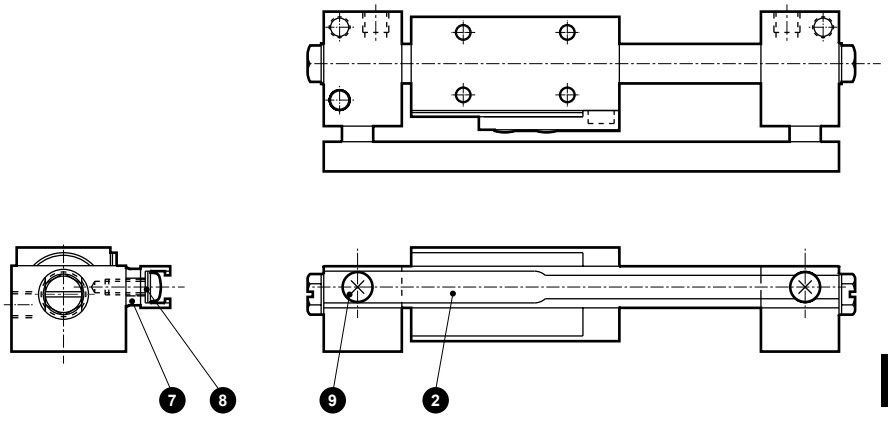




A-A arrow view　　Cross section B-B

Cannot be disassembled

● Only available with MRL2-L-6



Cannot be disassembled

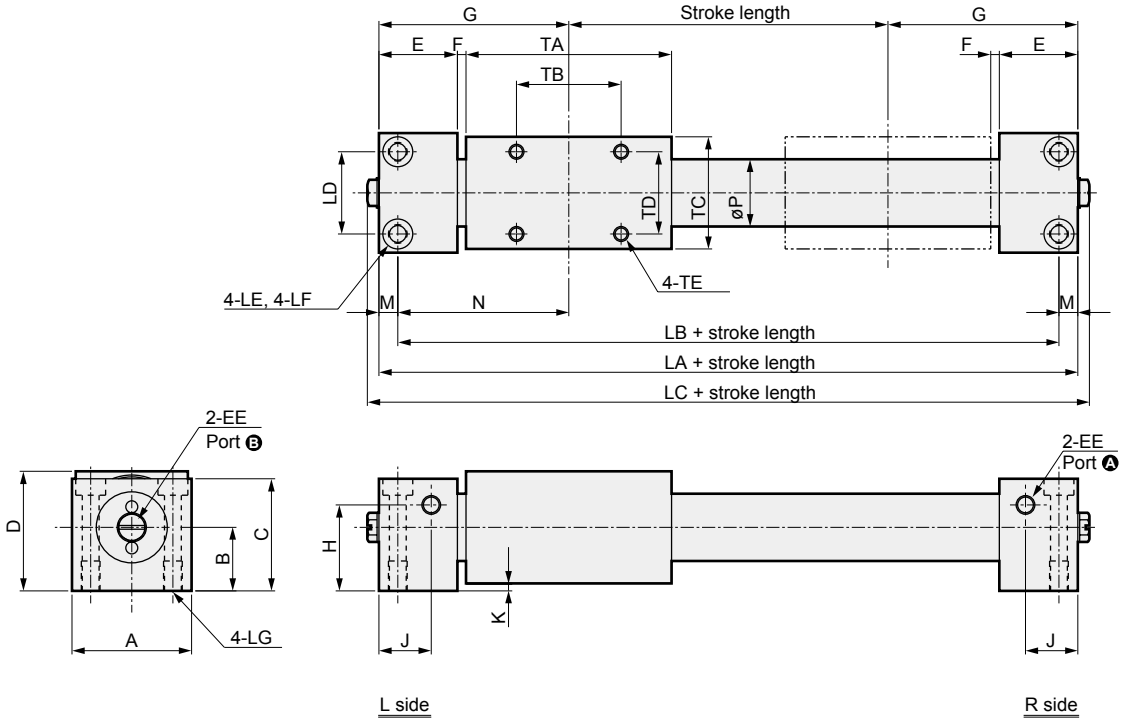
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Hexagon socket head cap screw	Stainless steel		6	Shield plate	Steel	Nickeling
2	Switch rail	Aluminum alloy	Alumite	7	Spacer	Copper alloy	Nickeling
3	Magnet	Special alloy		8	Plain washer	Stainless steel	
4	Magnet holder	Polyacetal resin		9	Cross-recessed pan head machine screw	Stainless steel	
5	Cross-recessed pan head machine screw	Stainless steel					

Dimensions: MRL2 (basic)

CAD

● MRL2 (basic) without switch



Note: It is possible to select A and B for air piping port.
The unit will be shipped with the plug assembled onto port B.
· ø6 to ø20: Plug (FPL-M5)
· ø25, ø32: Hexagon socket head cap taper thread plug

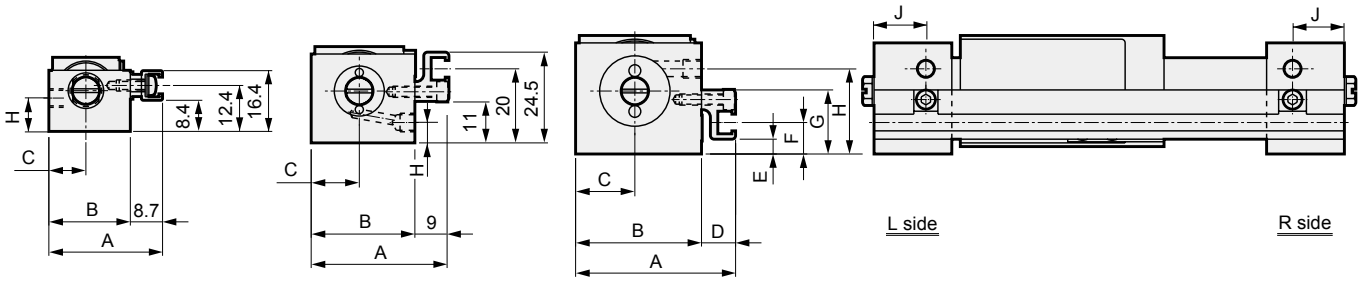
Code	Dimensions					Mounting dimensions							
Bore size (mm)	LA	LC	A	C	D	LB	LD	LE	LF	LG	TB	TD	TE
ø6	74	80.2	20	16.5	20	68	14	ø3.5	-	M4 depth 6	20	12	M3 depth 4.5
ø10	80	86.2	26	24	26	72	18	ø3.5	ø6.5 spot face depth 3.3	M4 depth 8	20	18	M3 depth 4.5
ø16	102	108.2	32	30	32	92	22	ø4.5	ø8 spot face depth 4.4	M5 depth 8	28	22	M4 depth 6
ø20	128	134.2	38	36	38	116	26	ø5.5	ø9.5 spot face depth 5.4	M6 depth 12	44	26	M4 depth 6
ø25	130	132.2	52	45	48	118	40	ø5.5	ø9.5 spot face depth 5.4	M6 depth 12	40	30	M6 depth 6
ø32	138	140.2	60	53	56	124	46	ø6.9	ø11 spot face depth 6.5	M8 depth 12	40	40	M6 depth 9

Code	General dimensions												
Bore size (mm)	B	E	EE	F	G	H	J	K	M	N	P	TA	TC
ø6	11	15	M5 depth 4	2	37	9	9.5	2	3	34	7.6	40	18
ø10	14	18	M5 depth 4	2	40	5.5	10	2	4	36	12	40	24
ø16	17	21	M5 depth 4	2.5	51	23	14	2	5	46	18	55	30
ø20	20	24	M5 depth 4	3	64	28	15.5	2	6	58	23	74	36
ø25	25.5	27	Rc1/8	3	65	29	17	3	6	59	28	70	45
ø32	29.5	27	Rc1/8	3	69	37	17	3	7	62	35	78	53

Dimensions: MRL2 (basic)

● MRL2-L (basic) with switch

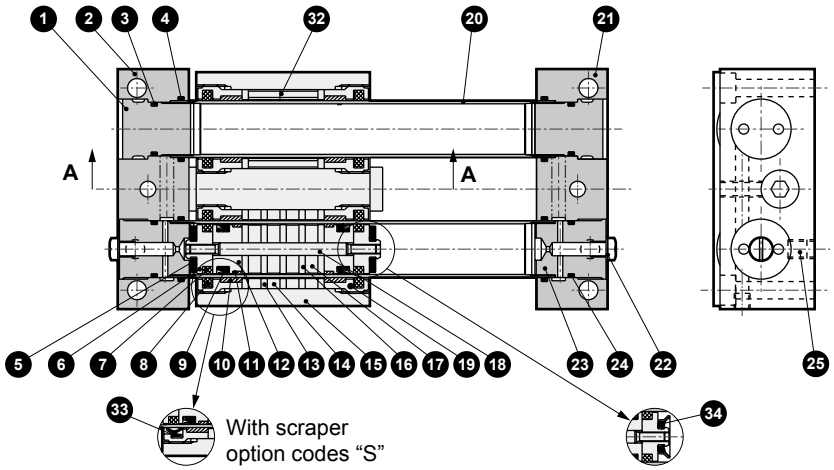
● For ø6 ● For ø10 ● For ø16 to ø32

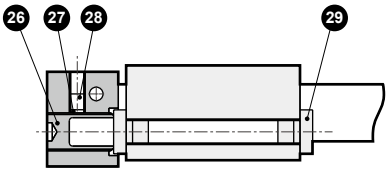


Code / Bore size (mm)	A	B	C	D	E	F	G	H	J
ø6	30.7	22	10	-	-	-	-	9	9.5
ø10	37	28	13	-	-	-	-	5.5	10
ø16	43	34	16	9.0	4	8.5	17.3	23	14
ø20	49	40	19	9.0	9	13.5	22.3	28	15.5
ø25	60.7	52	26	8.7	2	7.5	21	29	17
ø32	68.7	60	30	8.7	10	15.5	29	37	17

Internal structure and parts list MRL2-G (simplified guide 1-piston)

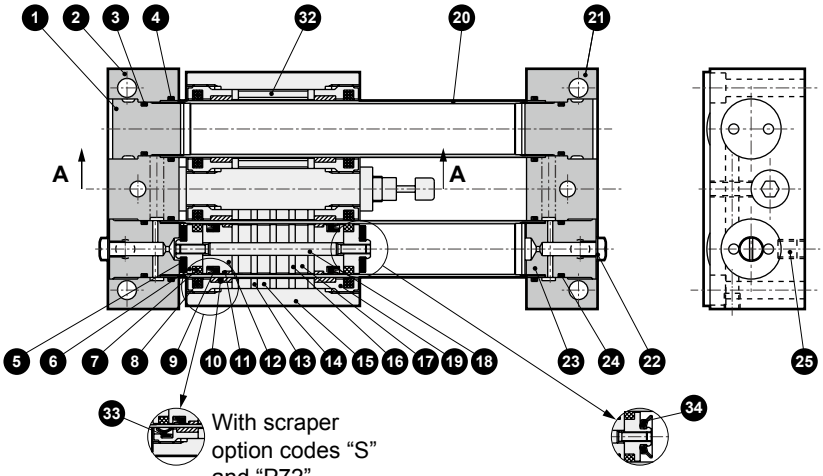
● MRL2-G (simplified guide 1-piston)

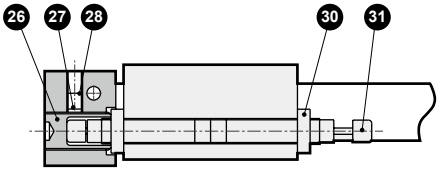




A-A sectional view

● MRL2-G-*-C (with shock absorber)





A-A sectional view

Cannot be disassembled

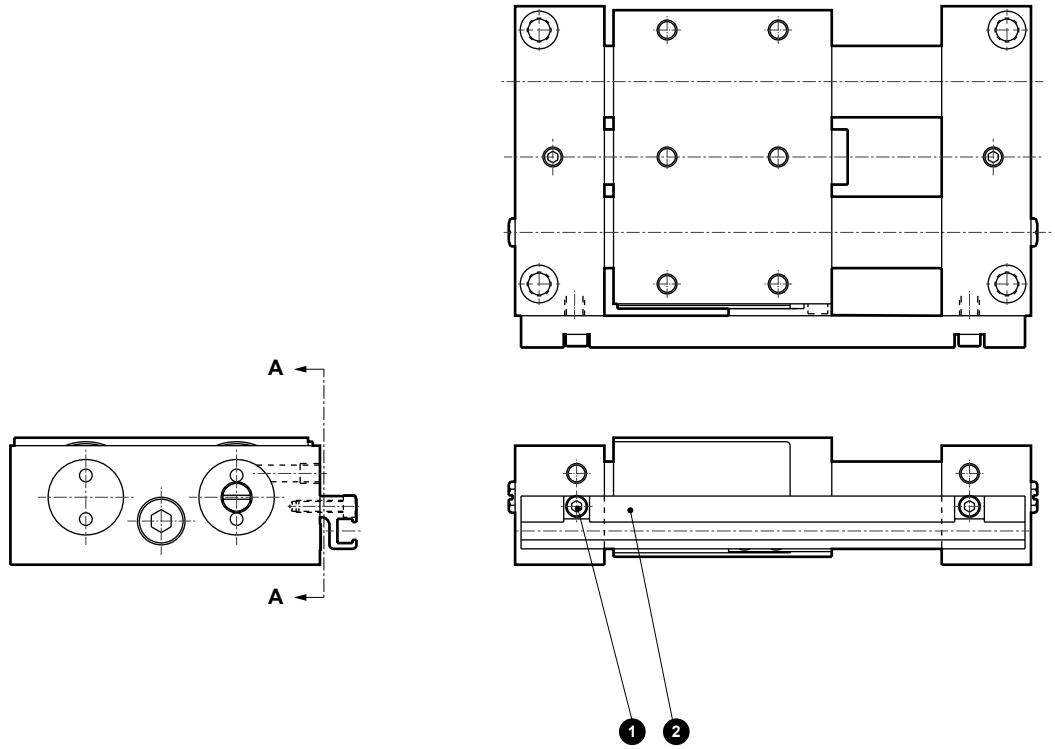
Parts list

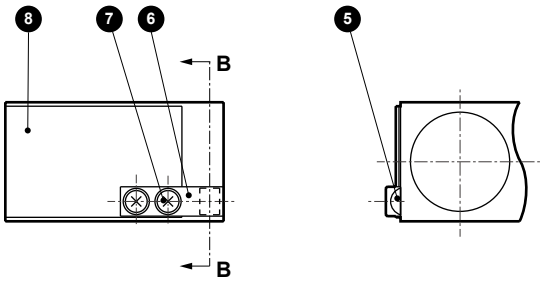
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	End cap	Aluminum alloy	Chromate	18	Piston shaft	Stainless steel	
2	End plate (L)	Aluminum alloy	Alumite	19	Slider cover	Aluminum alloy	Chromate
3	O-ring	Nitrile rubber		20	Cylinder tube	Stainless steel	
4	O-ring	Nitrile rubber		21	End plate (R)	Aluminum alloy	Alumite
5	Cushion rubber	Urethane rubber		22	Plug	Copper alloy or steel	
6	Piston (2)	Aluminum alloy	Chromate	23	End cap	Aluminum alloy	Chromate
7	Lube keeping structure (for piston)	Special rubber		24	O-ring	Nitrile rubber	
8	Lube keeping structure (for slider)	Special rubber	None with P72	25	Hexagon socket set screw	Alloy steel	
9	Piston packing	Nitrile rubber		26	Stopper	Alloy steel	Nickeling
10	Slider wear ring	Polyacetal resin		27	Set shoe	Aluminum alloy	
11	Piston wear ring	Polyacetal resin		28	Hexagon socket set screw	Stainless steel	
12	Piston (1)	Aluminum alloy	Chromate	29	Stopper bolt	Steel	Nickeling
13	Slider yoke	Steel	Zinc chromate	30	Hexagon nut	Steel	
14	Magnet	Special alloy		31	Shock absorber		
15	Slider	Aluminum alloy	Alumite	32	Spacer	Stainless steel	
16	Piston yoke	Steel	Zinc chromate	33	Scraper	Urethane rubber	
17	Magnet	Special alloy		34	Rubber-air cushion	Special rubber	

Note: The magnetic strength of the magnet is powerful. Do not disassemble.

Internal structure and parts list MRL2-G (simplified guide 1-piston)

● MRL2-GL (with switch)



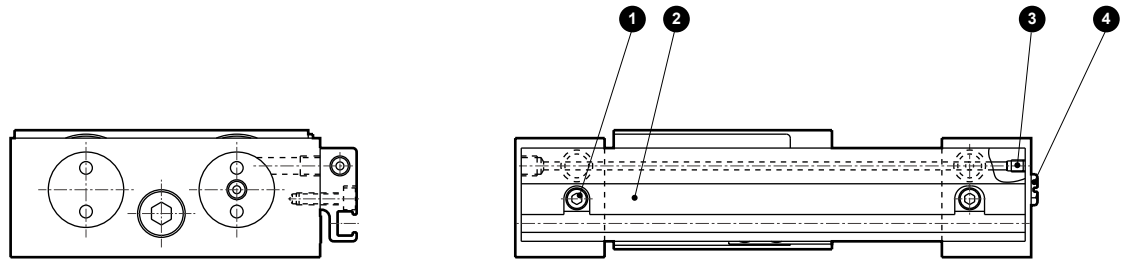


A-A arrow view

Cross section B-B

Cannot be disassembled

● MRL2-GL-*-R (common piping with switch)



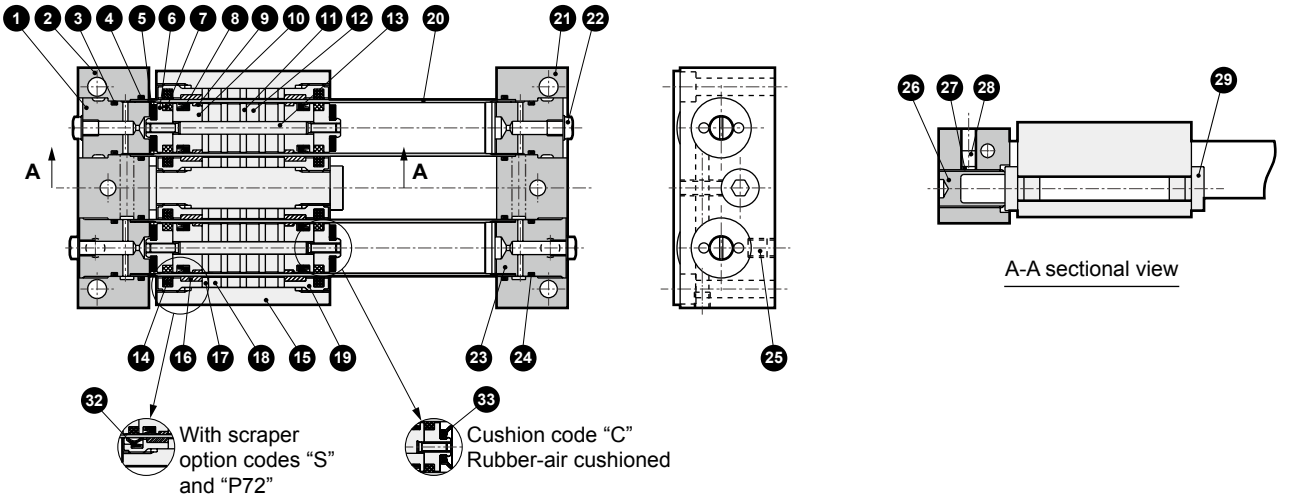
Cannot be disassembled

Parts list

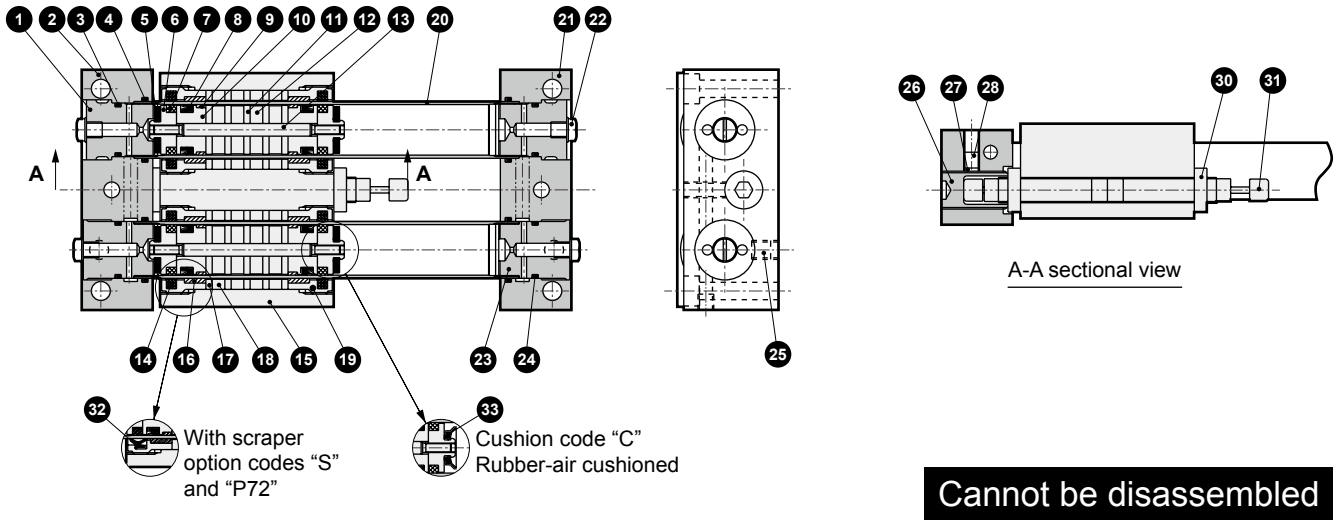
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Hexagon socket head cap screw	Stainless steel		5	Magnet	Special alloy	
2	Switch rail	Aluminum alloy	Alumite	6	Magnet holder	Polyacetal resin	
3	Hexagon socket set screw	Stainless steel		7	Cross-recessed pan head machine screw	Stainless steel	
4	Plug	Copper alloy or steel		8	Shield plate	Steel	Nickeling

Internal structure and parts list MRL2-W (simplified guide 2-piston)

● MRL2-W (simplified guide 2-piston)



● MRL2-W-*-C (with shock absorber)



Cannot be disassembled

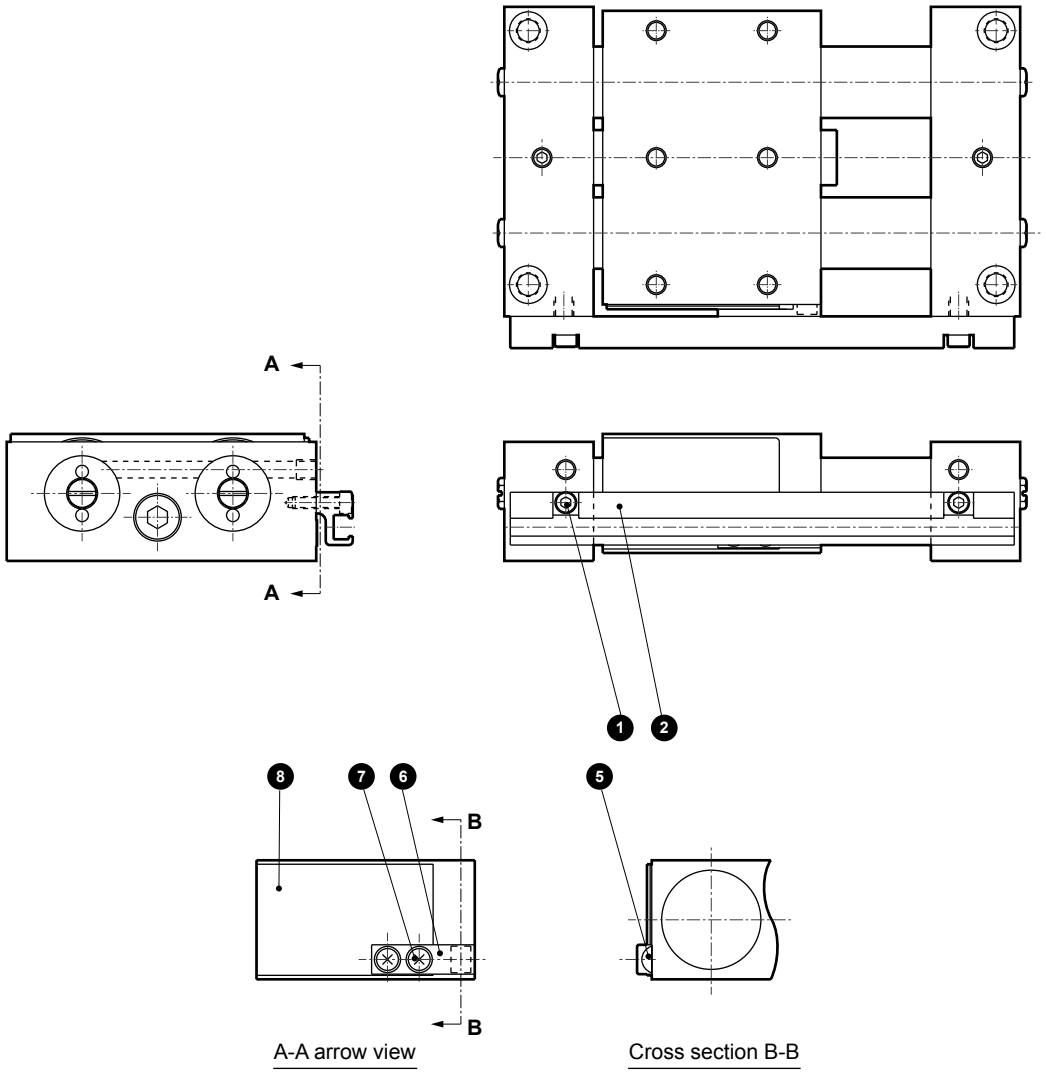
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	End cap	Aluminum alloy	Chromate	17	Slider yoke	Steel	Zinc chromate
2	End plate (L)	Aluminum alloy	Alumite	18	Magnet	Special alloy	
3	O-ring	Nitrile rubber		19	Slider cover	Aluminum alloy	Chromate
4	O-ring	Nitrile rubber		20	Cylinder tube	Stainless steel	
5	Cushion rubber	Urethane rubber		21	End plate (R)	Aluminum alloy	Alumite
6	Piston (2)	Aluminum alloy	Chromate	22	Plug	Copper alloy or steel	
7	Lube keeping structure (for piston)	Special rubber		23	End cap	Aluminum alloy	Chromate
8	Piston packing	Nitrile rubber		24	O-ring	Nitrile rubber	
9	Piston wear ring	Polyacetal resin		25	Hexagon socket set screw	Alloy steel	
10	Piston (1)	Aluminum alloy	Chromate	26	Stopper	Alloy steel	Nickeling
11	Piston yoke	Steel	Zinc chromate	27	Set shoe	Aluminum alloy	
12	Magnet	Special alloy		28	Hexagon socket set screw	Stainless steel	
13	Piston shaft	Stainless steel		29	Stopper bolt	Steel	Nickeling
14	Lube keeping structure (for slider)	Special rubber		30	Hexagon nut	Steel	
15	Slider	Aluminum alloy	Alumite	31	Shock absorber		
16	Slider wear ring	Polyacetal resin		32	Scraper	Urethane rubber	
				33	Rubber-air cushion	Special rubber	

Note: The magnetic strength of the magnet is powerful. Do not disassemble.

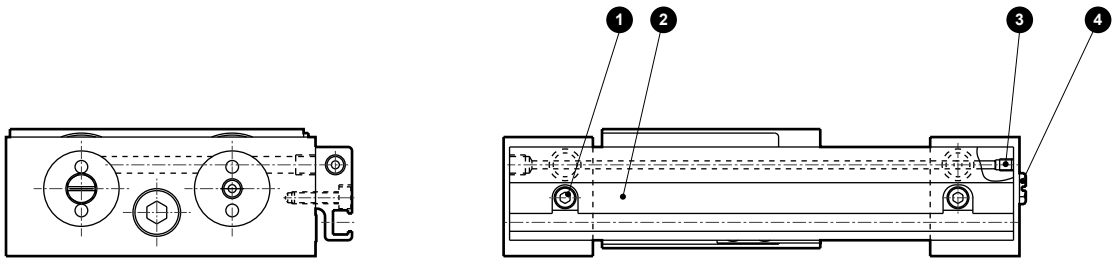
Internal structure and parts list MRL2-W (simplified guide 2-piston)

● MRL2-WL (with switch)



Cannot be disassembled

● MRL2-WL-*-R (common piping with switch)



Cannot be disassembled

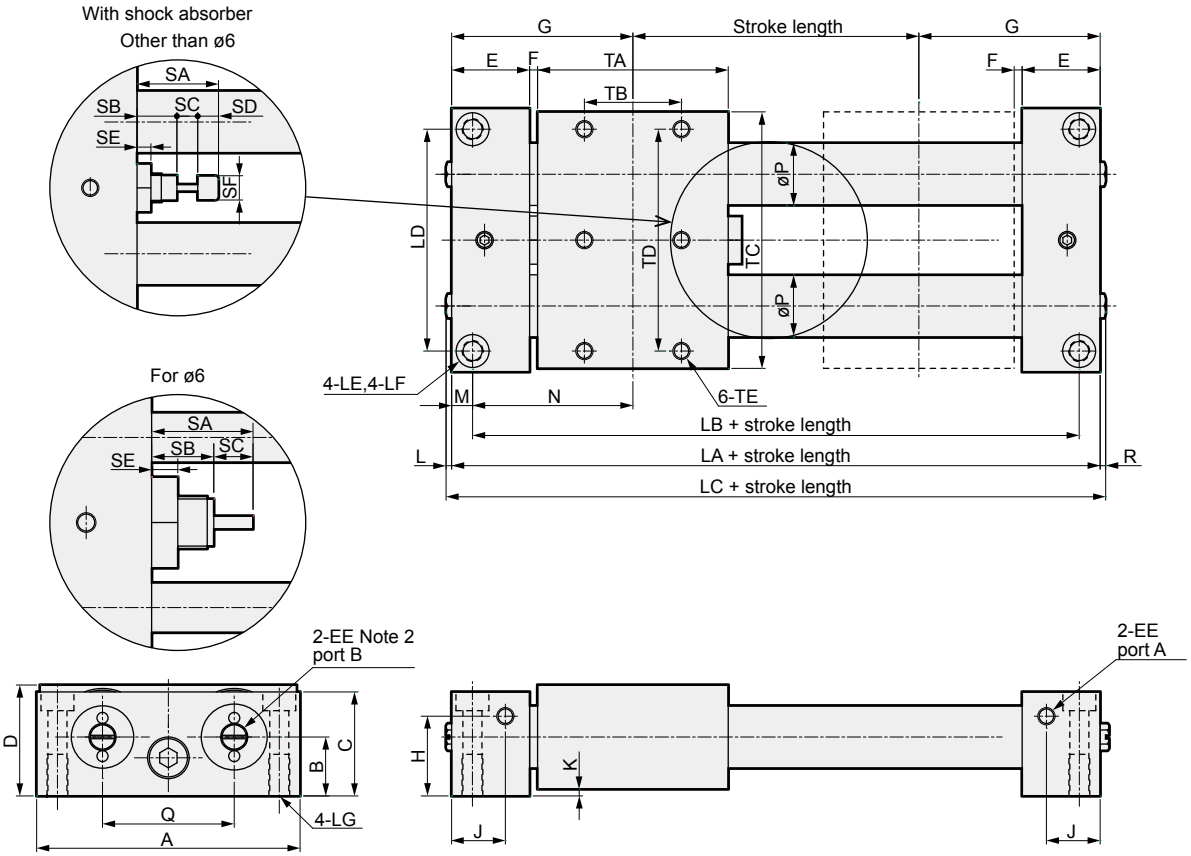
Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Hexagon socket head cap screw	Stainless steel		5	Magnet	Special alloy	
2	Switch rail	Aluminum alloy	Alumite	6	Magnet holder	Polyacetal resin	
3	Hexagon socket set screw	Stainless steel		7	Cross-recessed pan head machine screw	Stainless steel	
4	Plug	Copper alloy or steel		8	Shield plate	Steel	Nickeling

Dimensions: MRL2-G (simplified guide 1-piston)/MRL2-W (simplified guide 2-piston)

CAD

- MRL2-G (simplified guide 1-piston) without switch
- MRL2-W (simplified guide 2-piston) without switch



*1: It is possible to select Ⓐ and Ⓑ for air piping port.
The unit will be shipped with the plug assembled onto port Ⓑ.
· ø6 to ø20: Plug (FPL-M5)
· ø25, ø32: Hexagon socket head cap taper thread plug

*2: MRL2-W is "4-EE".

Code	Dimensions							Mounting dimensions							
Bore size (mm)	LA	LC	L	R	A	C	D	LB	LD	LE	LF	LG	TB	TD	TE
ø6	74	80.2	3.1	3.1	46	20	24	68	40	ø3.5	-	M4 depth 6	20	38	M3 depth 4.5
ø10	83	87.2	1.6	2.6	64	24	26	74	54	ø4.5	ø8 spot face depth 4.4	M5 depth 10	20	55	M4 depth 6
ø16	105	109.2	1.6	2.6	76	30	32	93	64	ø5.5	ø9.5 spot face depth 5.4	M6 depth 12	28	64	M5 depth 8
ø20	131	135.2	1.6	2.6	90	36	38	119	77	ø6.9	ø11 spot face depth 6.5	M8 depth 12	44	78	M5 depth 8
ø25	136	138	0	2	108	45	48	122	90	ø6.9	ø11 spot face depth 6.5	M8 depth 12	40	90	M6 depth 9
ø32	144	146	0	2	126	53	56	130	108	ø6.9	ø11 spot face depth 6.5	M8 depth 12	40	104	M6 depth 9

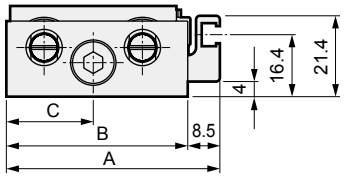
Code	General dimensions																			
Bore size (mm)	B	E	EE	F	G	H	J	K	M	N	P	Q	SA	SB	SC	SD	SE	SF	TA	TC
ø6	13	15	M5 depth 4	2	37	9	9.5	2	3	34	7.6	26	15.5	9.5	6	-	4	-	40	44
ø10	14	19.5	M5 depth 4	2	41.5	5.5	11.5	2	4.5	37	12	34	20.5	9.5	5	6	4	6	40	62
ø16	17	22.5	M5 depth 4	2.5	52.5	23	15.5	2	6	46.5	18	38	23.5	11.5	6	6	4	7	55	74
ø20	20	25.5	M5 depth 4	3	65.5	28	17	2	6	59.5	23	46	25.5	10.5	8	7	4	8	74	88
ø25	25.5	30	Rc1/8	3	68	29	20	3	7	61	28	50	30	12.5	10	7.5	5	10	70	101
ø32	29.5	30	Rc1/8	3	72	37	20	3	7	65	35	60	30	12.5	10	7.5	5	10	78	119

Dimensions: MRL2-G (simplified guide 1-piston)/MRL2-W (simplified guide 2-piston)

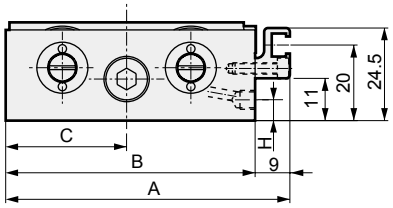
- MRL2-GL (simplified guide 1-piston) with switch
- MRL2-WL (simplified guide 2-piston) with switch

CAD

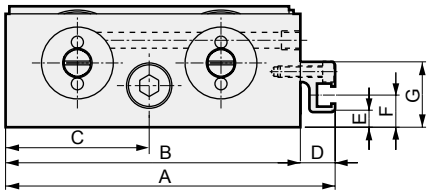
- For ø6

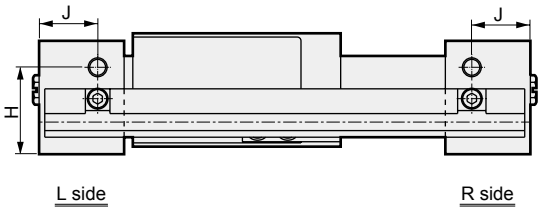


- For ø10



- For ø16 to ø32

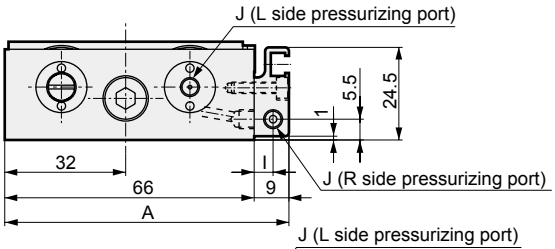




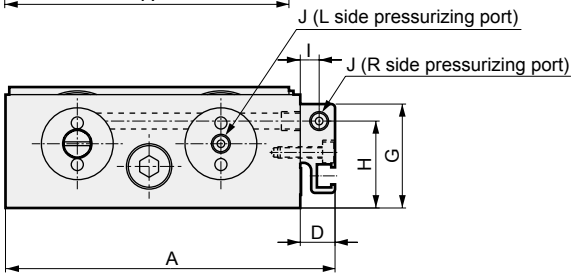
Code / Bore size (mm)	A	B	C	D	E	F	G	H	J
ø6	56.5	48	23	-	-	-	-	9	9.5
ø10	75	66	32	-	-	-	-	5.5	11.5
ø16	87	78	38	9	4	8.5	17.3	23	15.5
ø20	101	92	45	9	9	13.5	22.3	28	17
ø25	116.7	108	54	8.7	2	7.5	21	29	20
ø32	134.7	126	63	8.7	10	15.5	29	37	20

- MRL2-GL-*-R (simplified guide 1-piston) common piping with switch
- MRL2-WL-*-R (simplified guide 2-piston) common piping with switch

- For ø10



- For ø16 to ø32

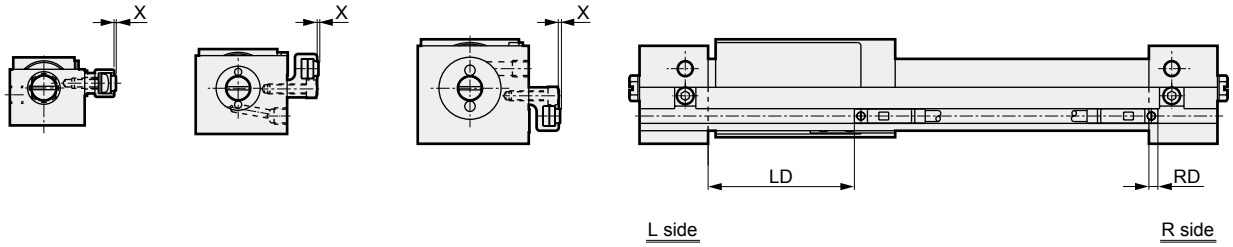


Code / Bore size (mm)	A	D	G	H	I	J
ø10	75	-	-	-	5	M5 depth 4
ø16	87	9	27.5	23	5	M5 depth 4
ø20	101	9	32.5	28	5	M5 depth 4
ø25	122	14	45	29	7.5	Rc1/8
ø32	140	14	53	37	7.5	Rc1/8

Switch mounting position dimensions

● MRL2-L-* (switch: T2^{H}/v, T3^{H}/v, T2W^{H}/v, T3W^{H}/v)
GL
WL

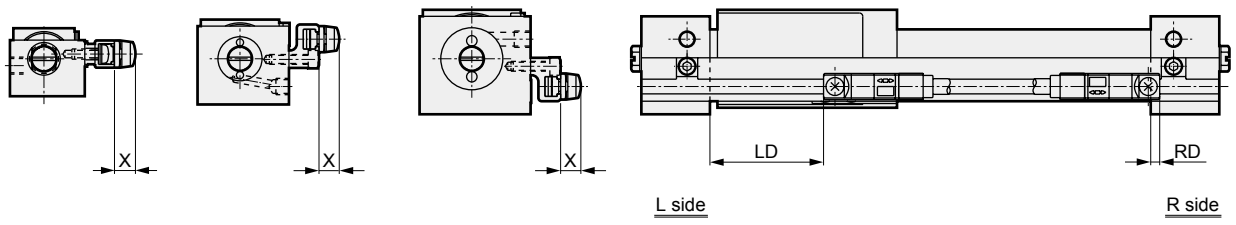
● For ø6 ● For ø10 ● For ø16 to ø32



Code	T2 ^{H}/v, T3 ^{H}/v			T2W ^{H}/v, T3W ^{H}/v		
Bore size (mm)	RD	LD	X	RD	HD	X
ø6	3.5	27	0.5	1.5	29	0.5
ø10	2.5	27	0.5	0.5	29	0.5
ø16	2.5	44	0.5	0.5	46	0.5
ø20	1	63.5	0.5	-1	65.5	0.5
ø25	2	58	0.5	0	60	0.5
ø32	1.5	67.5	0.5	-0.5	69	0.5

● MRL2-L-* (switch: T1^{H}/v, T2Y^{H}/v, T3Y^{H}/v)
GL
WL

● For ø6 ● For ø10 ● For ø16 to ø32



Code	RD	LD	X
Bore size (mm)			
ø6	4.5	26	6(11.5)
ø10	3.5	26	6(11.5)
ø16	3.5	43	6(11.5)
ø20	2	62.5	6(11.5)
ø25	3	57	6(11.5)
ø32	2.5	66	6(11.5)

*1: Values in ( ) are for T1^{H}/v.