

SCP03
CMK2
SCM
SSD2
MDC2
MSD
MSDG-L
SMG
LCR
LCG
STM
STG
STR2
SCP03
CMK2
SCM
SCG
SSD2
SMG
LCR
STG
STS
STL
LSH
LSHL
LSHM
LST
LSTM
HMC
CKW
ABP2
SCP03
CMK2
SCM
SSD2
MSD
MSDG-L
SMG
STG
STM
LCR
LCG
STR2
LSH
LSHL
SCP03
CMK2
SCM
SCG
SSD2
STG

Long service life cylinder

Environment-resistant cylinder

Linear Slide Hand

Low-profile long stroke hand

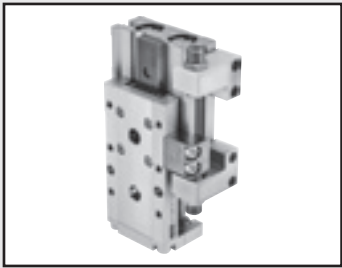
Wide-Parallel Hand

Chuck

Air Booster

Compatible with rechargeable batteries

Supports food mfg. processes



Linear slide cylinder
Double acting/Single rod/Rubber scraper

Environment-resistant cylinder

LCR-G-HP1 Series

● Bore size: $\varnothing 6/\varnothing 8/\varnothing 12/\varnothing 16/\varnothing 20/\varnothing 25$



Specifications

Item		LCR-G-HP1					
Bore size mm		ø6	ø8	ø12	ø16	ø20	ø25
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure MPa		0.7					
Min. working pressure MPa		0.15 (*1)					
Proof pressure MPa		1.05					
Ambient temperature °C		-10 to 60 (no freezing)					
Port size	Main body side	M3	M5			Rc1/8	
	Main body back	-	M3			M5	Rc1/8
Stroke tolerance mm		+2.0 0 (*2)					
Working piston speedmm/s		50 to 500 (*3)					
Cushion		With rubber cushion					
Lubrication		Not required					

*1: 0.2 MPa when using the $\varnothing 6$ shock absorber stopper.

*2: Note that there will be a slight gap between the end plate and floating bush if no stopper is attached.

*3: Use the stroke adjusting stopper at 50 to 200 mm/s.

*4: The stroke adjusting stopper for 0.3 MPa and over working pressure is the metal sealing type.

Stroke

Bore size (mm)	Standard stroke (mm)
$\varnothing 6$	10, 20, 30, 40, 50
$\varnothing 8$	10, 20, 30, 40, 50, 75
$\varnothing 12$	10, 20, 30, 40, 50, 75, 100
$\varnothing 16$	10, 20, 30, 40, 50, 75, 100, 125
$\varnothing 20$	10, 20, 30, 40, 50, 75, 100, 125, 150
$\varnothing 25$	10, 20, 30, 40, 50, 75, 100, 125, 150

Note: Products with strokes other than the above are not available.

Allowable absorbed energy (Eo)

Bore size	Standard (J)	With stroke adjusting stopper (J)	With shock absorber stopper (J)
$\varnothing 6$	0.025	0.0032	0.14
$\varnothing 8$	0.058	0.0032	0.25
$\varnothing 12$	0.112	0.014	0.25
$\varnothing 16$	0.176	0.043	0.65
$\varnothing 20$	0.314	0.055	1.3
$\varnothing 25$	0.314	0.14	1.3

How to order

Without switch(built-in magnet for switch)

LCR-G - 8 - 40 - S506 DTN - HP1

With switch(built-in magnet for switch)

LCR-G - 12 - 40 - F2H* - R - S506 DTN - HP1

Model No.

A Tube
Bore size

B Stroke

D Switch quantity

F Option

C Switch model No.

⚠ Precautions for model No. selection

*1: For the adjustable stroke range with a shock absorber stopper, refer to the stopper dimensions table on page 94.

*2: For the port position, refer to the stopper dimensions on page 94.

*3: The port position of the standard without stopper is ① and ③ position.

4: Refer to stoppers "C" and "W*" for combination of the stroke adjusting stopper and shock absorber type stopper.

*5: Can be selected for the type with stopper only.

*6: Refer to the selection table on page 78 for combinations of options.

*7: A1**, A2**, A5** and A6** of ø6 to ø8-10st, ø12 to ø25-20st or less cannot be adjusted with the standard stopper, so they are made to order.

*8: Select the F/H type switch when using the type with two switches with S*** or A*** for ø6 to ø8-30st or less.

*9: Select when using rear piping.

*10: Can be selected only when using stroke adjusting stopper (S) and one side mixed type (C).

*11: When using the W3 to 6 (two-sided combined stopper) with ø6 (full st) ø 8-20st to 30st, ø12-30st to 50st and ø16-30st to 50st, use a lead wire straight type when using the type with two switches or the head side.

*12: Cannot be selected when choosing two-sided combined type (W).

*13: The adjustable stroke range when choosing two-sided combined type (W) is ø6:9 mm, ø8:13.5 mm, ø12:14.5 mm, ø16:15 mm, ø20:13 mm, ø25:10 mm

*14: The stroke adjusting stopper for 0.3MPa and over working pressure is the metal sealing type.

*15: The shock absorber specs. is not dust-proof.

[Example of model No.]

LCR-G-12-40-F2H-R-A1DT-HP1

Model: Linear slide cylinder Double acting/Single rod LCR

A Bore size : ø12

B Stroke : 40mm

C Switch model No. : Proximity/2-wire
Axial lead wire

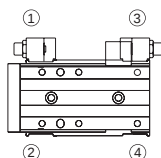
D Switch quantity : 1 on rod side

E Stopper : Shock absorber stopper
Stopper position ①

F Option : With side and bottom ports
Material, steel (nitriding)

E Stopper

● Stopper position



Code	Description
A Bore size (mm)	
6	ø6
8	ø8
12	ø12
16	ø16
20	ø20
25	ø25

B Stroke (mm)		Bore size (ø)					
		6	8	12	16	20	25
10	10	●	●	●	●	●	●
20	20	●	●	●	●	●	●
30	30	●	●	●	●	●	●
40	40	●	●	●	●	●	●
50	50	●	●	●	●	●	●
75	75		●	●	●	●	●
100	100			●	●	●	●
125	125				●	●	●
150	150					●	●

C Switch model No.												
Straight lead wire	L-shaped lead wire	Contact	Voltage		Indicator lamp	Lead wire	Bore size					
			AC	DC			ø6	ø8	ø12	ø16	ø20	ø25
-	F2S*	Proximity		●	1-color LED	2-wire						
-	F3S*			●		3-wire						
F2H*	F2V*			●		2-wire						
F3H*	F3V*			●		3-wire	●	●	●			
F3PH*	F3PV*	Reed		●	1-color LED (PNP output) (Made to order)	3-wire						
F2YH*	F2YV*			●	2-color	2-wire						
F3YH*	F3YV*			●	LED	3-wire						
T0H*	T0V*			●	●	1-color LED	2-wire					
T5H*	T5V*	Proximity		●	No LED							
T2H*	T2V*			●	1-color	2-wire						
T3H*	T3V*			●	LED	3-wire						
T2HR3	T2VR3			●	1-color LED Bending resistant lead wire	2-wire				●	●	●
T3PH*	T3PV*	Proximity		●	1-color LED (PNP output) (Made to order)	3-wire						
T2WH*	T2WV*			●	2-color	2-wire						
T3WH*	T3WV*			●	LED	3-wire						

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

D Switch quantity	
R	1 on rod side
H	1 on head side
D	2

E Stopper	
Page 76 for details on the [Stopper].	

F Option	
Blank	Port on stopper: without port
D	Port on stopper: side and bottom ports *2, *5, *12
Blank	Stopper block material: Steel
T	Stopper block material: steel (nitriding) *5

Plug included	
Blank	No
N	With side piping port plug (not available for ø6, ø25) *9

Long service life cylinder

Environment-resistant cylinder

Linear Slide Hand

Low-profile long stroke hand

Wide Parallel Hand

Chuck

Air Booster

Compatible with rechargeable batteries

Supports food mfg. processes

SCPD3

CMK2

SCM

SSD2

STG

LCR-G-HP1 Series

[E Stopper]

Code	Description	Code	Description
E Stopper		C One side hybrid stopper mix (shock absorber stopper, stroke adjusting stopper)	
Blank	No option	C1**	A1+S3
S Stroke adjusting stopper	*4, *7	C2**	A2+S4
S1**	Stopper position① (Can be changed to ④)	C3**	A3+S1
S2**	Stopper position② (Can be changed to ③)	C4**	A4+S2
S3**	Stopper position③ (Can be changed to ②) *16	** part Adjustable stroke range ● Compatible with all. ▲ Compatible with some. *11	
S4**	Stopper position④ (Can be changed to ①) *16		
S5**	Stopper position①, ③		
S6**	Stopper position②, ④		
A Shock absorber stopper	*1, *4, *7		
A1	Stopper position① (Can be changed to ④)		
A2	Stopper position② (Can be changed to ③)		
A3	Stopper position③ (Can be changed to ②) *16		
A4	Stopper position④ (Can be changed to ①) *16		
A5	Stopper position①, ③		
A6	Stopper position②, ④		
W Two-sided combined double stopper(Shock absorber stopper, metal stopper)	*12, *14		
W1	A1 + metal stopper		
W2	A2 + metal stopper		
W3	A3 + metal stopper		
W4	A4 + metal stopper		
W5	A5 + metal stopper		
W6	A6 + metal stopper		

*16:When changing the stopper position from the head side to the rod side, the stopper must be purchased separately according to the stroke and adjustable stroke. Refer to "Precautions when purchasing discrete stopper" on page 80. A1, A2 and adjustable stroke of 15mm and 25mm may not be available depending on the stroke.

Stopper model No. selection method

1 Stopper combination table

Model No.-[① Stopper type] [② Stopper position][③] Example) LCR-G-8-40-[S] [5]06-HP1

		Adjustable stroke (one side)	Shock absorber(One side)	Two-sided combined double stopper	One side hybrid stopper mix
		Stopper model No. [①]			
		[S]	[A]	[W]	[C]
Stopper position model No. [②]	[1]	[S1]	[A1]	[W1]	[C1]
	[2]	[S2]	[A2]	[W2]	[C2]
	[3]	[S3]	[A3]	[W3]	[C3]
	[4]	[S4]	[A4]	[W4]	[C4]
	[5]	[S5]	[A5]	[W5]	/
	[6]	[S6]	[A6]	[W6]	

▲shows the piping direction. When choosing two-sided combined type (W), the stopper bracket comes with piping on both sides. ▲The stopper bracket on the reverse side of (piping direction) is provided with a plug.

■: Shock absorber stopper
 ■: Stroke adjusting stopper (adjusting range 5 mm)
 ■: Metal adjusting stopper (adjusting range 15 mm)

Stopper model No. selection method

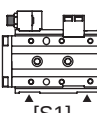
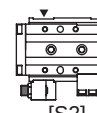
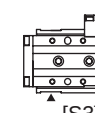
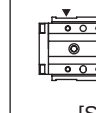
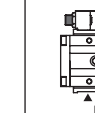
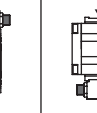
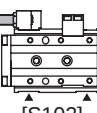
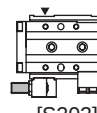
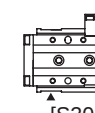
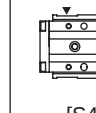
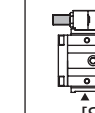
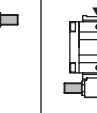
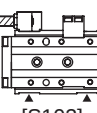
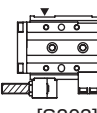
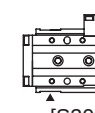
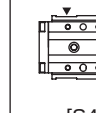
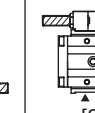
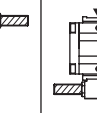
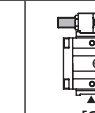
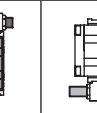
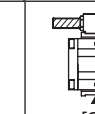
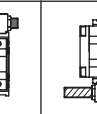
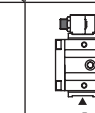
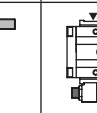
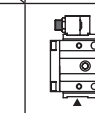
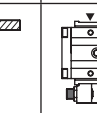
2 Stopper combination table

Model No. -[① ②Stopper type][③Adjustable stroke range]

(Example) LCR-G-8-40-S5[06]-HP1

For stroke adjusting stopper -S

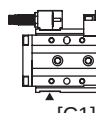
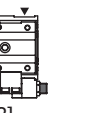
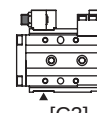
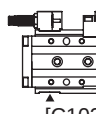
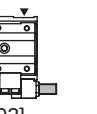
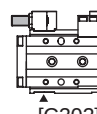
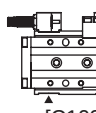
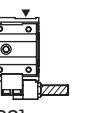
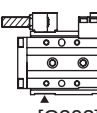
■: Stroke adjusting stopper (adjusting range 5 mm)
 ■: Stroke adjusting stopper (adjusting range 15 mm)
 ▨: Stroke adjusting stopper (adjusting range 25 mm)

		Stopper adjusting range		Stopper model No. [①②]					
		Protruding end	Return end	[S1]	[S2]	[S3]	[S4]	[S5]	[S6]
Adjustable stroke range model No. [③]	Blank	5 mm or None	5 mm or None	 [S1]	 [S2]	 [S3]	 [S4]	 [S5]	 [S6]
	[02]	15 mm or None	15 mm or None	 [S102]	 [S202]	 [S302]	 [S402]	 [S502]	 [S602]
	[03]	25 mm or None	25 mm or None	 [S103]	 [S203]	 [S303]	 [S403]	 [S503]	 [S603]
	[04]	15 mm	5 mm	Diagonal line				 [S504]	 [S604]
	[05]	25 mm	5 mm					 [S505]	 [S605]
	[06]	5 mm	15 mm					 [S506]	 [S606]
	[07]	5 mm	25 mm	Diagonal line				 [S507]	 [S607]

▲shows the piping direction. Shock absorber [A], Cannot be selected for two-sided combined type [W]N.

3 For one side hybrid stopper mix -C

■: Shock absorber stopper
 ■: Stroke adjusting stopper (adjusting range 5 mm)
 ■: Stroke adjusting stopper (adjusting range 15 mm)
 ▨: Stroke adjusting stopper (adjusting range 25 mm)

		Stopper adjusting range		Stopper model No. [①②]			
		Protruding end	Return end	[C1]	[C2]	[C3]	[C4]
Adjustable stroke range model No. [③]	Blank	5 mm or shock Absorber	5 mm or shock Absorber	 [C1]	 [C2]	 [C3]	 [C4]
	[02]	15 mm or shock Absorber	15 mm or shock Absorber	 [C102]	 [C202]	 [C302]	 [C402]
	[03]	25 mm or shock Absorber	25 mm or shock Absorber	 [C103]	 [C203]	 [C303]	 [C403]

▲shows the piping direction. For the adjustable stroke range with a shock absorber-type, refer to the stopper dimensions table on page 94.

SCP03	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCP03	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
STS	
STL	
LSH	Linear Slide Hand
LSHL	
LSHM	
LST	Low-profile long stroke hand
LSTM	
HMC	Wide Parallel Hand
CKW	Chuck
ABP2	Air Booster
SCP03	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	
SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCP03	Supports food mfg. processes
CMK2	
SCM	
SCG	
SSD2	
STG	

LCR-G-HP1 Series

Long service life cylinder	SCPD3
	CMK2
	SCM
	SSD2
	MDC2
	MSD
	MSDG-L
Environment-resistant cylinder	SMG
	LCR
	LCG
	STM
	STG
	STR2
	SCPD3
Linear Slide Hand	CMK2
	SCM
	SCG
	SSD2
	SMG
	LCR
	STG
Low-profile long stroke hand	STS
	STL
	LSH
	LSHL
	LSHM
Wide-Parallel Hand	LST
	LSTM
Chuck	HMC
	CKW
Air Booster	ABP2
Compatible with rechargeable batteries	SCPD3
	CMK2
	SCM
	SSD2
	MSD
	MSDG-L
	SMG
	STG
	STM
	LCR
	LCG
	STR2
	LSH
	LSHL
Supports food mfg. processes	SCPD3
	CMK2
	SCM
	SCG
	SSD2
	STG

LCR Double acting/Single rod selection table

(Combination with stroke adjusting stopper, shock absorber stopper)

●: Available - : Not available

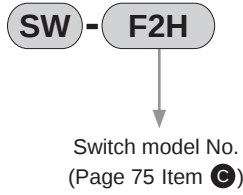
Model Model No.	Stopper type		Adjustable stroke																											
	Stopper code		S1			S2			S3			S4			S5							S6								
			Adjustment length code																											
	Bore size	Stroke	Blank	02	03	Blank	02	03	Blank	02	03	Blank	02	03	Blank	02	03	04	05	06	07	Blank	02	03	04	05	06	07		
LCR	ø6,ø8	10	●	-	-	●	-	-	●	●	-	●	●	-	●	-	-	-	-	●	-	●	-	-	-	-	●	-		
		20 or more	●	●	-	●	●	-	●	●	-	●	●	-	●	●	-	●	-	●	-	●	●	-	●	-	●	-		
	ø12 to ø25	10	●	-	-	●	-	-	●	●	-	●	●	-	●	-	-	-	-	●	-	●	-	-	-	-	●	-		
		20	●	●	-	●	●	-	●	●	●	●	●	●	●	●	-	●	-	●	●	●	●	-	●	-	●	●		
		30 or more	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		

Model Model No.	Stopper type		Shock absorber						Two-sided combined double stopper						One side hybrid stopper mix											
	Stopper code		A1	A2	A3	A4	A5	A6	W1	W2	W3	W4	W5	W6	C1			C2			C3			C4		
															Adjustment length code											
	Bore size	Stroke													Blank	02	03	Blank	02	03	Blank	02	03	Blank	02	03
LCR	ø6,ø8	10	-	-	●	●	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	●	-	-		
		20 or more	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-	●	●	-	●	●	-		
	ø12 to ø25	10	-	-	●	●	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	●	-	-		
		20	-	-	●	●	-	-	-	-	●	●	-	-	-	-	-	-	●	●	-	●	●	-		
		30 or more	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		

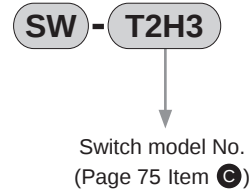
The table above also applies to a combination with option code D (with port on the stopper) or T (steel stopper block (nitriding)).

How to order switch

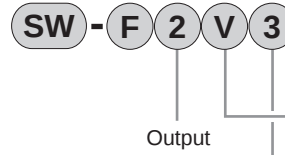
ø6 to ø12



For ø16 to ø25



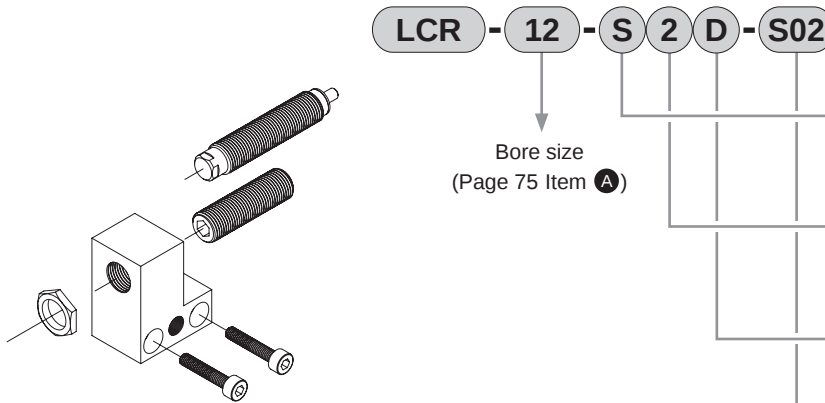
● For buffer



Output	
2	DC 2-wire proximity
3	DC 3-wire proximity
L-shaped lead wire	
Lead wire length	
Blank	1 m (standard)
3	3 m (option)

How to order a stopper set

- Set of a stopper and stroke adjusting stopper or shock absorber stopper
- Use it when changing from the standard to the stroke adjusting stopper or shock absorber stopper.



A Stopper type	
S	Stroke adjusting stopper
A	Shock absorber stopper
B Stopper installation position *1	
1	For ① or ④ stopper position
2	For ② or ③ stopper position
C Port on the stopper	
Blank	Without port
D	With side and bottom ports
D Adjustable stroke *2, *3	
Blank	Adjustable stroke range 5 mm
S02	Adjustable stroke range 15 mm
S03	Adjustable stroke range 25 mm

- *1: When installing in the stopper mounting position ① or ② (refer to page 27), the stroke causes changes in the adjustable stroke; see the following table.
- *2: ø6 and ø8 are not available for S03.
- *3: Cannot be selected for the shock absorber stopper "A".
- *4: The shock absorber specs. is not dust-proof.

Note) Bottom port is plug-sealed. ø 20, When using the bottom port with 25, buy a plug kit (LCR-20-N 2 pieces/set) and seal the side surface ports before use.

Precautions when purchasing the stopper set

When the stopper set is installed in the mounting position ① or ② (refer to page 75), note that the adjustable stroke will be as shown on the right according to the stroke.

Model No. code	Option code		Discrete stroke adjusting stopper		
			Adjustable stroke (mm)		
	Bore size	Stroke	-5	-15	-25
LCR Series	ø6, ø8	10	S02	-	-
		20 or more	Blank	S02	-
	ø12 to ø25	10	S03	-	-
		20	S02	S03	-
		30 or more	Blank	S02	S03

● Stopper set weight

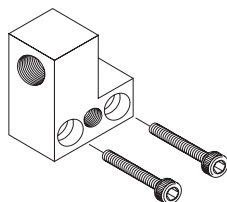
(Unit : g)

Stopper type	S1,S2		
Port on the stopper	Blank, D		
Adjustable stroke	Blank	S02	S03
ø6	15	18	-
ø8	21	25	-
ø12	28	31	34
ø16	42	47	52
ø20	77	85	92
ø25	87	94	101

SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCPD3	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
STS	Linear Slide Hand
STL	
LSH	
LSHL	
LSHM	
LST	Low-profile long stroke hand
LSTM	
HMC	Wide Parallel Hand
CKW	Chuck
ABP2	Air Booster
SCPD3	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	
SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCPD3	Supports food mfg. processes
CMK2	
SCM	
SCG	
SSD2	
STG	

How to order discrete stopper bracket

- ☐1(☐3) ↔ ☐2(☐4) On change, Use when changing to the stopper with port.
- ☐: SA



LCR - 12 - STB 1 D

Bore size
(Page 75 Item A)

A Stopper installation position

1	For stopper position ^b or ^d
2	For stopper position ^c or ^e

B Port on the stopper

Blank	Without port
D	With side and bottom ports

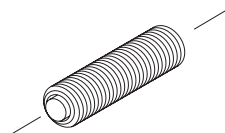
Note) Bottom port is plug-sealed. When using the bottom port with ø20 and ø25, purchase a plug kit (LCR-20-N 2 pieces/set) and seal the side surface ports before use.

- Stopper bracket weight (Unit : g)

Stopper installation position	1, 2
Port on the stopper	Blank, D
ø6	8
ø8	14
ø12	20
ø16	29
ø20	53
ø25	62

How to order discrete stroke adjusting stopper

- Hexagon socket set screw with urethane
- Use when changing the adjustable stroke range or when using a custom stroke.



LCR - 12 - S02

Bore size
(Page 75 Item A)

A Adjustable stroke range

S01	Single side 5 mm (standard)
S02	Single side 15 mm
S03	Single side 25 mm

Specify S01, S02 or S03 in A.

Note: S03 is not available for ø6, ø8. Some models may not be available and adjustable stroke range may differ from the above depending on the Model No.

Precautions when purchasing discrete stopper

When a discrete stroke adjusting stopper or a discrete shock absorber stopper is installed in the ① or ② position (refer to page 75), the combination will be as shown on the right according to the stroke and adjustable stroke.

Model No. code	Option code		Discrete stroke adjusting stopper			Discrete shock absorber stopper
			Adjustable stroke (mm)			
	Bore size	Stroke	-5	-15	-25	
LCR Series -S1, S2, S5, S6 -A1, A2, A5, A6	ø6, ø8	10	S02	-	-	-
		20 or more	S01	S02	-	A01
	ø12 and up ø25	10	S03	-	-	-
		20	S02	S03	-	-
		30 or more	S01	S02	S03	A01

- : Not available

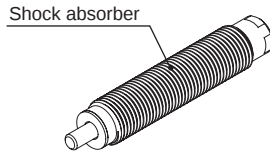
- Discrete stroke adjusting stopper weight

(Unit : g)

Adjustable stroke range	S01	S02	S03
ø6	6	9	-
ø8	7	10	-
ø12	7	11	14
ø16	11	16	22
ø20	22	30	37
ø25	23	30	37

How to order discrete shock absorber stopper

- Shock absorber set
- Use when changing from the stroke adjusting stopper to the shock absorber stopper



LCR - 12 - A01

Bore size
(Page 75 Item A)

Note: Some models may not be available depending on the specifications. Refer to page 75. For the shock absorber type stopper adjustable stroke range, refer to page 94.

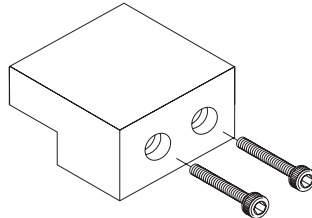
Note: The shock absorber specs. is not dust-proof.

Applicable shock absorber model No.

Model	Shock absorber model No.	Weight (g)
LCR-6	SKL-0804	9
LCR-8	SKL-0805	12
LCR-12	SKL-0805	12
LCR-16	SKL-1006	19
LCR-20	SKL-1208	31
LCR-25	SKL-1208	31

How to order discrete stopper block

- Use it when changing from the standard to the stroke adjusting stopper or shock absorber stopper.



LCR - 12 - SB1 T

Bore size
(Page 75 Item A)

A Stopper block	
SBL	For ø6:30 Stroke or less For ① or ③ stopper position
SBR	For ø6:30 Stroke or less For ② or ④ stopper position
SB1	ø8: For 30 Stroke or less ø12 to ø25: For 50 Stroke or less
SB2	ø6/ø8: For 40 Stroke or more ø12 to ø25: For 75 Stroke or more
B Material	
Blank	Stopper block material: Steel
T	Stopper block material: steel (nitriding)

- Discrete stopper block weight

(Unit : g)

Block	SBL/SBR/SB1(T)	SB2(T)
ø6	14	21
ø8	14	24
ø12	23	37
ø16	38	72
ø20	60	99
ø25	112	206

Model No. of plug kit for side piping port

LCR - 12 - N (2/set)

Bore size
(Page 75 Item A)

- Weight of plug kit for side piping port

Bore size	Weight (g)
ø8	1
ø12	1
ø16	1
ø20	5

LCR repair parts list

Bore size (mm)	Kit No.	Part name
ø6	LCR-G-6K-HP1	Scraper
ø8	LCR-G-8K-HP1	Lube keeping structure
ø12	LCR-G-12K-HP1	Metal gasket
ø16	LCR-G-16K-HP1	Rod packing
ø20	LCR-G-20K-HP1	Cushion rubber (R)
ø25	LCR-G-25K-HP1	Piston packing
		Cover gasket
		Cushion rubber (H)

SCP D3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCP D3	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
STS	
STL	
LSH	Linear Slide Hand
LSHL	
LSHM	
LST	Low-profile long stroke hand
LSTM	
HMC	Wide Parallel Hand
CKW	Chuck
ABP2	Air Booster
SCP D3	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	
SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCP D3	Supports food mfg. processes
CMK2	
SCM	
SCG	
SSD2	
STG	

LCR-G-HP1 Series

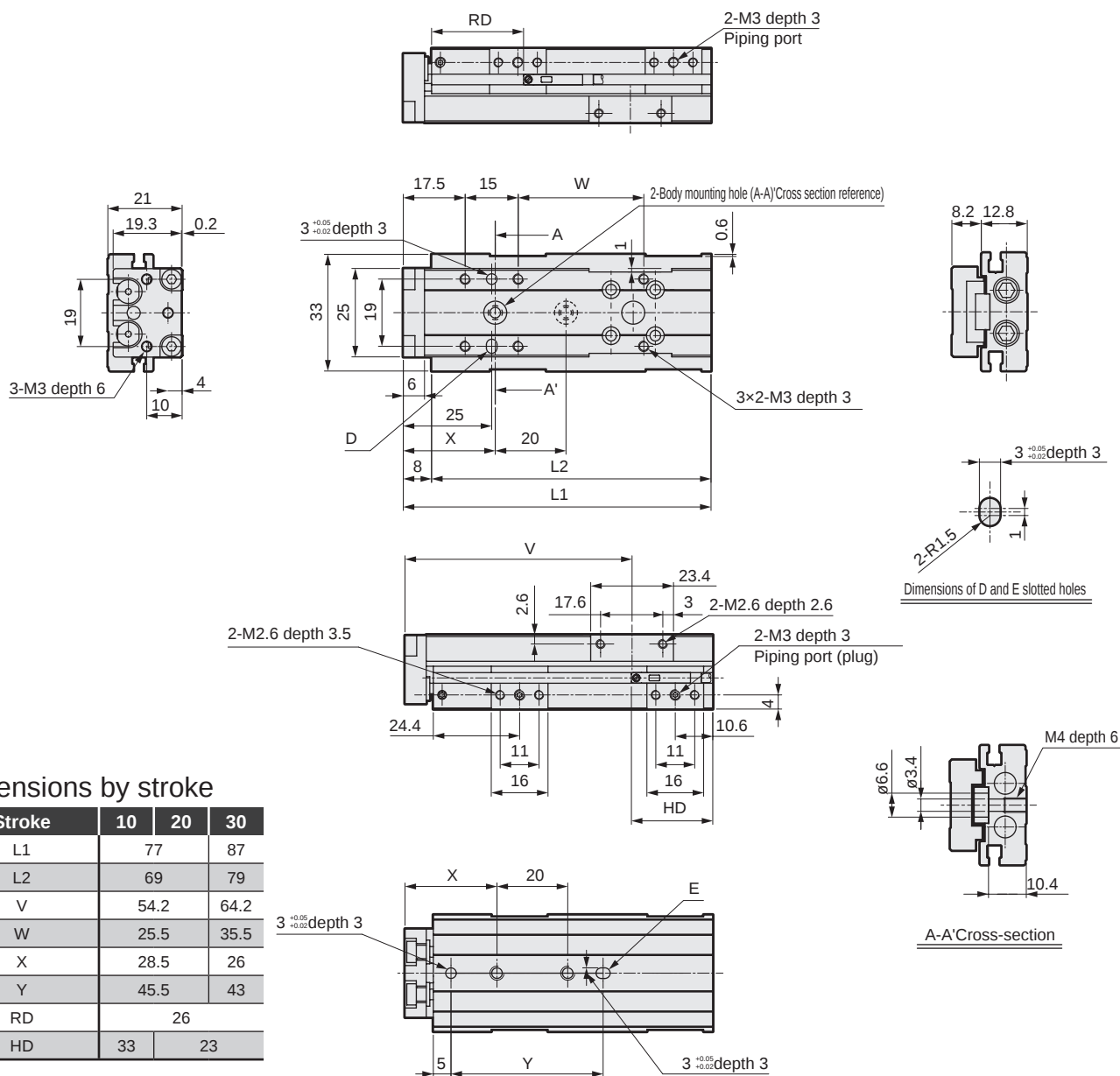


Dimensions (bore size: $\phi 6$)

● LCR-G-6-HP1

Stroke: 10, 20, 30

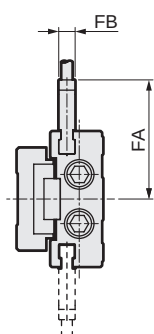
(Body mounting hole in the figure shows 30 mm stroke)



Dimensions by stroke

Stroke	10	20	30
L1	77	87	
L2	69	79	
V	54.2	64.2	
W	25.5	35.5	
X	28.5	26	
Y	45.5	43	
RD	26		
HD	33	23	

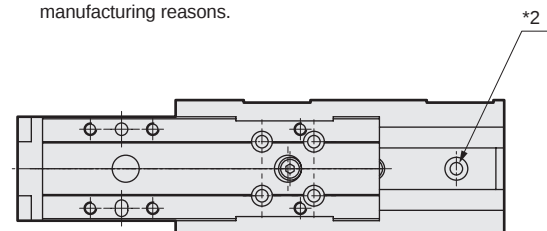
● Dimensions of protruding section when the F2S or F3S cylinder switch is mounted



Stroke	10	20	30
FA	29.1		
FB	4		
RD	25		
HD	34	24	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of the pin is JIS tolerance m6 or less.

*2: For 30 mm stroke, one hole is available which is not used for linear guide due to manufacturing reasons.



Dimensions (bore size: ø6)



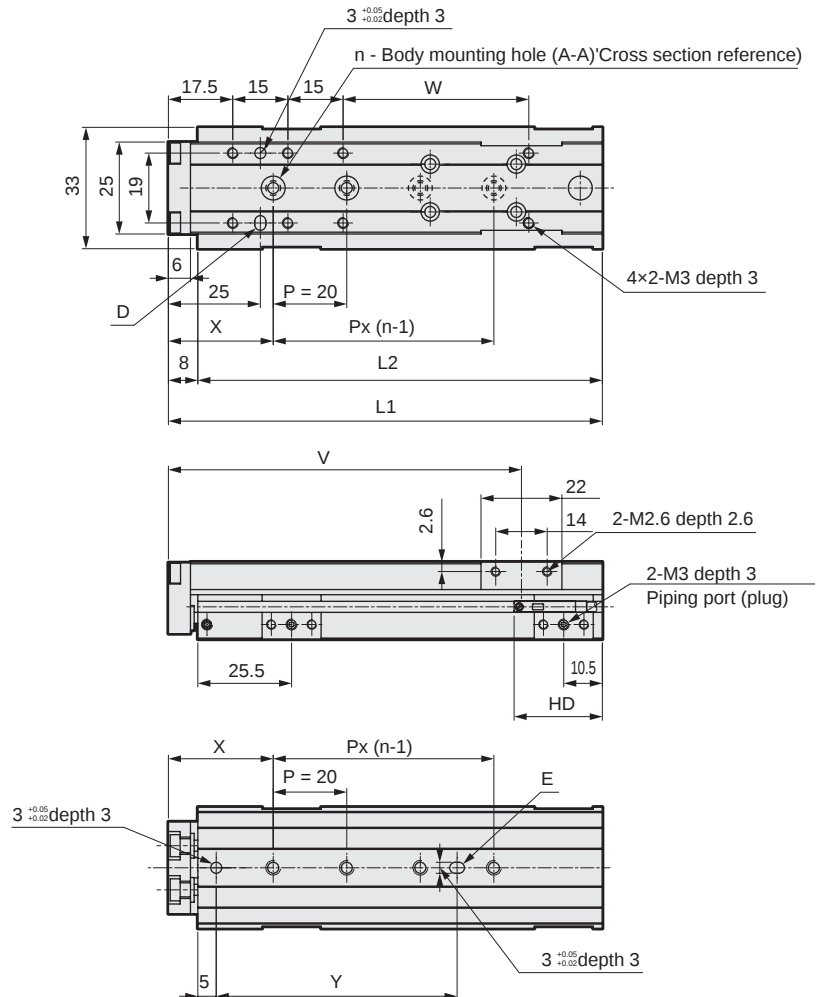
● LCR-G-6-HP1

Stroke: 40, 50

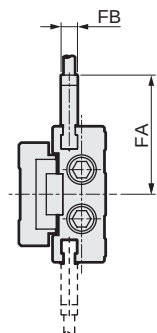
(Body mounting hole in the figure shows 50 mm stroke)

Dimensions by stroke

Stroke	40	50
L1	108	118
L2	100	110
n	3	4
V	86	96
W	40.5	50.5
X	27	28.5
Y	44	65.5
RD	26	
HD	24	



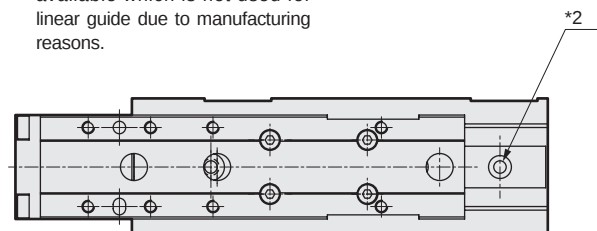
● Dimensions of protruding section when the F2S or F3S cylinder switch is mounted



Stroke	40	50
FA	29.1	
FB	4	
RD	25	
HD	25	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of the pin is JIS tolerance m6 or less.

*2: For 40 mm stroke, one hole is available which is not used for linear guide due to manufacturing reasons.

[illegible]

LCR-G-HP1 Series

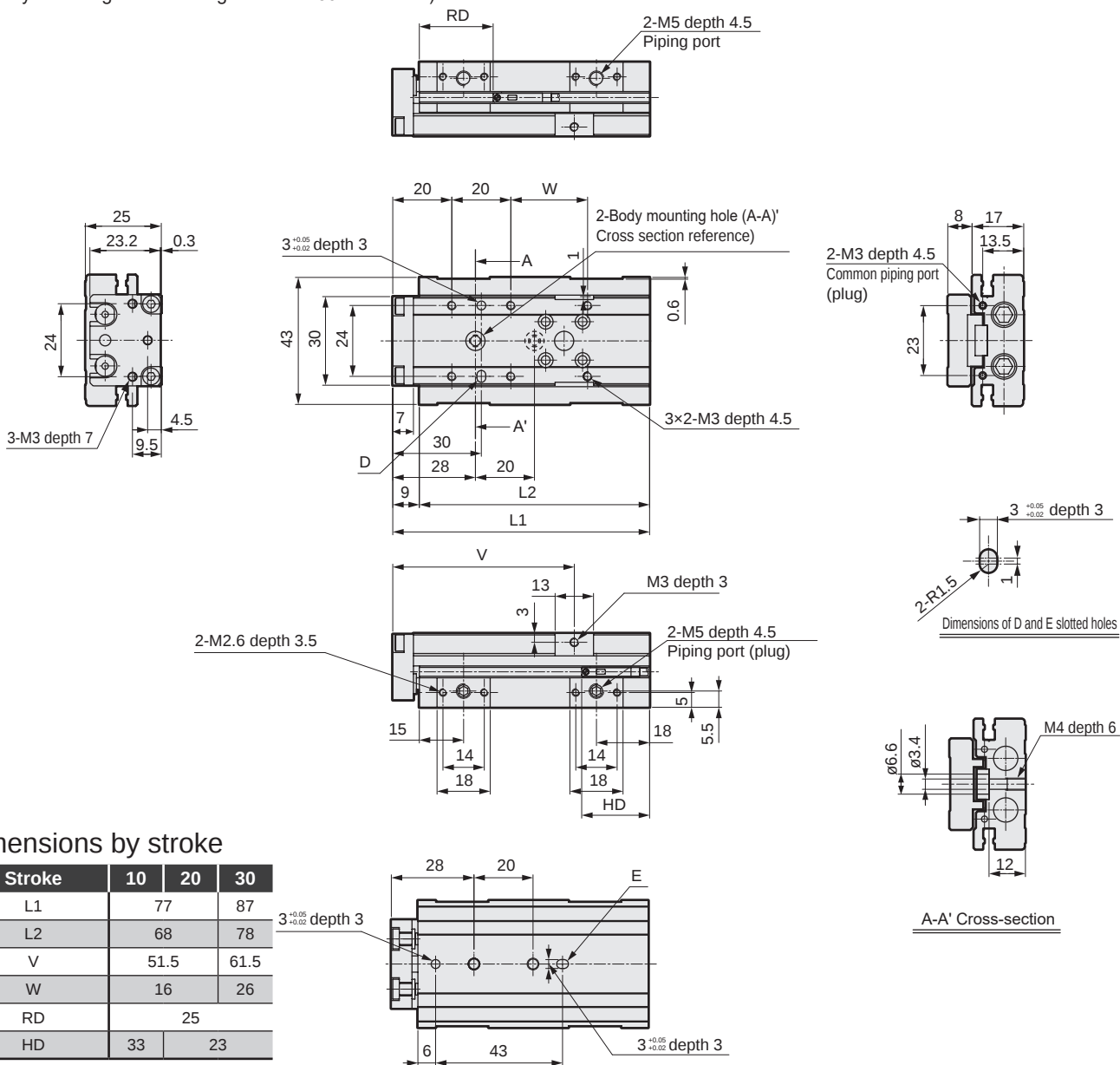


Dimensions (bore size: $\varnothing 8$)

● LCR-G-8-HP1

Stroke: 10, 20, 30

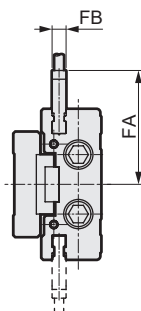
(Body mounting hole in the figure shows 30 mm stroke)



Dimensions by stroke

Stroke	10	20	30
L1	77	87	
L2	68	78	
V	51.5	61.5	
W	16	26	
RD	25		
HD	33	23	

● Dimensions of protruding section when the F2S or F3S cylinder switch is mounted

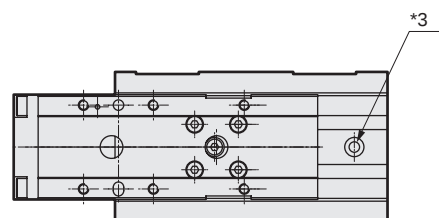


Stroke	10	20	30
FA	32.6		
FB	4		
RD	24		
HD	34	24	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of 1. Common; Piping in Pneumatic Cylinders II (No. CB-030SA).

*3: For 30 mm stroke, one hole is available which is not used for linear guide due to manufacturing reasons.



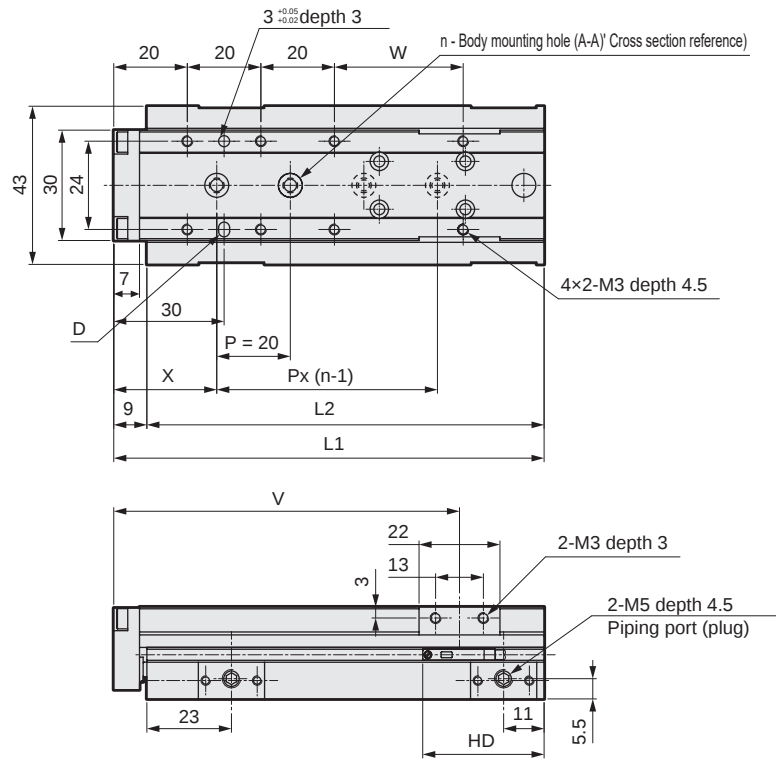
Dimensions (bore size: ø8)



● LCR-G-8-HP1

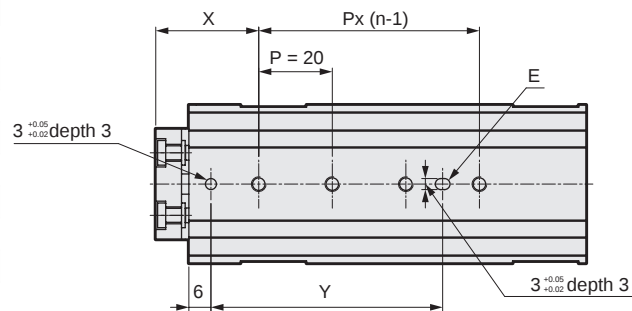
Stroke: 40, 50, 75

(Body mounting hole in the figure shows 50 mm stroke)

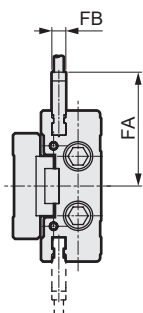


Dimensions by stroke

Stroke	40	50	75
L1	107	117	142
L2	98	108	133
n	3	4	5
V	84	94	119
W	25	35	60
X	26.5	28	25
Y	41.5	63	80
RD	25		
HD	33		



● Dimensions of protruding section when the F2S or F3S cylinder switch is mounted

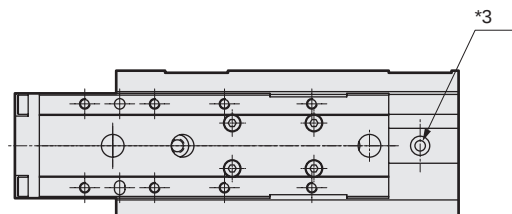


Stroke	40	50	75
FA	32.6		
FB	4		
RD	24		
HD	34		

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of **1. Common; Piping** in **Pneumatic Cylinders II (No. CB-030SA)**.

*3: 40 and 75 mm stroke have one hole opened for manufacturing reasons not to use for linear guide.



LCR-G-HP1 Series

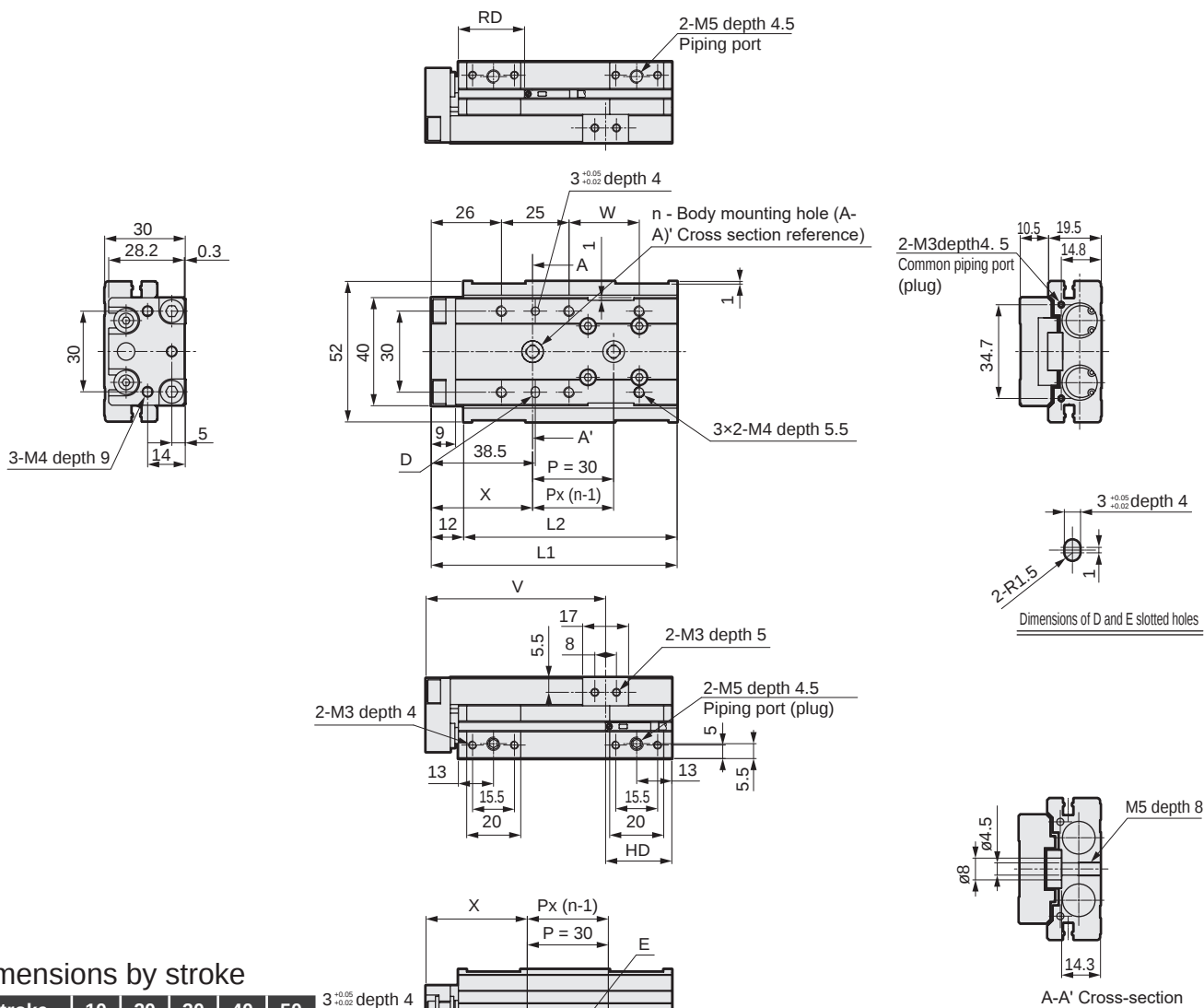


Dimensions (bore size: $\phi 12$)

● LCR-G-12-HP1

Stroke: 10, 20, 30, 40, 50

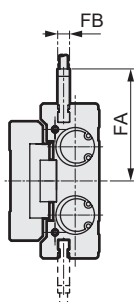
(Body mounting hole in the figure shows 30 mm stroke)



Dimensions by stroke

Stroke	10	20	30	40	50
L1		91		101	111
L2		79		89	99
n		2		3	
V		66.5		76.5	86.5
W		26		36	46
X		37.5		36	32
Y		32.5		31	57
RD		24.5			
HD	44.5	34.5		24.5	

● Dimensions of protruding section when the F2S or F3S cylinder switch is mounted



Stroke	10	20	30	40	50
FA			37.8		
FB			4		
RD			23.5		
HD	45.5	35.5		25.5	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of **1. Common; Piping** in Pneumatic Cylinders II (No. CB-030SA).

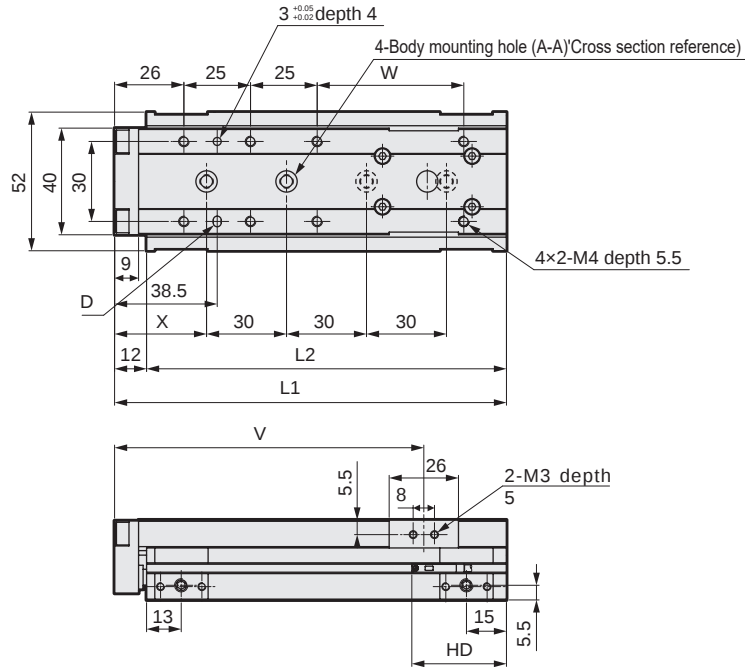
Dimensions (bore size: $\varnothing 12$)



● LCR-G-12-HP1

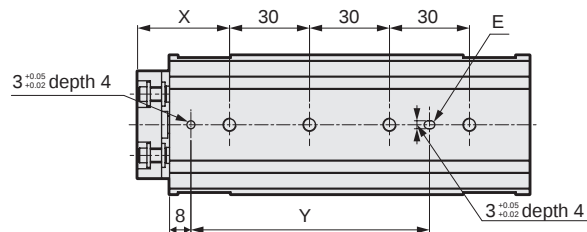
Stroke: 75, 100

(Body mounting hole in the figure shows 75 mm stroke)

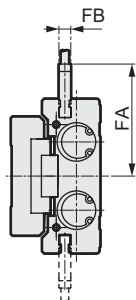


Dimensions by stroke

Stroke	75	100
L1	147	172
L2	135	160
V	116	141
W	55	80
X	34.5	47
Y	89.5	102
RD	24.5	
HD	35.5	



● Dimensions of protruding section when the F2S or F3S cylinder switch is mounted



Stroke	75	100
FA	37.8	
FB	4	
RD	23.5	
HD	36.5	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of **1. Common; Piping** in Pneumatic Cylinders II (No. CB-030SA).

Long service life cylinder

Environment-resistant cylinder

Linear Slide Hand

Low-profile long stroke hand

Wide Parallel Hand

Chuck

Air Booster

Compatible with rechargeable batteries

Supports food mfg. processes

LCR-G-HP1 Series

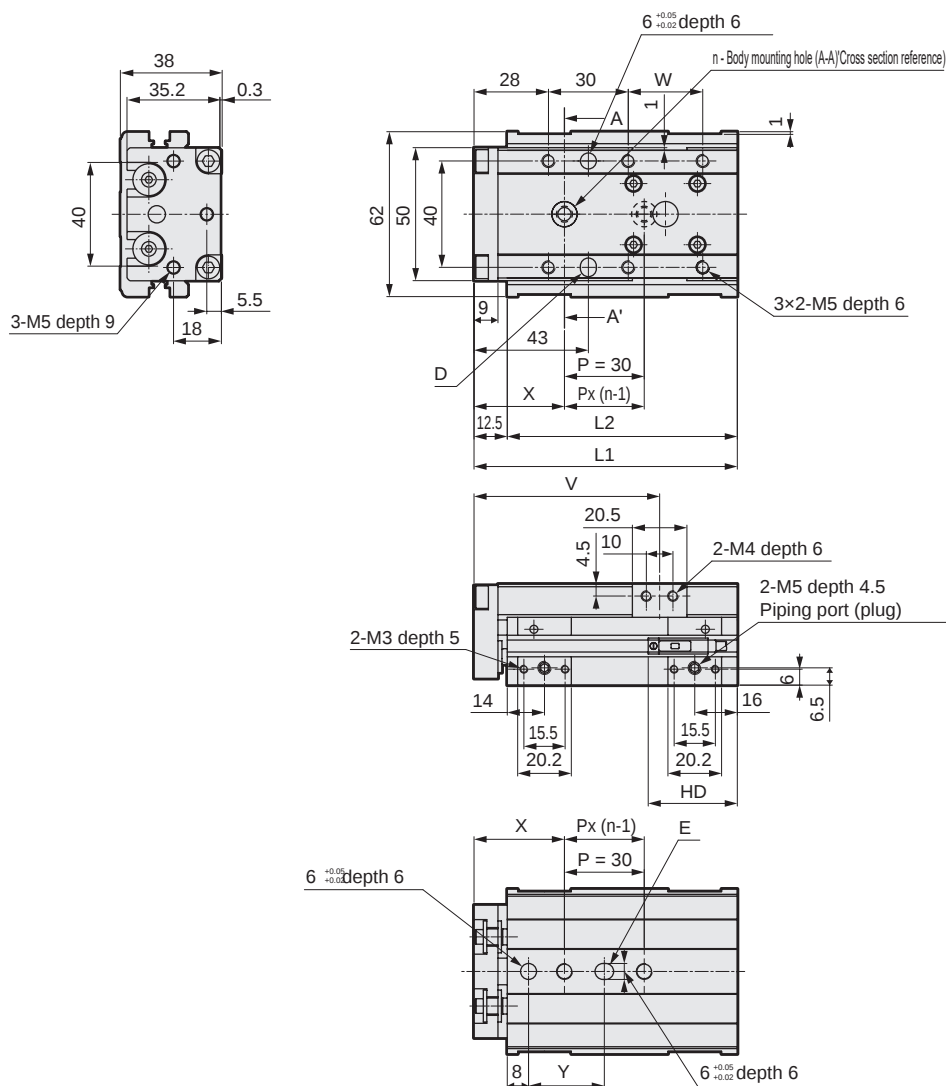
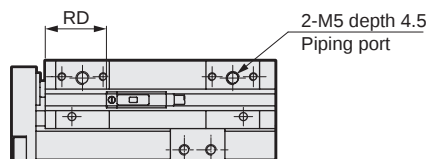


Dimensions (bore size: $\phi 16$)

● LCR-G-16-HP1

Stroke: 10, 20, 30, 40, 50

(Body mounting hole in the figure shows 30 mm stroke)



Dimensions by stroke

Stroke		10	20	30	40	50
L1		99			109	119
L2		86.5			96.5	106.5
n		2			3	
V		69.8			79.8	89.8
W		28			38	48
X		34			45.5	35.5
Y		28.5			40	60
T0/5* T2/3*	RD	23				
	HD	53.5	43.5	33.5		
T2/3W*	RD	25.5				
	HD	51	41	31		

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of 1. Common; Piping in Pneumatic Cylinders II (No. CB-030SA).

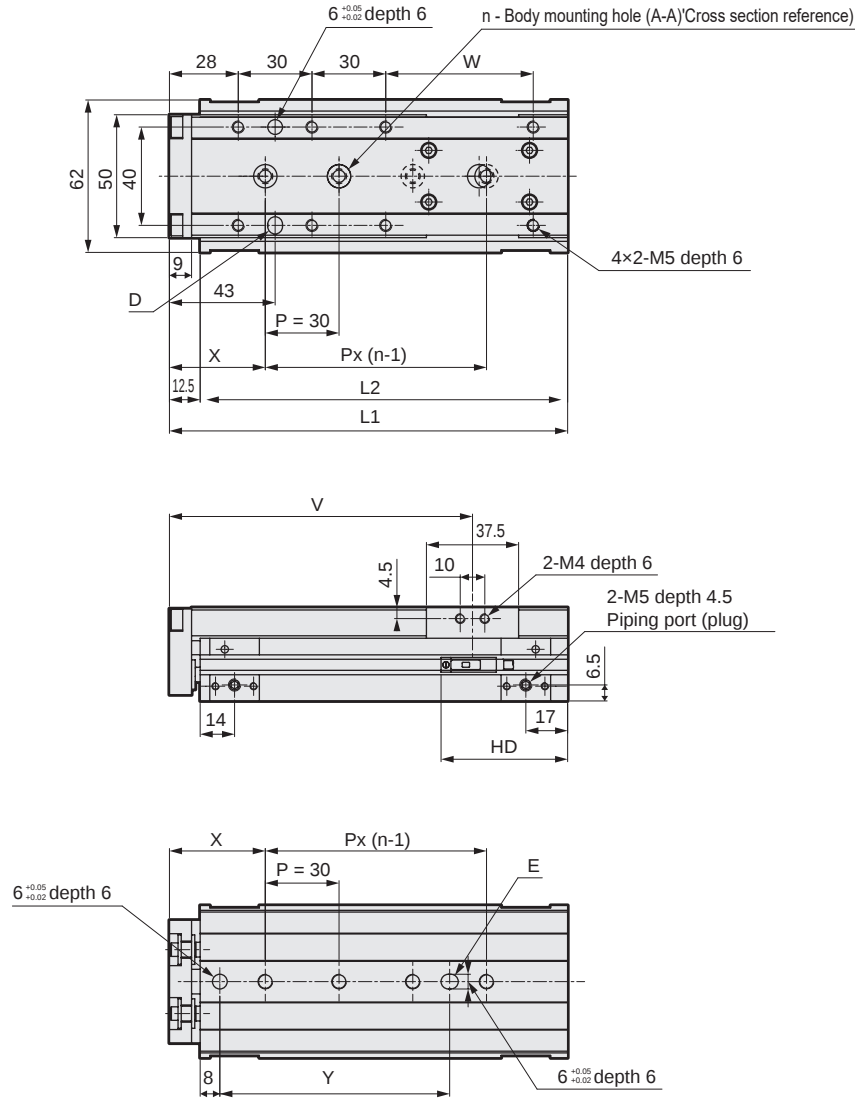
Dimensions (bore size: $\phi 16$)



● LCR-G-16-HP1

Stroke: 75, 100, 125

(Body mounting hole in the figure shows 75 mm stroke)



Dimensions by stroke

Stroke	75	100	125
L1	162	187	212
L2	149.5	174.5	199.5
n	4	5	
V	123.3	148.3	173.3
W	60	85	110
X	39	37	49
Y	93.5	121.5	133.5
T0/5*	RD	23	
T2/3*	HD	51.5	
T2/3W*	RD	25.5	
	HD	49	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of **1. Common; Piping** in Pneumatic Cylinders II (No. CB-030SA).

SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCPD3	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
STS	
STL	
LSH	Linear Slide Hand
LSHL	
LSHM	
LST	Low-profile long stroke hand
LSTM	
HMC	Wide Parallel Hand
CKW	Chuck
ABP2	Air Booster
SCPD3	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	
SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCPD3	Supports food mfg. processes
CMK2	
SCM	
SCG	
SSD2	
STG	

LCR-G-HP1 Series

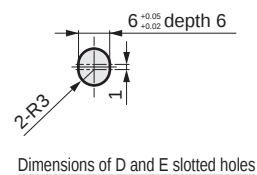
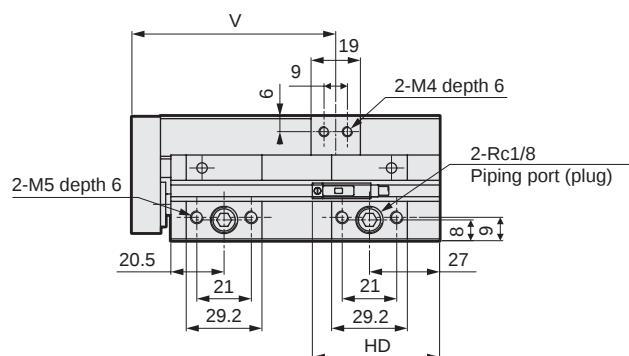
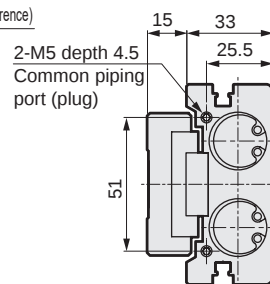
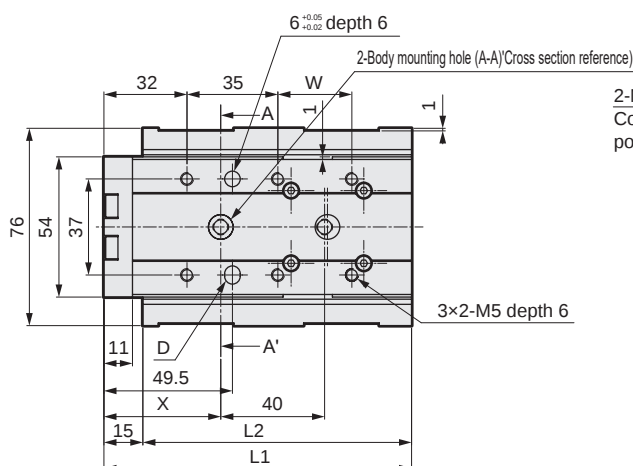
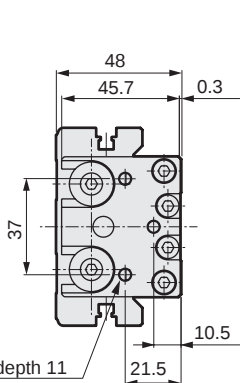
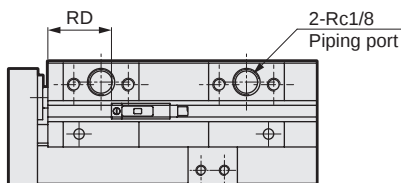


Dimensions (bore size: $\phi 20$)

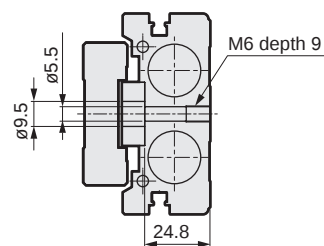
● LCR-G-20-HP1

Stroke: 10, 20, 30, 40, 50

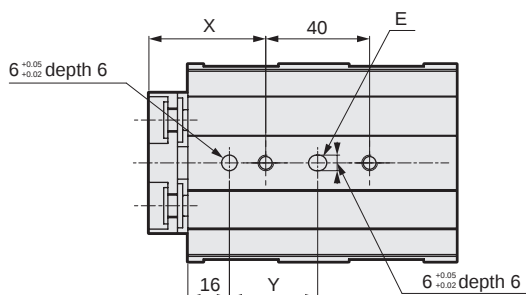
(Body mounting hole in the figure shows 30 mm stroke)



Dimensions of D and E slotted holes



A - A' Cross-section



Dimensions by stroke

Stroke	10	20	30	40	50
L1		118.5		128.5	138.5
L2		103.5		113.5	123.5
V		78.5		88.5	98.5
W		28.5		38.5	48.5
X		45		51	49
Y		34		40	38
T0/5*	RD	24.5			
T2/3*	HD	69	59	49	
T2/3W*	RD	26			
	HD	67	57	47	

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of 1. Common; Piping in Pneumatic Cylinders II (No. CB-030SA).

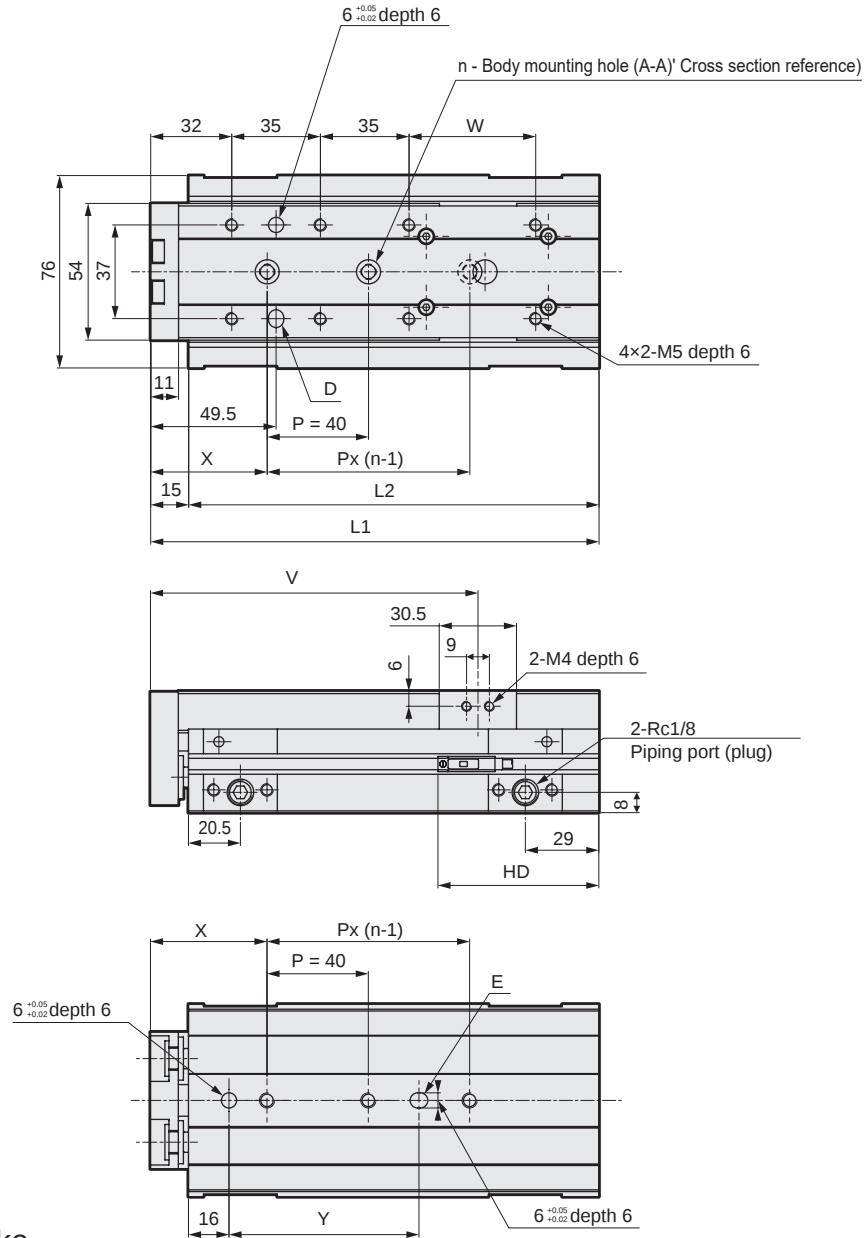
Dimensions (bore size: $\phi 20$)



● LCR-G-20-HP1

Stroke: 75, 100, 125, 150

(Body mounting hole in the figure shows 75 mm stroke)



Dimensions by stroke

Stroke	75	100	125	150
L1	177	202	227	252
L2	162	187	212	237
n	3	4	5	
V	129.3	154.3	179.3	204.3
W	50	75	100	125
X	46	53	51	
Y	75	115	122	160
T0/5*	RD	24.5		
T2/3*	HD	63.5		
T2/3W*	RD	26		
	HD	61.5		

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of **1. Common; Piping** in Pneumatic Cylinders II (No. CB-030SA).

SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCPD3	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
STS	
STL	
LSH	Linear Slide Hand
LSHL	
LSHM	
LST	Low-profile long stroke hand
LSTM	
HMC	Wide Parallel Hand
CKW	Chuck
ABP2	Air Booster
SCPD3	Compatible with rechargeable batteries
CMK2	
SCM	
SSD2	
MSD	
MSDG-L	
SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCPD3	Supports food mfg. processes
CMK2	
SCM	
SCG	
SSD2	
STG	

LCR-G-HP1 Series

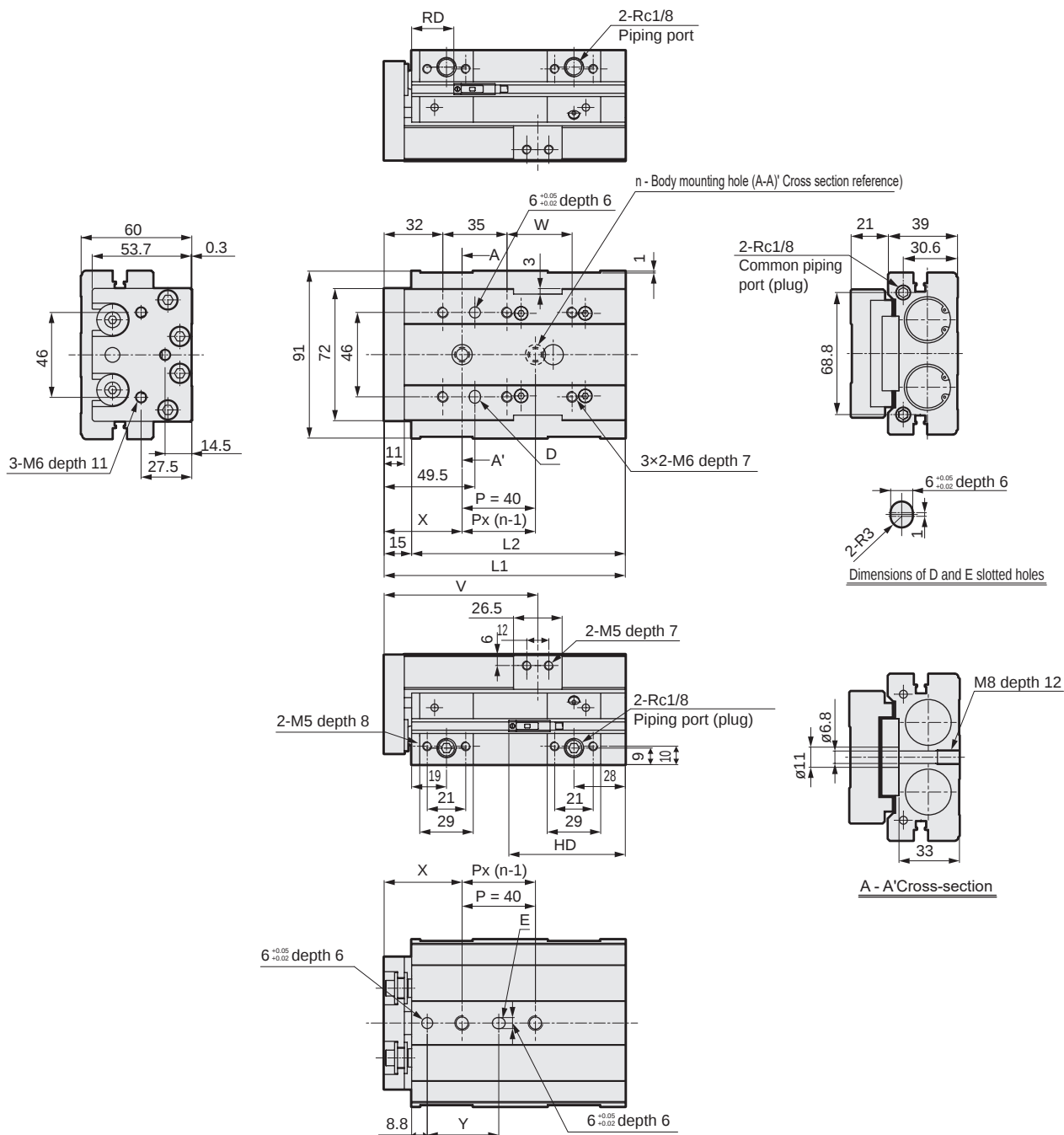


Dimensions (bore size:ø25)

● LCR-G-25-HP1

Stroke: 10, 20, 30, 40, 50

(Body mounting hole in the figure shows 30 mm stroke)



Dimensions by stroke

Stroke		10	20	30	40	50
L1		131.5			141.5	151.5
L2		116.5			126.5	136.5
n		2			3	2
V		83.8			93.8	103.8
W		35.5			45.5	55.5
X		42.5			45.5	60.5
Y		39			42	57
T0/5* T2/3*	RD	23				
	HD	83.5	73.5	63.5		
T2/3W*	RD	25				
	HD	81.5	71.5	61.5		

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of 1. Common; Piping in Pneumatic Cylinders II (No. CB-030SA).

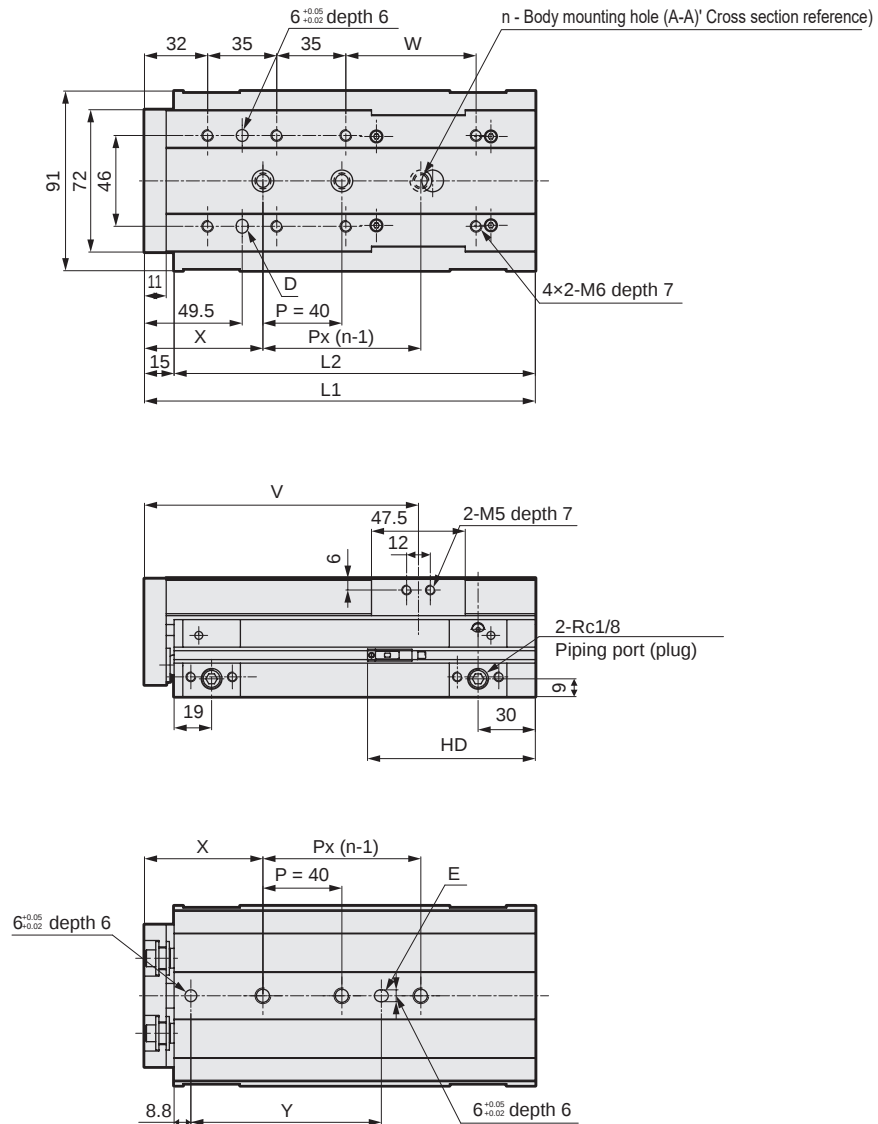
Dimensions (bore size: $\varnothing 25$)



● LCR-G-25-HP1

Stroke: 75, 100, 125, 150

(Body mounting hole in the figure shows 75 mm stroke)



Dimensions by stroke

Stroke	75	100	125	150
L1	199	224	249	274
L2	184	209	234	259
n	3	4	5	
V	138.8	163.8	188.8	213.8
W	66	91	116	141
X	60	55	45	60
Y	96.5	131.5	161.5	176.5
T0/5*	RD	23		
T2/3*	HD	86		
T2/3W*	RD	25		
	HD	84		

*1: When using the positioning hole, use a pin of dimensions that do not require press fitting. The recommended tolerance of a pin is JIS tolerance m6 or less.

*2: When using rear piping, refer to the cautions of **1. Common; Piping** in **Pneumatic Cylinders II (No. CB-030SA)**.

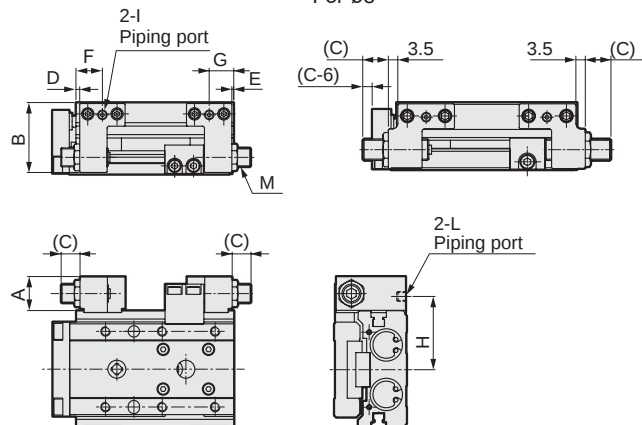
SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCPD3	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
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LSH	Linear Slide Hand
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SMG	
STG	
STM	
LCR	
LCG	
STR2	
LSH	
LSHL	
SCPD3	Supports food mfg. processes
CMK2	
SCM	
SCG	
SSD2	
STG	

LCR-G-HP1 Series

Dimensions: options

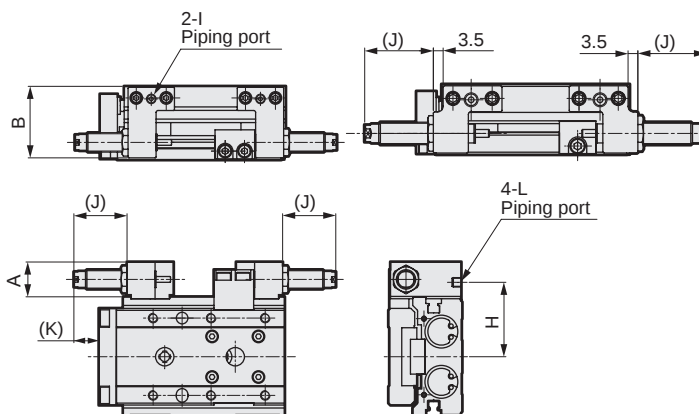
● Stroke adjusting stopper (S1 to S6)

• For ø8



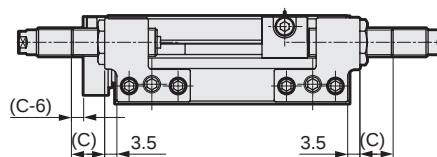
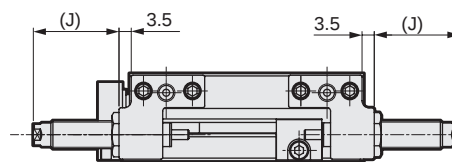
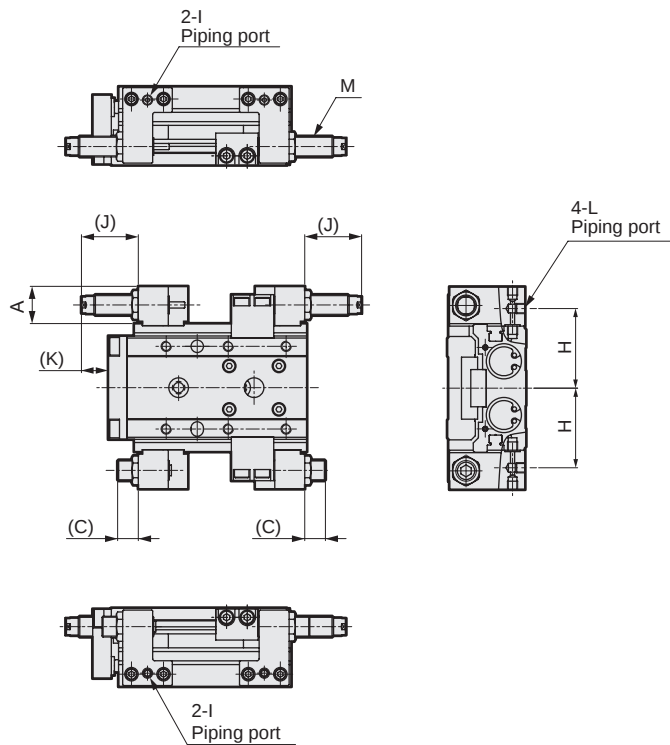
● Shock absorber stopper (A1 to A6)

• For ø8



● Two-sided combined double stopper (W1 to W6)

• For ø8



*1: F, G, H, I and L dimensions are only for the types with port on the stopper (S*D*, A*D*W*, W3** to W6**, C*D*).

2: For one side mixed type stopper mix (C), refer to the stroke adjusting stopper (S*) and shock absorber stopper (A*).

3: Dimension C is that of adjustable stroke range 15 mm for two-sided combined double stopper (W).

Code	A	B	C			D		E		F		G		H	I	J	K	L	M
Bore size (mm)			Adjustable stroke range																
5 mm			15 mm	25 mm	Short	Long	Short	Long	Short	Long	Short	Long							
ø6	14	19.9	11	21	-	14.9	16	1.1	1	24.4	25.5	10.6	10.5	24	M3 depth 3	20.5	9	M3 depth 3	M 8 x 0.75
ø8	15.6	24.5	9.5	19.5	-	4.5	12.5	7.5	0.5	15	23	18	11	27.3	M5 depth 4	24.5	15.5	M5 depth 4	M 8 x 0.75
ø12	15.5	29	12	22	32	1	1	1	3	13	13	13	15	31	M5 depth 4	24.5	12	M5 depth 4	M 8 x 0.75
ø16	18	37	10	20	30	2	2	4	5	14	14	16	17	38.5	M5 depth 4	27.5	14	M5 depth 4	M 10 x 1
ø20	20.5	45.5	14.5	24.5	34.5	4	4	10.5	12.5	20.5	20.5	27	29	47	Rc1/8	27.5	9.5	M5 depth 4	M 12 x 1
ø25	20.5	57	11.5	21.5	31.5	2.5	2.5	11.5	12.5	19	19	28	30	54.5	Rc1/8	24.5	8	M5 depth 4	M 12 x 1