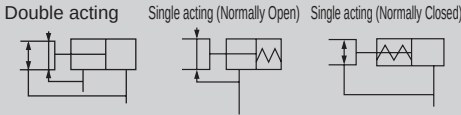


Linear Slide Hand Double acting/Single acting

LSH-A-P4/P40-HP1 Series

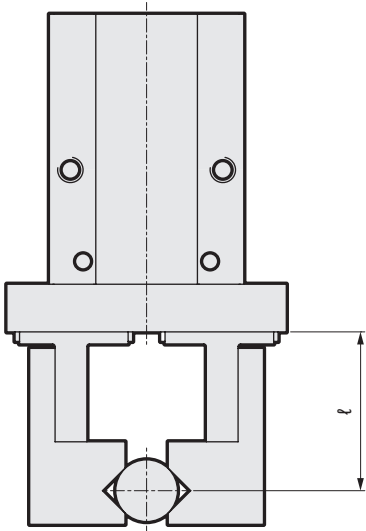
●Operational stroke: 4, 6, 10, 14, 22 mm



Specifications

Item		LSH-A-P4/P40-HP1						
Bore size		mm	ø6	ø10	ø16	ø20	ø25	ø32
Actuation			Double acting/single acting (Normally Open/Normally Closed)					
Working fluid			Compressed air					
Max. working pressure			MPa0.7					
Min. working pressure	MPa	Double acting	0.15	0.2	0.1			
		Single acting	0.3	0.35	0.25			
Port size			M3		M5			
Ambient temperature			°C-10 to 60 (no freezing)					
Operating stroke			mm4		6	10	14	22
Repeatability			mm±0.01					
Weight Double acting (Single acting)	Finger OP: 1, 2, 3		0.032	0.06	0.135	0.275 (0.28)	0.49 (0.495)	0.73 (0.78)
	Finger OP: 4				0.14	0.28 (0.285)	0.495 (0.5)	0.76 (0.81)
Lubrication			Not available					

Gripping force
Refer to pages 206 to 209 for details.



Unit: N

Bore size (mm)	Double acting	
	Open side	Closed side
ø6	6.1	3.3
ø10	17	11
ø16	45	34
ø20	66	42
ø25	104	65
ø32	193	158
Bore size (mm)	Single acting (Normally Open)	
		Closed side
ø6	-	1.9
ø10		7.1
ø16		27
ø20		33
ø25		45
ø32		131
Bore size (mm)	Single acting (Normally Closed)	
	Open side	
ø6	3.7	-
ø10	13	
ø16	38	
ø20	57	
ø25	83	
ø32	161	

* At supply pressure of 0.5 MPa, l = 20 mm, value at stroke center

Refer to the LSH-A Series of "Linear Slide Hand LSH-HP Series (No.CC-1419A)" for dimentions.

How to order

Without switch (built-in magnet for switch) *3

LSH - A 06 D 1 R - P40 - HP1

With switch (built-in magnet for switch)

LSH - A 06 D 1 R - SW81 - D - P4 P40 - HP1

A Rubber cover

B Bore size

C Actuation

D Finger

E Grip center reference, High precision positioning hole

F Switch model No.

G Switch quantity

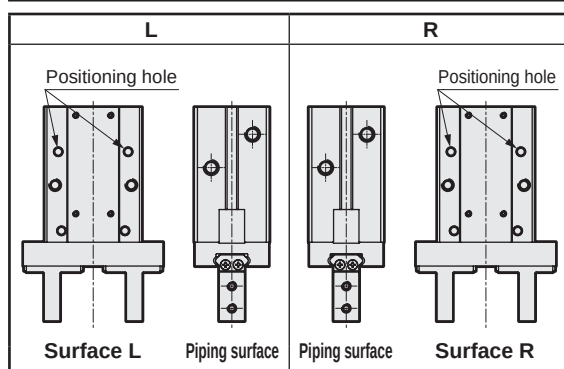
Code	Description
A Rubber cover	
A	Without rubber cover
B Bore size (mm)	
06	ø6
10	ø10
16	ø16
20	ø20
25	ø25
32	ø32
C Actuation	
D	Double acting
S	Single acting/Normally Open
C	Single acting/Normally Closed
D Finger * Refer to the dimentions for details.	
1	Basic
2	Side tap
3	Through hole
4	Flat
E Grip center reference, high precision positioning hole	
N	None
L	Refer to the figure at left.
R	
F Switch model No.	
Blank	No switch, with F-switch rail
N	No switch, no switch rail
A	No switch, with T-switch rail (ø32 only)
Refer to the compatibility table on pages 210 to 213 for switch model No.	
G Switch quantity	
R	1 on open side
H	1 on closed side
D	2

*1: If the one with the switch is selected, the product comes with a rail plate corresponding to the switch.

*2: Only ø32 can be selected for the T-switch

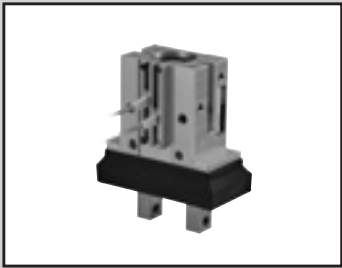
*3: When without switch, HP1 supports P4 specifications

Grip center reference, High precision positioning hole position diagram



Switch mounting availability table

Model No.	Switch model No.	Side mounting	Rail mounting
LSH-A06	F2/3 □	●	-
	F2/3S	-	●
LSH-A10	F2/3 □	●	●
	F2/3S	●	●
LSH-A16	F2/3 □	●	●
	F2/3S	●	●
LSH-A20	F2/3 □	●	●
	F2/3S	●	●
LSH-A25	F2/3H/PH	-	●
	F2/3V/PV	●	●
	F2/3S	●	●
LSH-A32	F2/3 □	●	●
	F2/3S	●	●
	T2/3 □	-	●

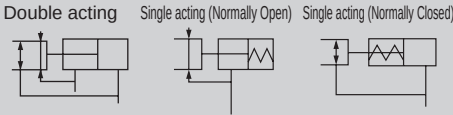


Linear Slide Hand

Double acting/Single acting with rubber cover

LSH-G/LSH-F-P4/P40-HP1 Series

●Operational stroke: 4, 6, 10, 14, 22 mm

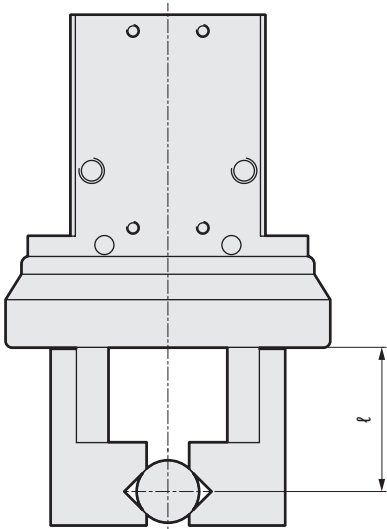


Specifications

Item		LSH-G, F-P4/P40-HP1					
Bore size							

Gripping force

Refer to pages 206 to 209 for details.



Unit: N

Bore size (mm)	Double acting	
	Open side	Closed side
ø6	6.1	3.3
ø10	17	9.8
ø16	40	30
ø20	66	42
ø25	104	65
ø32	193	158
Bore size (mm)	Single acting (Normally Open)	
		Closed side
ø6	-	1.9
ø10		6.3
ø16		24
ø20		28
ø25		45
Bore size (mm)	Single acting (Normally Closed)	
	Open side	
ø6	3.7	-
ø10	12	
ø16	31	
ø20	56	
ø25	83	

* At supply pressure of 0.5 MPa, ℓ = 20 mm, value at stroke center

Refer to the LSH-G/LSH-F Series of "Linear Slide Hand LSH-HP Series (No.CC-1419A)" for dimentions.

LSH-G/LSH-F-P4/P40-HP1 Series

How to order

How to order

Without switch (built-in magnet for switch) *3

LSH - G 06 D 1 R ————— P40 - HP1

With switch (built-in magnet for switch)

LSH - G 06 D 1 R - SW81 - D - P4 P40 - HP1

A Rubber cover

B Bore size

C Actuation

D Finger

E Grip center reference, High precision positioning hole

F Switch model No.

G Switch quantity

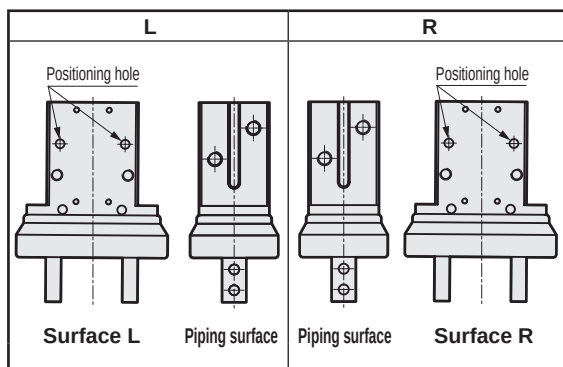
Code	Description
A Rubber cover	
G	Chloroprene rubber
F	Fluoro rubber
B Bore size (mm)	
06	ø6
10	ø10
16	ø16
20	ø20
25	ø25
32	ø32
C Actuation	
D	Double acting
S	Single acting / Normally Open (ø32 cannot be selected)
C	Single acting/Normally Closed (ø32 cannot be selected)
D Finger	
1	Basic
E Grip center reference, high precision positioning hole	
N	None
L	Refer to the figure at left.
R	
F Switch model No.	
Blank	No switch, with F-switch rail
N	No switch, no switch rail
A	No switch, with T-switch rail (ø32 only)
Refer to the compatibility table on pages 210 to 213 for switch model No.	
G Switch quantity	
R	1 on open side
H	1 on closed side
D	2

*1: If the one with the switch is selected, the product comes with a rail plate corresponding to the switch.

*2: Only ø32 can be selected for the T-switch

*3: When without switch, HP1 supports P4 specifications

Grip center reference, High precision positioning hole position diagram



Switch mounting availability table

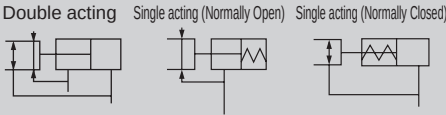
Model No.	Switch model No.	Side mounting	Rail mounting
LSH-G/F06	F2/3 □	●	-
	F2/3S	-	●
LSH-G/F10	F2/3 □	●	●
	F2/3S	●	●
LSH-G/F16	F2/3 □	●	●
	F2/3S	●	●
LSH-G/F20	F2/3 □	●	●
	F2/3S	●	●
LSH-G/F25	F2/3H/PH/PV	-	●
	F2/3V	●	●
	F2/3S	●	●
LSH-G/F32	F2/3 □	●	●
	F2/3S	●	●
	T2/3 □	-	●



Linear Slide Hand Long stroke Double acting/Single acting

LSHL-A-P4/P40-HP1 Series

●Operating stroke: 8, 12, 18, 22 mm

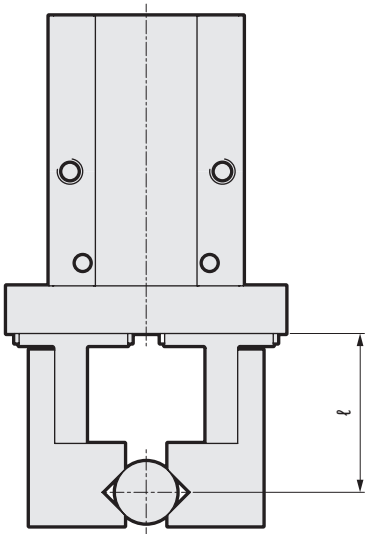


Specifications

Item		LSHL-A-P4/P40-HP1			
Bore size	mm	ø10	ø16	ø20	ø25
Actuation		Double acting/single acting (Normally Open/Normally Closed)			
Working fluid		Compressed air			
Max. working pressure	MPa	0.7			
Min. working pressure	Double acting	0.2		0.1	
	Single acting	0.35		0.25	
Port size		M3		M5	
Ambient temperature	°C	-10 to 60 (no freezing)			
Operating stroke	mm	8	12	18	22
Repeatability	mm	±0.01			
Weight Double acting (Single acting)	Finger OP: 1, 2, 3	0.065 (0.075)	0.155 (0.165)	0.315 (0.335)	0.54 (0.585)
	Finger OP: 4		0.16 (0.17)	0.32 (0.34)	0.545 (0.59)
Lubrication		Not available			

Gripping force

Refer to pages 206 to 209 for details.



Bore size (mm)	Double acting	
	Open side	Closed side
ø10	17	11
ø16	45	34
ø20	66	42
ø25	104	65
Bore size (mm)	Single acting (Normally Open)	
		Closed side
ø10		7.1
ø16		27
ø20		33
ø25		50
Bore size (mm)	Single acting (Normally Closed)	
	Open side	
ø10	13	
ø16	38	
ø20	57	
ø25	85	

* At supply pressure of 0.5 MPa, ℓ = 20 mm, value at stroke center

Refer to the LSHL-A Series of "Linear Slide Hand LSH-HP Series (No.CC-1419A)" for dimentions.

LSHL-A-P4/P40-HP1 Series

How to order

How to order

Without switch (built-in magnet for switch) *2

LSHL - A 10 D 1 R ——— P40 - HP1

With switch (built-in magnet for switch)

LSHL - A 10 D 1 R - SW81 - D - P4 P40 - HP1

A Rubber cover

B Bore size

C Actuation

D Finger

E Grip center reference, High precision positioning hole

F Switch model No.

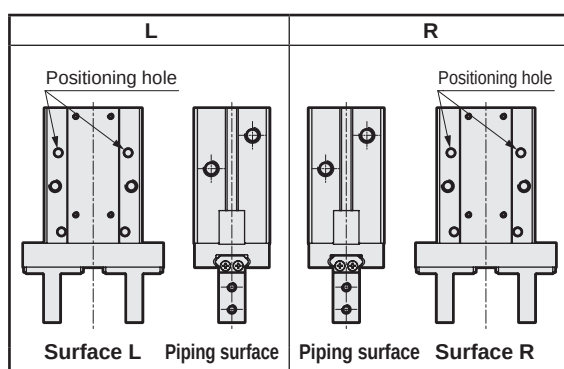
G Switch quantity

Code	Description
A Rubber cover	
A	Without rubber cover
B Bore size (mm)	
10	ø10
16	ø16
20	ø20
25	ø25
C Actuation	
D	Double acting
S	Single acting/Normally Open
C	Single acting/Normally Closed
D Finger * Refer to the dimentions for details.	
1	Basic
2	Side tap
3	Through hole
4	Flat
E Grip center reference, high precision positioning hole	
N	None
L	Refer to the figure at left.
R	
F Switch model No.	
Blank	Without switch, rail plate attached
N	Without switch or rail plate
Refer to the compatibility table on pages 210 to 213 for switch model No.	
G Switch quantity	
R	1 on open side
H	1 on closed side
D	2

*1: When selecting "With switch", a rail plate is attached.

*2: When without switch, supports P4 specifications with HP1

Grip center reference, High precision positioning hole position diagram



Switch mounting availability table

Model No.	Switch model No.	Side mounting	Rail mounting
LSHL-A10	F2/3 □	●	●
	F2/3S	●	●
LSHL-A16	F2/3 □	●	●
	F2/3S	●	●
LSHL-A20	F2/3 □	●	●
	F2/3S	●	●
LSHL-A25	F2/3 □	●	●
	F2/3S	●	●

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	

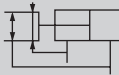


Linear Slide Hand, long stroke, double acting with rubber cover

LSHL-G/LSHL-F-P4/P40-HP1 Series

●Operational stroke: 8, 12, 18 mm

Double acting



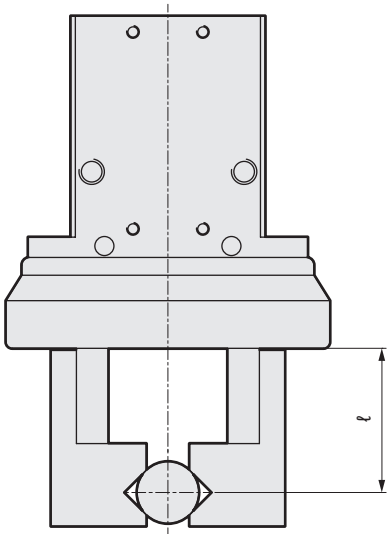
Specifications

Item		LSHL-G, F-P4/P40-HP1		
Bore size	mm	ø10	ø16	ø20
Actuation		Double acting		
Working fluid		Compressed air		
Max. working pressure	MPa	0.7		
Min. working pressure	MPa	0.2	0.1	
Port size		M3	M5	
Ambient temperature	°C	-10 to 60 (no freezing)		
Operating stroke	mm	8	12	18
Repeatability	mm	±0.01		
Weight	kg	0.09	0.18	0.39
Lubrication		Not available		

Gripping force

Refer to pages 206 to 209 for details.

Unit: N



Bore size (mm)	Double acting	
	Open side	Closed side
ø10	17	11
ø16	45	34
ø20	66	42

* At supply pressure of 0.5 MPa, $l = 20$ mm, value at stroke center

Refer to the LSHL-G/LSHL-F Series of "Linear Slide Hand LSH-HP Series (No.CC-1419A)" for dimensions.

LSHL-G/LSHL-F-P4/P40-HP1 Series

How to order

How to order

Without switch (built-in magnet for switch) *2

LSHL - G 10 D 1 R ————— P40 - HP1

With switch (built-in magnet for switch)

LSHL - G 10 D 1 R - SW81 - D - P4 P40 - HP1

A Rubber cover

B Bore size

C Actuation

D Finger

E Grip center reference, High precision positioning hole

F Switch model No.

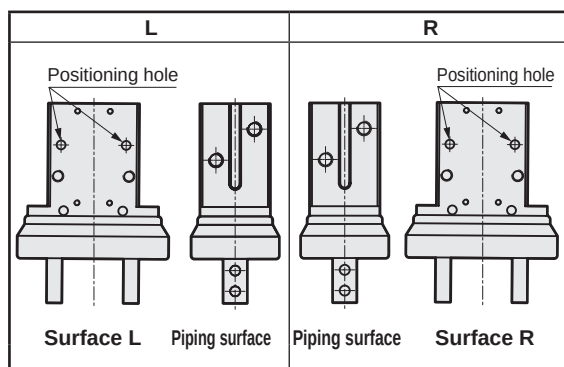
G Switch quantity

Code	Description
A Rubber cover	
G	Chloroprene rubber
F	Fluoro rubber
B Bore size (mm)	
10	ø10
16	ø16
20	ø20
C Actuation	
D	Double acting
D Finger	
1	Basic
E Grip center reference, high precision positioning hole	
N	None
L	Refer to the figure at left.
R	Refer to the figure at left.
F Switch model No.	
Blank	Without switch, rail plate attached
N	Without switch or rail plate
Refer to the compatibility table on pages 210 to 213 for switch model No.	
G Switch quantity	
R	1 on open side
H	1 on closed side
D	2

*1: When selecting "With switch", a rail plate is attached.

*2: When without switch, supports P4 specifications with HP1

Grip center reference, High precision positioning hole position diagram



Switch mounting availability table

Model No.	Switch model No.	Side mounting	Rail mounting
LSHL-G/F10	F2/3 □	●	●
	F2/3S	●	●
LSHL-G/F16	F2/3 □	●	●
	F2/3S	●	●
LSHL-G/F20	F2/3 □	●	●
	F2/3S	●	●

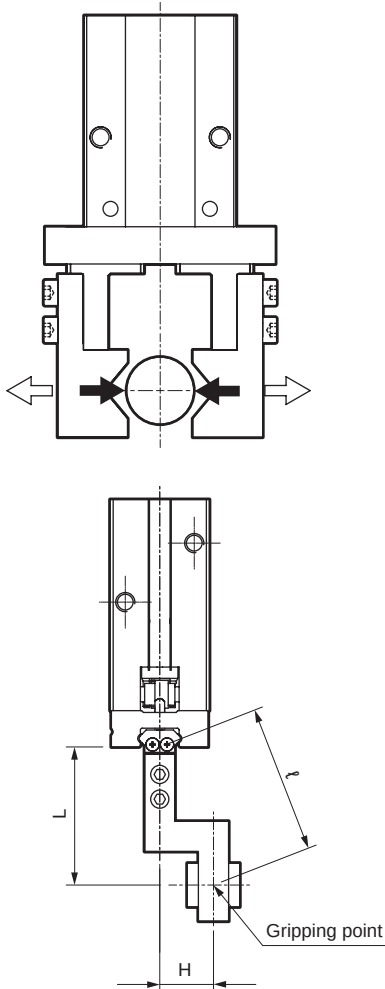
SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	
SMG	
LCR	
LCG	
STM	
STG	
STR2	
SCPD3	Environment-resistant cylinder
CMK2	
SCM	
SCG	
SSD2	
SMG	
LCR	
STG	
STS	
STL	
LSH	Linear Slide Hand
LSHL	
LSHM	
LST	Low-profile long stroke hand
LSTM	
HMC	Wide Parallel Hand
CKW	Chuck
ABP2	Air Booster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

LSH-A/LSHL-A-P4/P40-HP1 Series

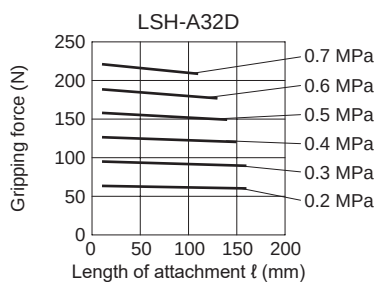
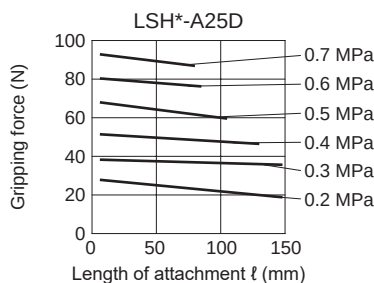
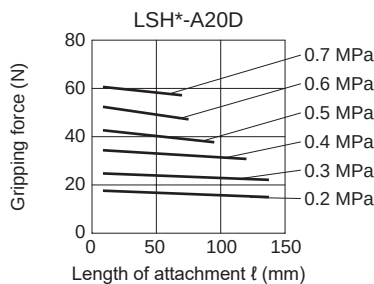
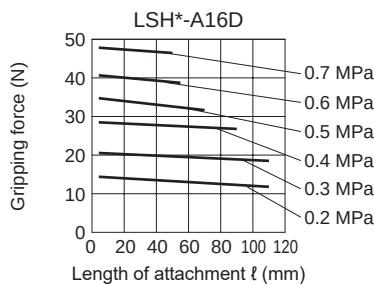
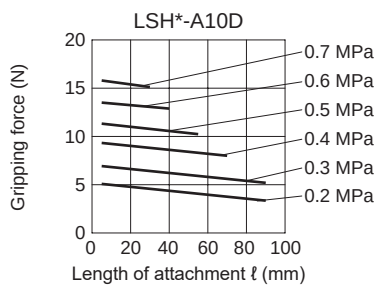
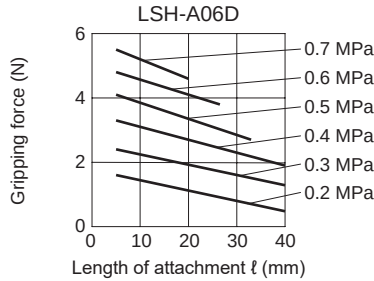
Gripping force performance data LSH-A**D/LSHL-A**D (double acting)

- Gripping force represents the thrust (per one finger) in the arrow direction shown in the figure.
- The gripping force operating in the opening/closing directions against the length () of the attachment when the supply pressure is 0.7 MPa or less is shown.

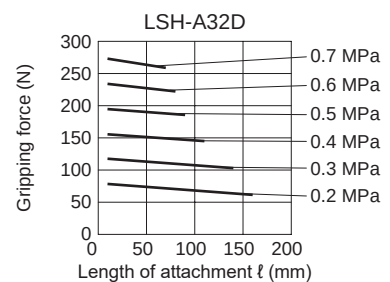
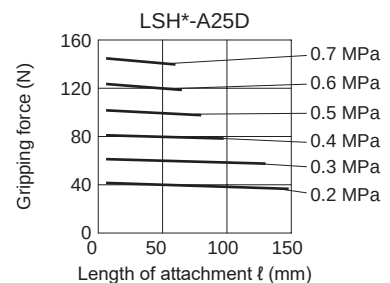
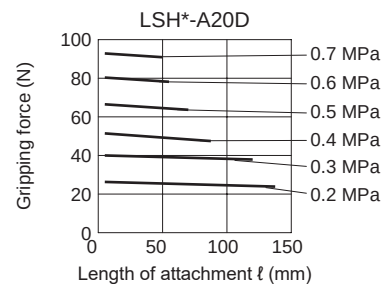
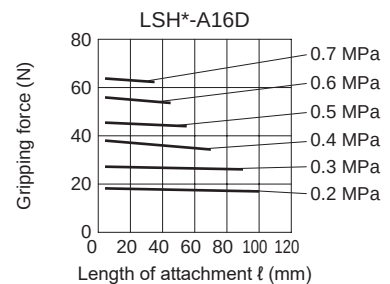
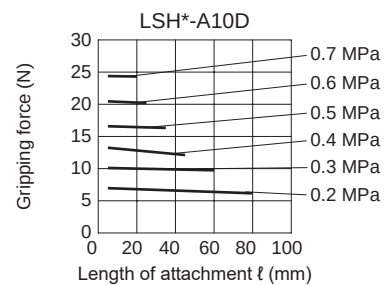
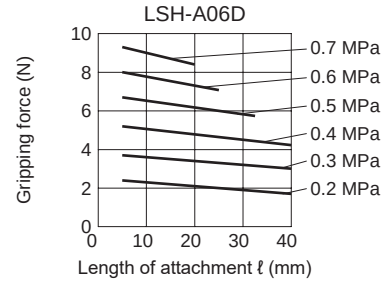
- Open direction (←)
- Close direction (→)



Close direction



Open direction



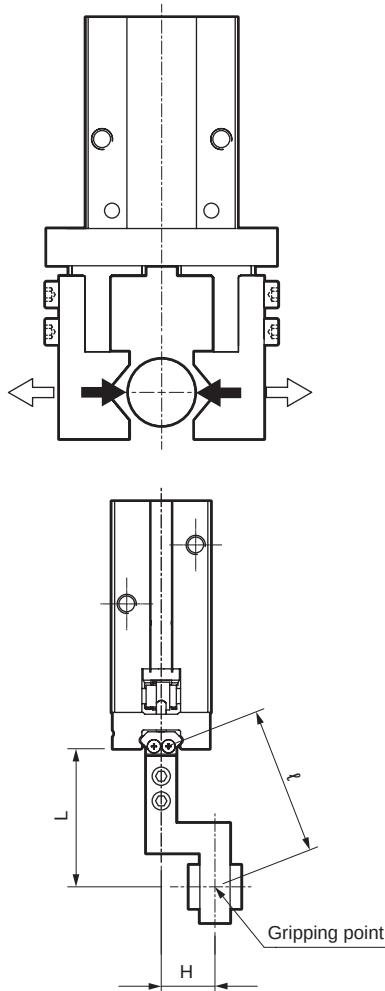
LSH-A/LSHL-A-P4/P40-HP1 Series

Gripping force performance data

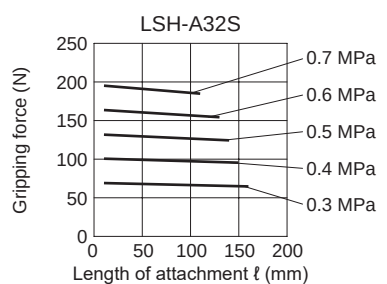
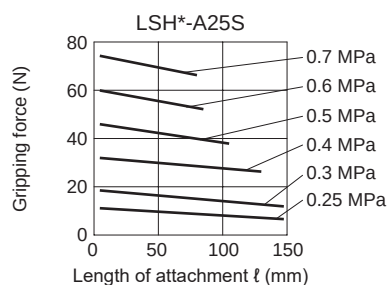
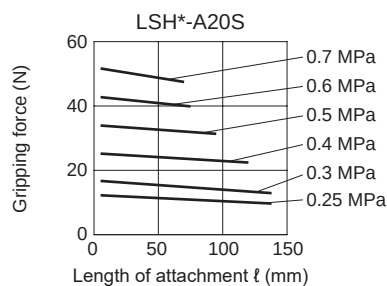
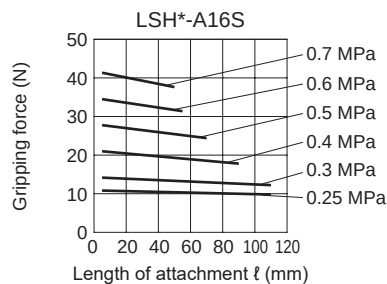
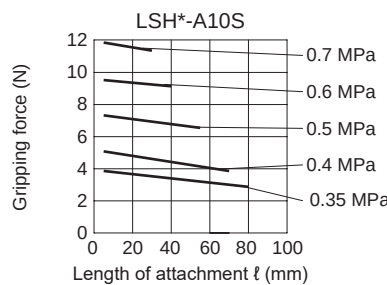
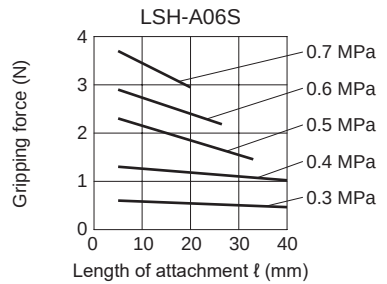
Gripping force performance data LSH-A**S/C/LSHL-A**S/C (single acting)

- Gripping force represents the thrust (per one finger) in the arrow direction shown in the figure.
- The gripping force operating in the opening/closing directions against the length () of the attachment when the supply pressure is 0.7 MPa or less is shown.

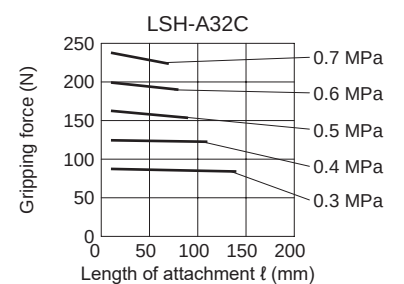
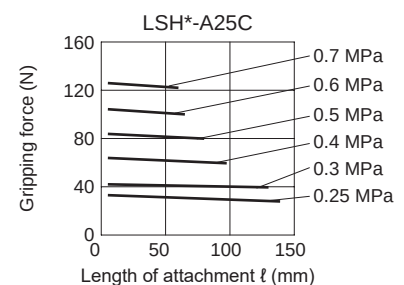
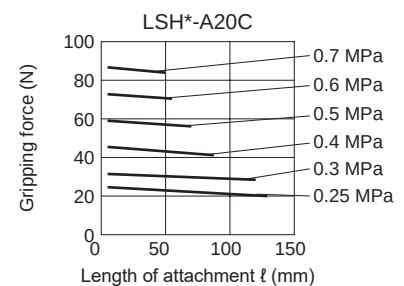
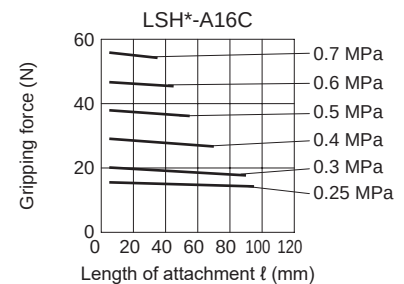
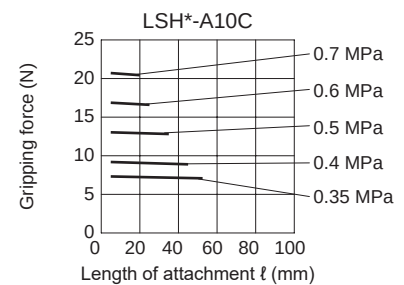
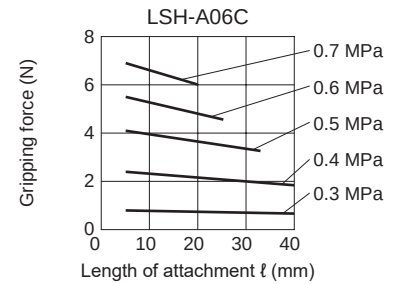
- Open direction (←)
- Close direction (→)



Close direction



Open direction



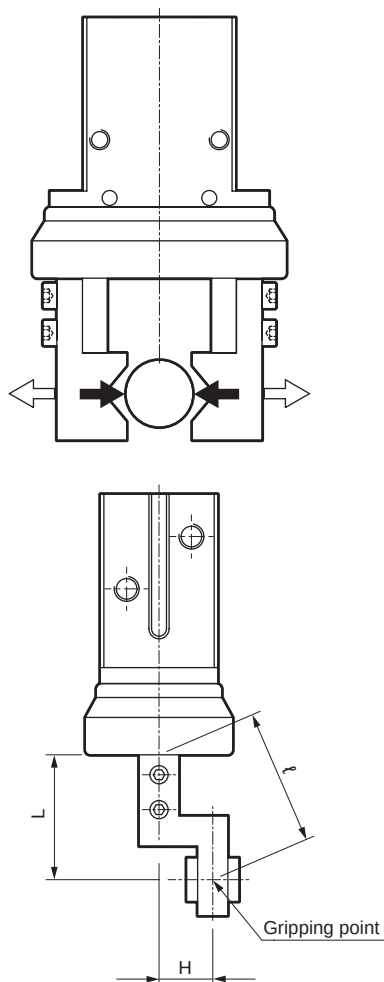
SCPD3	Long service life cylinder
CMK2	
SCM	
SSD2	
MDC2	
MSD	
MSDG-L	Environment-resistant cylinder
SMG	
LCR	
LCG	
STM	
STG	
STR2	Linear Slide Hand
SCPD3	
CMK2	
SCM	
SCG	
SSD2	
SMG	Low-profile long stroke hand
LCR	
STG	
STS	
STL	
LSH	Chuck
LSHL	
LSHM	
LST	
LSTM	
HMC	
CKW	Air Booster
ABP2	
SCPD3	Compatible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

LSH-G_F/LSHL-G_F-P4/P40-HP1 Series

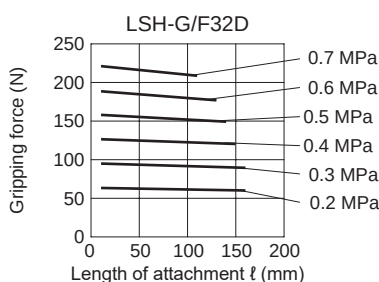
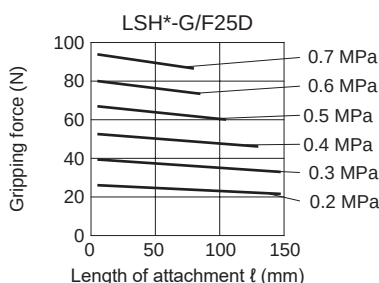
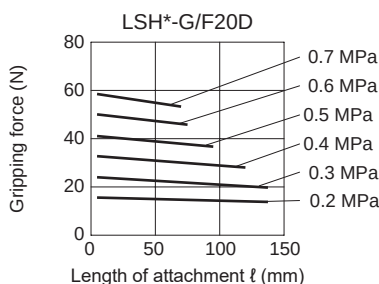
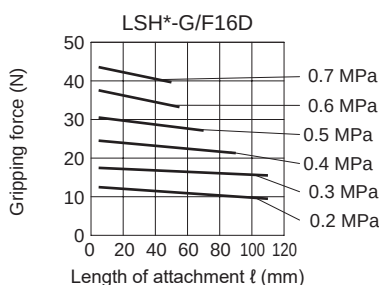
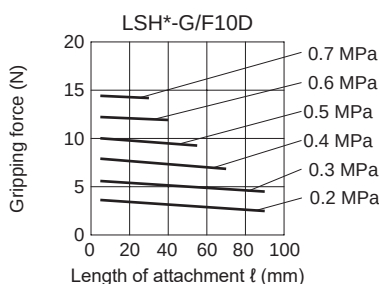
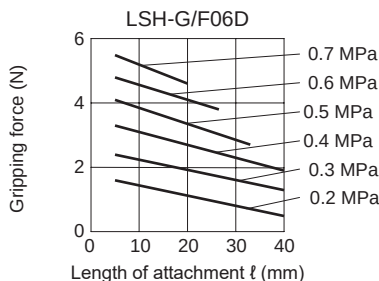
Gripping force performance data LSH-G/F**D/LSHL-G/F**D (double acting)

- Gripping force represents the thrust (per one finger) in the arrow direction shown in the figure.
- The gripping force operating in the opening/closing directions against the length () of the attachment when the supply pressure is 0.7 MPa or less is shown.

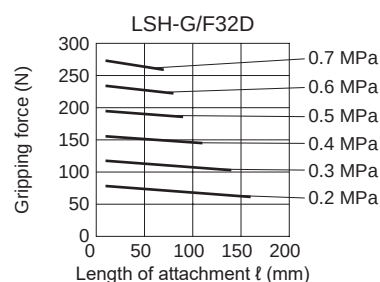
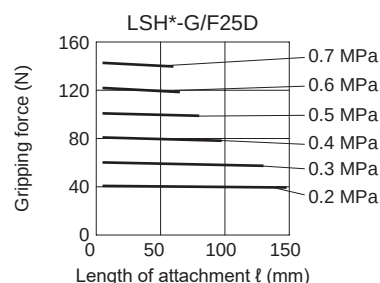
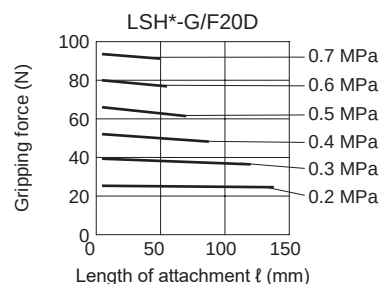
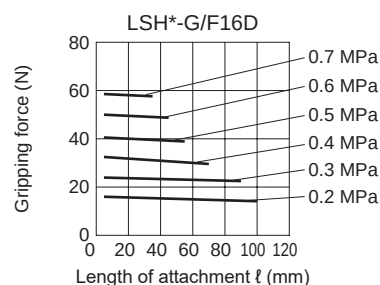
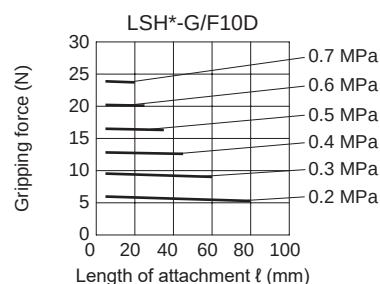
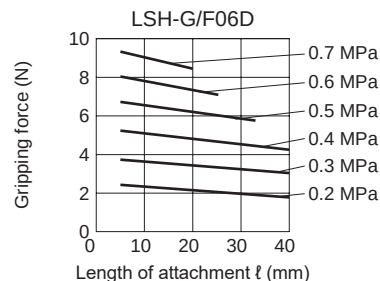
- Open direction (←)
- Close direction (→)



Close direction



Open direction



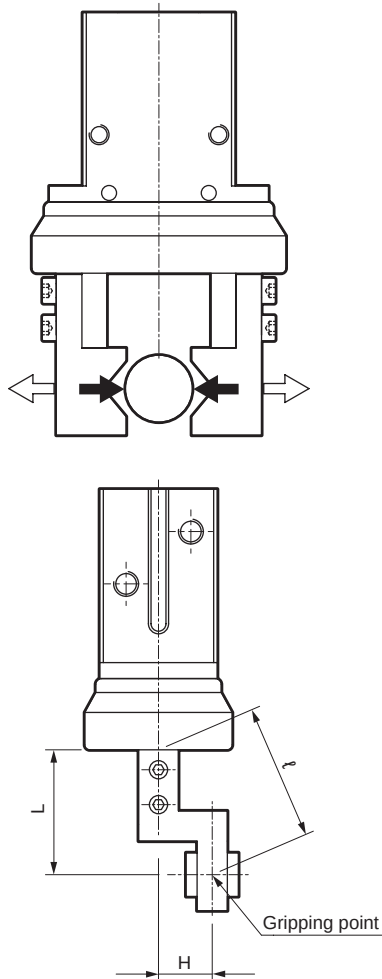
LSH-G/LSH-F-P4/P40-HP1 Series

Gripping force performance data

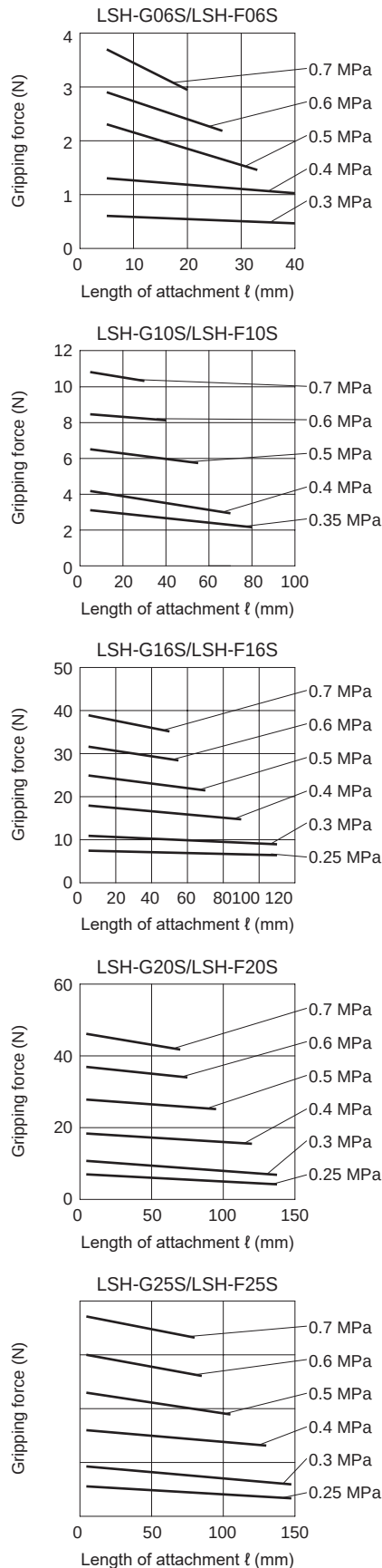
Gripping force performance data LSH-G/F**S/C (single acting)

- Gripping force represents the thrust (per one finger) in the arrow direction shown in the figure.
- The gripping force operating in the opening/closing directions against the length () of the attachment when the supply pressure is 0.7 MPa or less is shown.

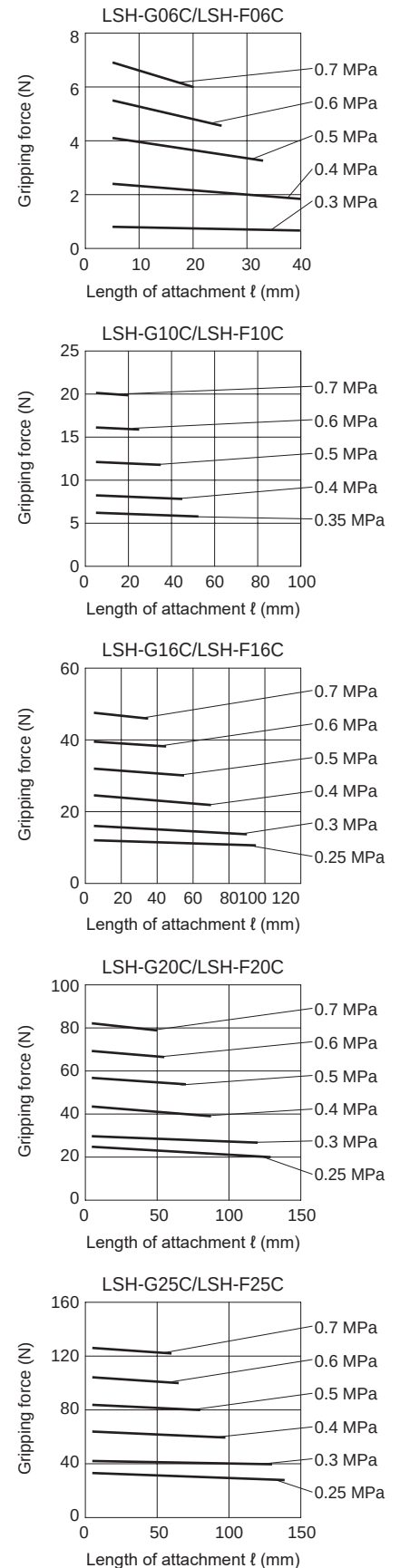
- Open direction (←)
- Close direction (→)



Close direction



Open direction



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	