

NSU Series

Damper stopper cylinder



NSUG Series

- Max. weight of pallet is up to 200kg
- Adjustable damping force based on weight and operating speed of pallet
- Angle damper stopper type is available
- Single / Double acting
- Both direction mounting applicable(NSUP series)
- Wide damping adjustment range
- Auto switch and proximity sensor applicable



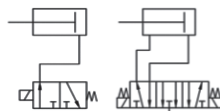
NSUP Series



NSUN Series

Symbol

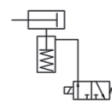
NSUG Series



Single

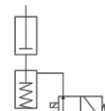
Double

NSUP Series



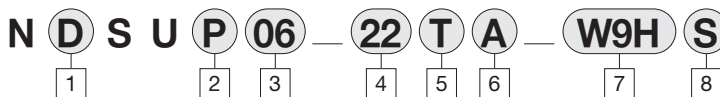
Single

NSUN Series



Double

How to order



1

2

3

4

5

6

7

8

1 Built-in magnet

Blank : None
 D : Built-in magnet for auto switch
 ※ Not applicable for G type

2 Type

P : Damper Stopper
 G : Angle Damper Stopper
 N : Non Damper Stopper

3 Damping force

06 : 60kg
 07 : 70kg
 10 : 100kg
 20 : 200kg
 ※ Only 06 is available with G type
 ※ Only 20 is available with N type

4 Stroke

06 : 22mm
 07 : 22mm
 10 : 35mm
 20 : 08mm
 ※ Up/down stroke for 20

5 Acting

D : Double
 T : Single
 ※ Only single is available with P/N type

6 Stopper type

A : A type
 B : B type
 ※ Only B type is available with P/N type

7 Auto switch

Blank : None
 W9H : Micro auto switch
 (Horizontal, 2-wire type)
 ※ Not applicable for G type
 ※ For 3m lead wire, put "L" at the end ex)W9HL

8 Number of switch

S : 1 pc
 ※ Not applicable more than 1 pc

Specification

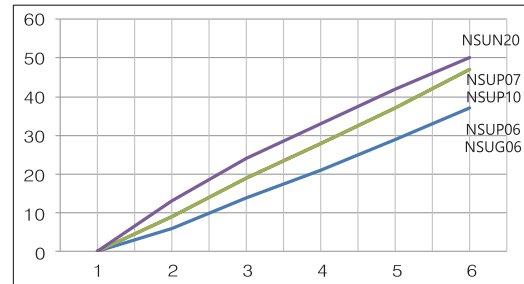
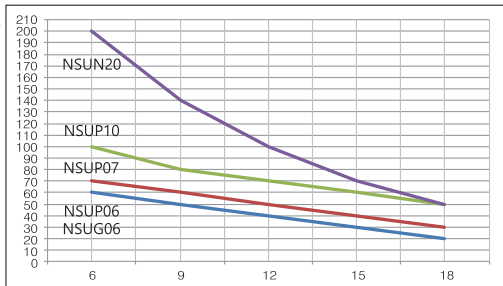
Fluid	Air
Acting	Single/Double
Proof pressure	0.9Mpa (9kgf/cm ²)
Max. operating pressure	0.6Mpa (6kgf/cm ²)
Min. operating pressure	0.4 Mpa (4kgf/cm ²)
Temperature	+ 5°C ~ + 60°C
Stroke tolerance	0 / +1.0mm
Lubrication	Non lubrication

NSUP series proximity sensor bracket

Type		Part No.	Q'ty
A TYPE	For M8	NSUP-PA8	1EA
	For M8	NSUP-PB8	1EA
B TYPE	For M12	NSUP-PB12	1EA

※ Proximity sensor is not provided. Please purchase it separately.

How to select stopper



Coefficient of Friction(CoF)

Belt / band : $\mu = 0.2 \sim 0.3$

Roller chain : $\mu = 0.01 \sim 0.03$

1. Select cylinder size at intersection of transfer speed and weight of transferred object
2. Calculate lateral load based upon CoF of pallet and conveyor roller (lateral load = weight of transferred object * CoF)
3. Select cylinder size based on lateral load and operating pressure

Cautions

1. Allowable torque

Allowable torque for mounting bolt is 50N·m or less.

There could be malfunction on cylinder operation if higher torque is applied, so please manually operate the stopper after installation.



Cautions

Don't touch during operation

2. Stopper damping

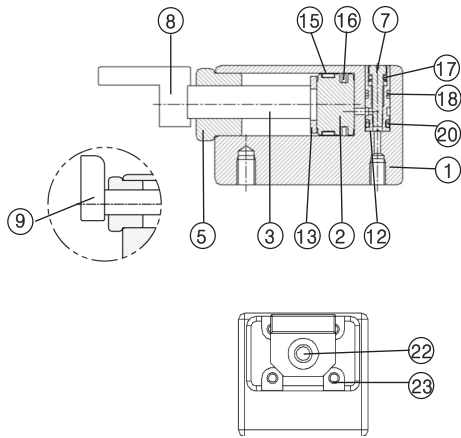
Do not allow a pallet collide with stopper when it's not extracted in order to avoid any damage inside.

3. Load

Please be careful if object is directly installed at the stopper end because higher load could be occurred than lateral load.

Structure / Parts list

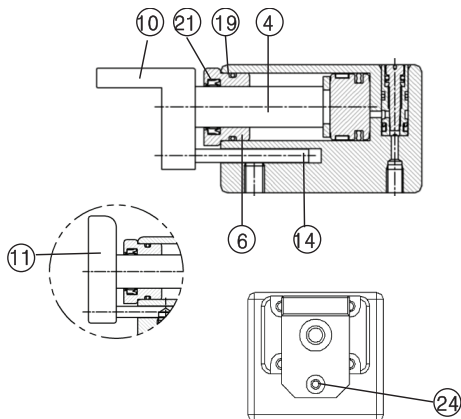
NSUG06-22T(A/B)



Parts list

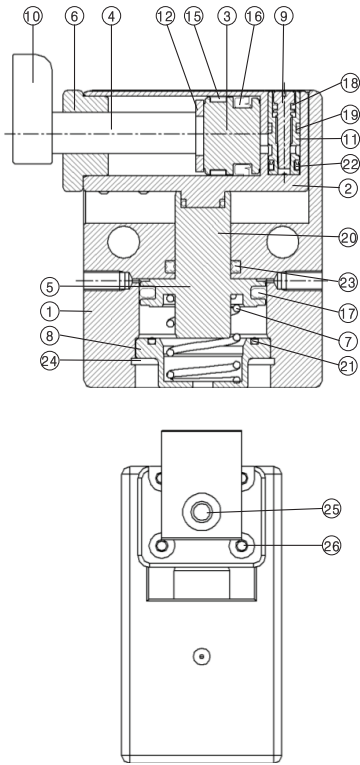
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1	MAIN BODY	Aluminum alloy	1	
2	DAMPER PISTON	Aluminum alloy	1	
3	DAMPER SHAFT	Carbon steel	1	
4	DAMPER SHAFT	Carbon steel	1	Double acting type
5	GUIDE BUSH	Acetal	1	
6	GUIDE BUSH	Acetal	1	Double acting type
7	SPINDLE	Stainless steel	1	
8	STOPPER	Carbon steel	1	TA TYPE
9	STOPPER	Carbon steel	1	TB TYPE
10	STOPPER	Carbon steel	1	DA TYPE
11	STOPPER	Carbon steel	1	DB TYPE
12	BUSH	Brass	1	
13	DAMPER	Urethane	1	
14	GUIDE SHAFT	Carbon steel	1	Double acting type
15	WEAR RING	Acetal	2	
16	PISTON PACKING	NBR	1	
17	O-RING	NBR	1	
18	O-RING	NBR	1	
19	O-RING	NBR	1	Double acting type
20	U-PACKING	NBR	1	
21	ROD PACKING	NBR	1	Double acting type
22	Wrench bolt	Carbon steel	1	
23	Round head bolt	Carbon steel	4	
24	Flat head bolt	Carbon steel	1	Double acting type

NSUG06-22D(A/B)



Structure / Parts list

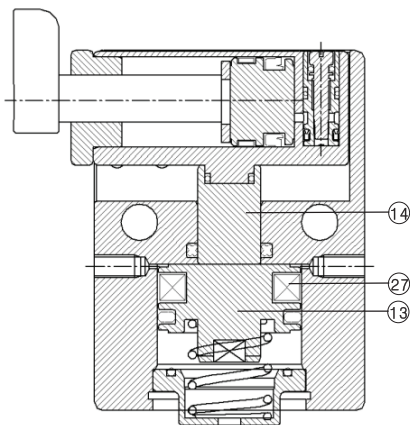
NSUP06-22TB



Parts list

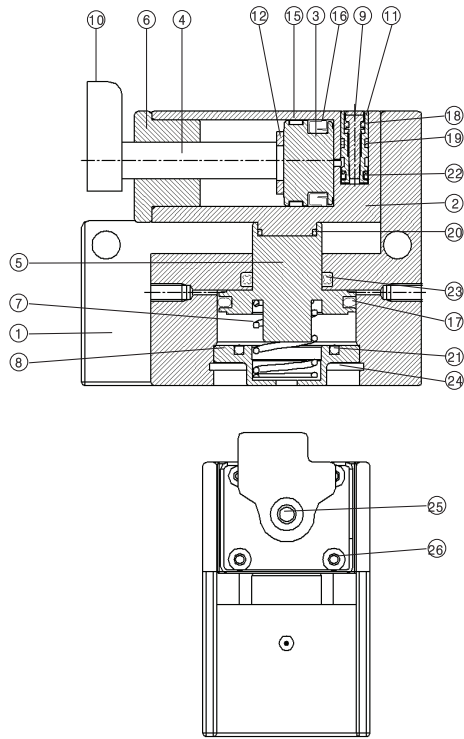
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1	MAIN BODY	Aluminum alloy	1	
2	CYLINDER HEAD	Aluminum alloy	1	
3	DAMPER PISTON	Aluminum alloy	1	
4	DAMPER SHAFT	Carbon steel	1	
5	SHAFT	Carbon steel	1	
6	GUIDE BUSH	Acetal	1	
7	SPRING	Oil tempered wire	1	
8	END CAP	Aluminum alloy	1	
9	SPINDLE	Stainless steel	1	
10	STOPPER	Carbon steel	1	
11	BUSH	Brass	1	
12	DAMPER	Urethane	1	
13	UP/DOWN PISTON	Aluminum alloy	1	Option
14	UP/DOWN SHAFT	Carbon steel	1	Option
15	WEAR RING	Acetal	2	
16	PISTON PACKING	NBR	1	
17	PISTON PACKING	NBR	1	
18	O-RING	NBR	1	
19	O-RING	NBR	1	
20	O-RING	NBR	1	
21	O-RING	NBR	1	
22	U-PACKING	NBR	1	
23	X-RING	NBR	1	
24	SNAP RING	Stainless steel	1	
25	Wrench bolt	Carbon steel	1	
26	Round head bolt	Carbon steel	4	
27	MAGNET RING	NBR+Ba Ferrite	1	Option

NDSUP06-22TB



Structure / Parts list

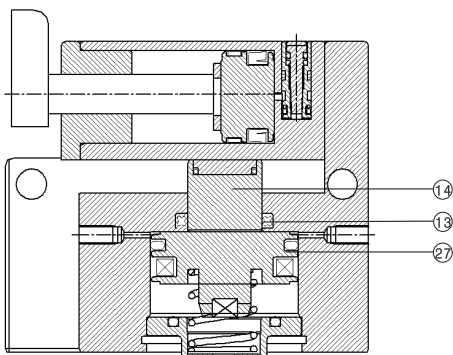
NSUP07-22TB



Parts list

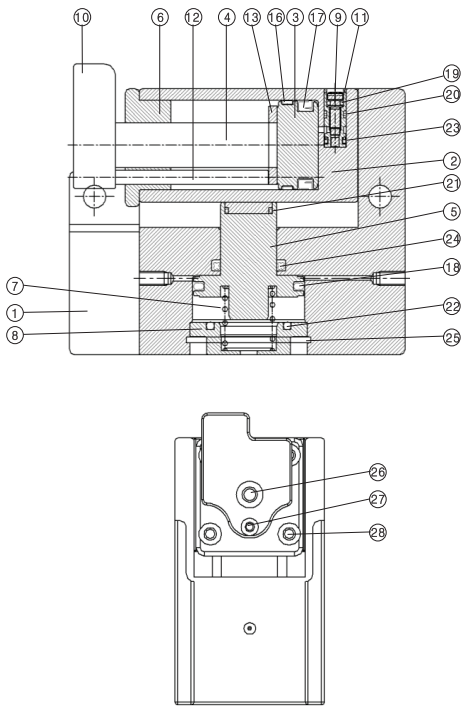
NO	Item	Material	Qty	Remark
1	MAIN BODY	Aluminum alloy	1	
2	CYLINDER HEAD	Aluminum alloy	1	
3	DAMPER PISTON	Aluminum alloy	1	
4	DAMPER SHAFT	Carbon steel	1	
5	SHAFT	Carbon steel	1	
6	GUIDE BUSH	Acetal	1	
7	SPRING	Oil tempered wire	1	
8	END CAP	Aluminum alloy	1	
9	SPINDLE	Stainless steel	1	
10	STOPPER	Carbon steel	1	
11	BUSH	Brass	1	
12	DAMPER	Urethane	1	
13	UP/DOWN PISTON	Aluminum alloy	1	Option
14	UP/DOWN SHAFT	Carbon steel	1	Option
15	WEAR RING	Acetal	2	
16	PISTON PACKING	NBR	1	
17	PISTON PACKING	NBR	1	
18	O-RING	NBR	1	
19	O-RING	NBR	1	
20	O-RING	NBR	1	
21	O-RING	NBR	1	
22	U-PACKING	NBR	1	
23	X-RING	NBR	1	
24	SNAP RING	Stainless steel	1	
25	Wrench bolt	Carbon steel	1	
26	Round head bolt	Carbon steel	4	
27	MAGNET RING	NBR+Ba Ferrite	1	Option

NDSUP07-22TB



Structure / Parts list

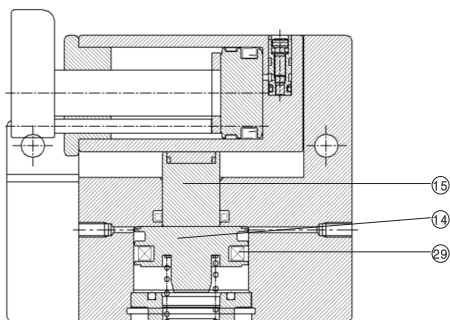
NSUP10-35TB



Parts list

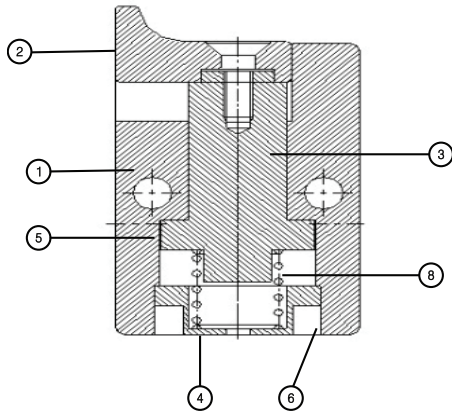
No	Item	Material	Qty	Remark
1	MAIN BODY	Aluminum alloy	1	
2	CYLINDER HEAD	Aluminum alloy	1	
3	DAMPER PISTON	Aluminum alloy	1	
4	DAMPER SHAFT	Carbon steel	1	
5	SHAFT	Carbon steel	1	
6	GUIDE BUSH	Acetal	1	
7	SPRING	Oil tempered wire	1	
8	END CAP	Aluminum alloy	1	
9	SPINDLE	Stainless steel	1	
10	STOPPER	Carbon steel	1	
11	BUSH	Brass	1	
12	GUIDE SHAFT	Carbon steel	1	
13	DAMPER	Urethane	1	
14	UP/DOWN PISTON	Aluminum alloy	1	Option
15	UP/DOWN SHAFT	Carbon steel	1	Option
16	WEAR RING	Acetal	2	
17	PISTON PACKING	NBR	1	
18	PISTON PACKING	NBR	1	
19	O-RING	NBR	1	
20	O-RING	NBR	1	
21	O-RING	NBR	1	
22	O-RING	NBR	1	
23	U-PACKING	NBR	1	
24	X-RING	NBR	1	
25	SNAP RING	Stainless steel	1	
26	Wrench bolt	Carbon steel	1	
27	Flat headed bolt	Carbon steel	1	
28	Round head bolt	Carbon steel	4	
29	MAGNET RING	NBR+Ba Ferrite	1	Option

NDSUP10-35TB



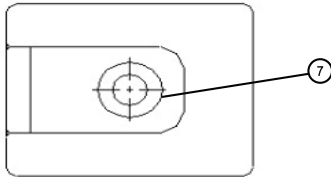
Structure / Parts list

NSUN20-08TB

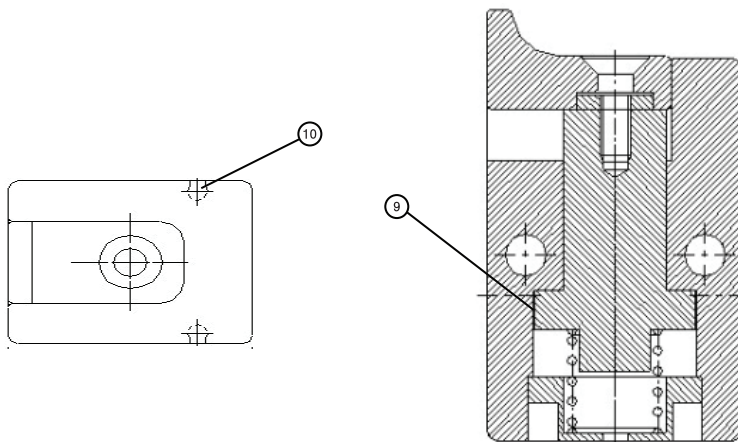


Parts list

No	Item	Material	Qty	Remark
1	MAIN BODY	Aluminum alloy	1	
2	STOPPER	Carbon steel	1	
3	SHAFT	Carbon steel	1	
4	END CAP	Aluminum alloy	1	
5	O-RING	NBR	1	
6	SNAP RING	Stainless steel	1	
7	Flat headed bolt	Carbon steel	1	
8	SPRING		1	
9	MAGNET RING	NBR+Ba Ferrite	1	Option
10	SENSOR		1	Option

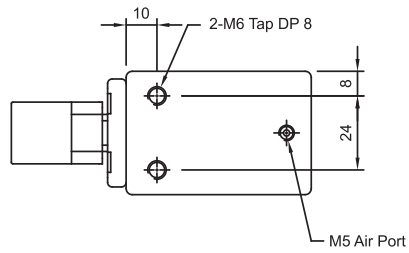
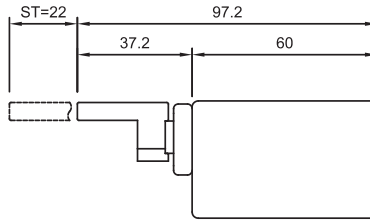
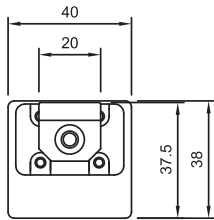


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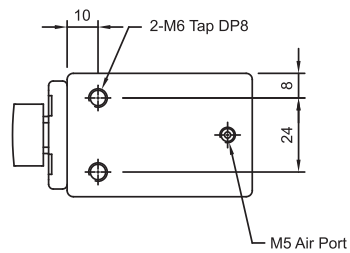
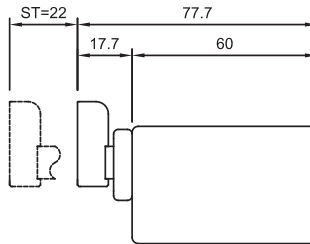
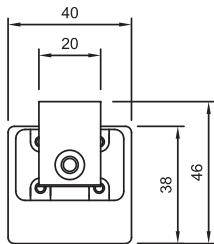


Dimensions

NSUG06-22TA

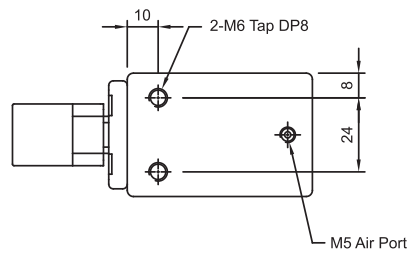
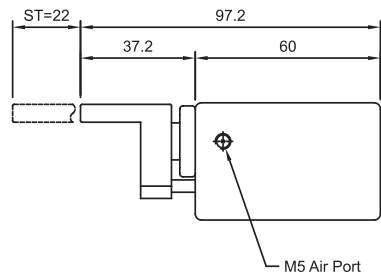
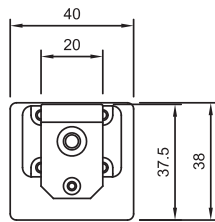


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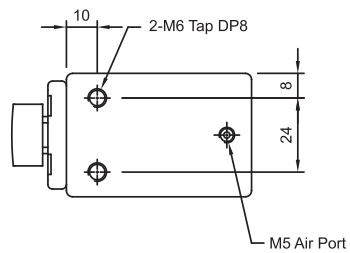
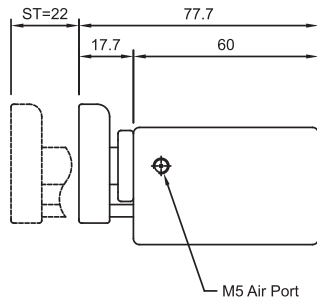
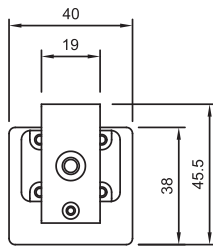


Dimensions

NSUG06-22DA

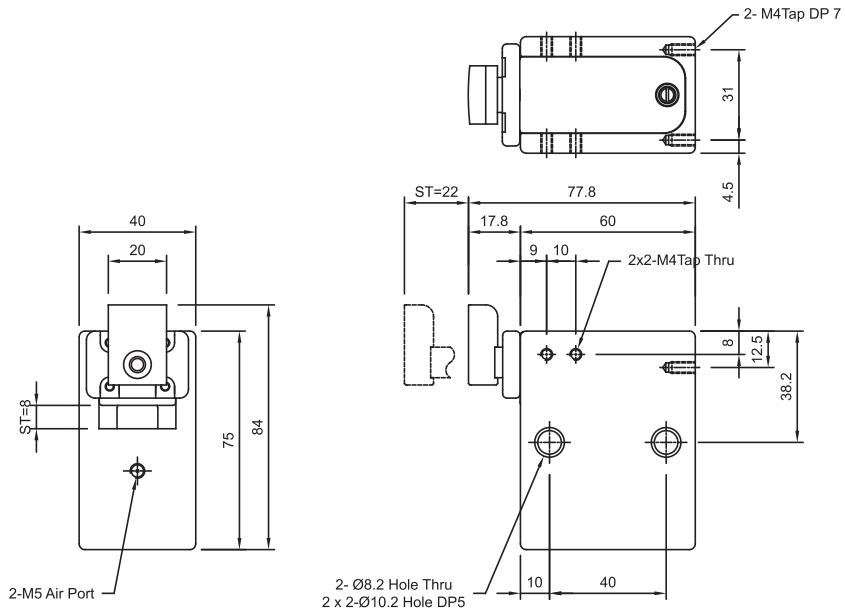


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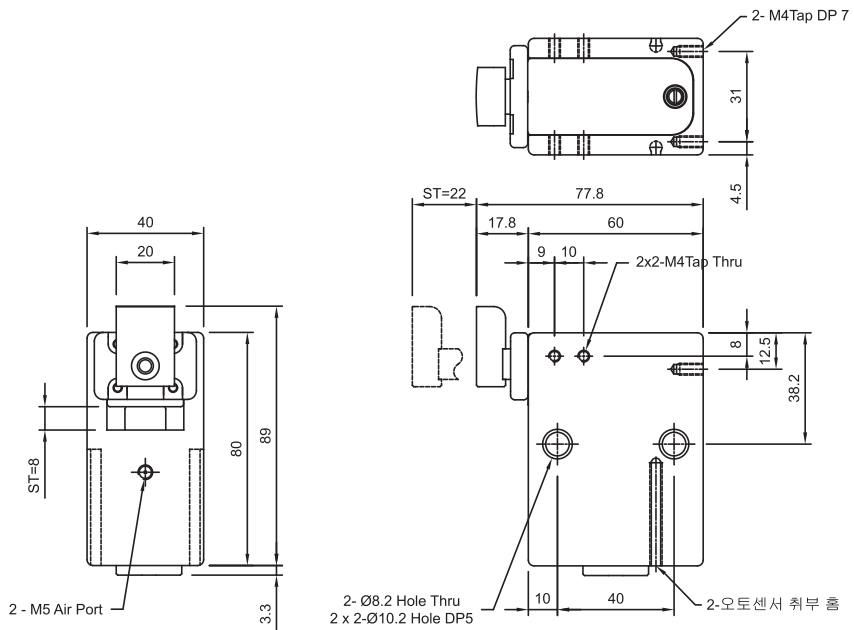


Dimensions

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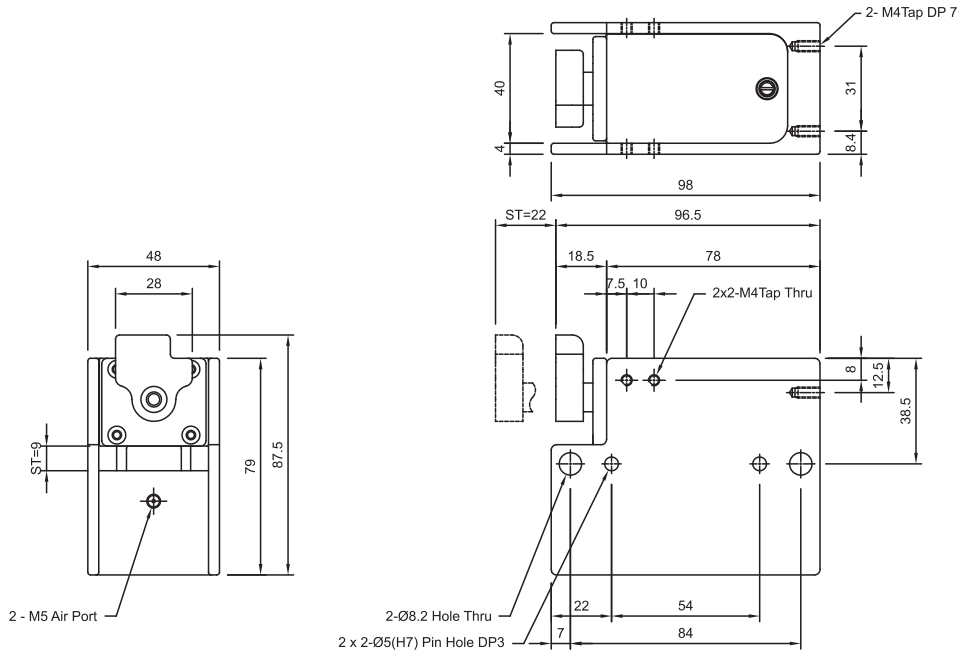


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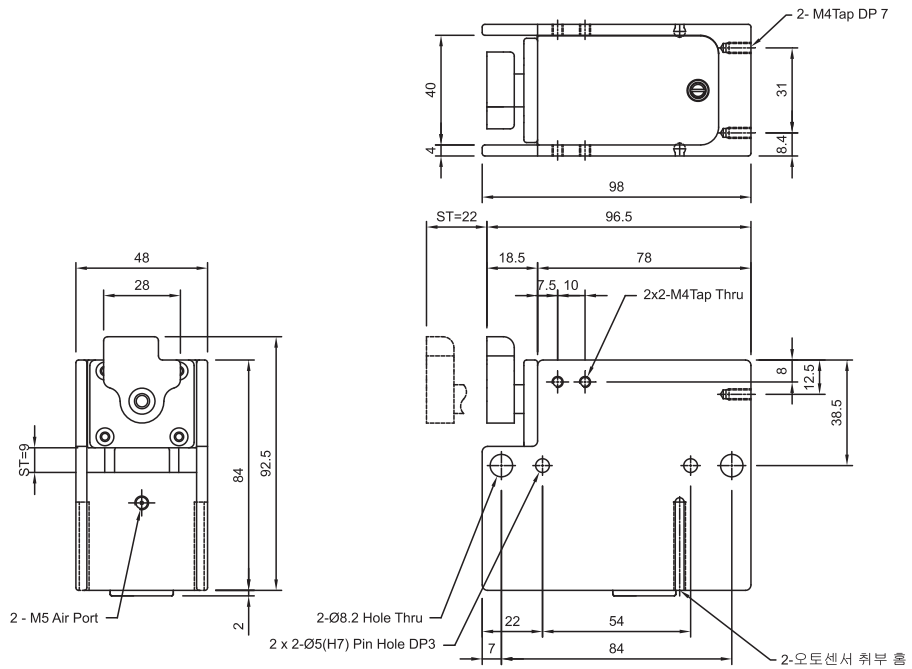


Dimensions

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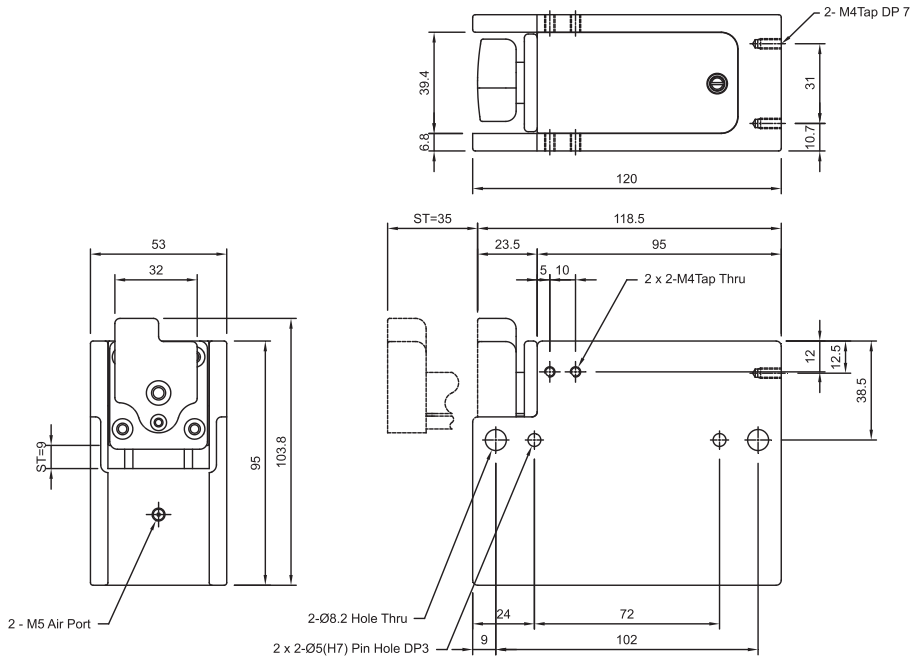


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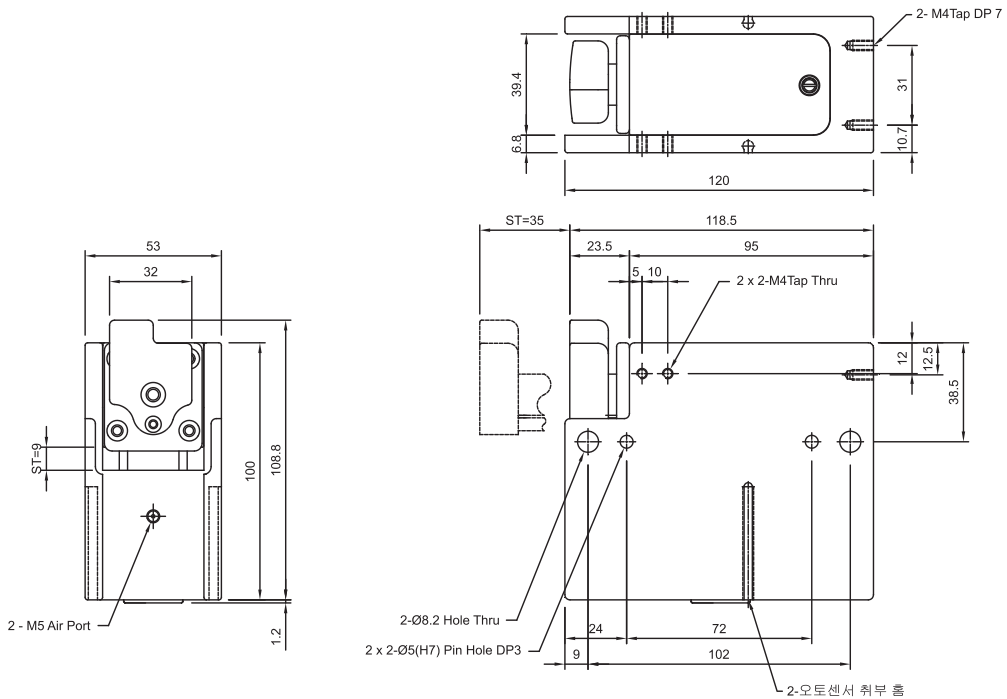


Dimensions

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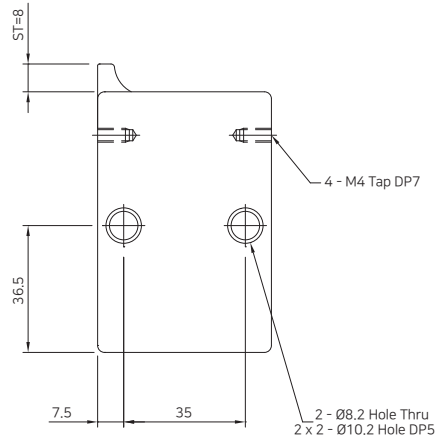
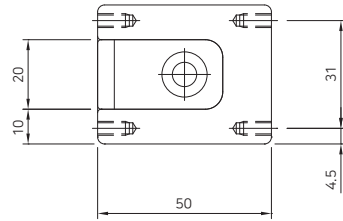
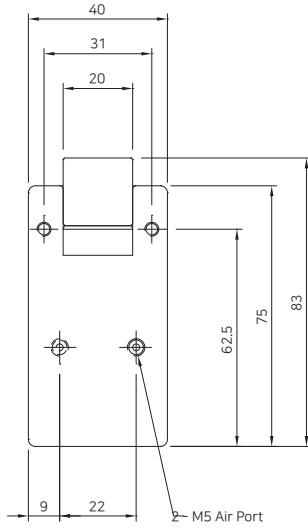


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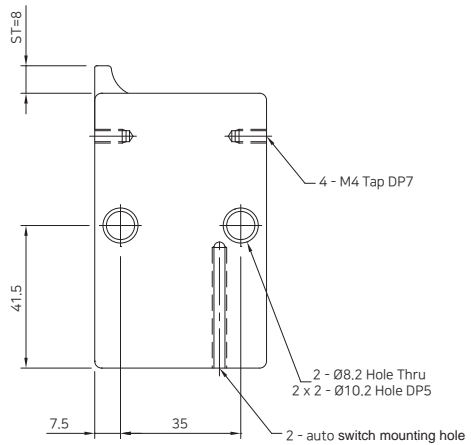
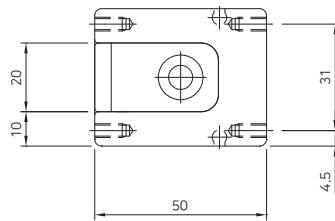
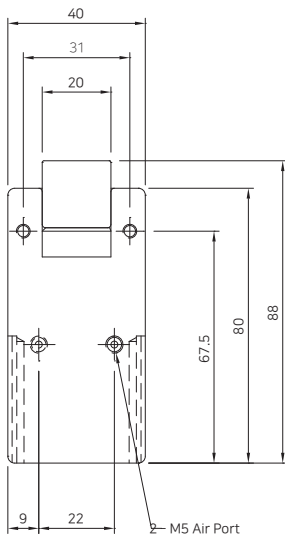


Dimensions

NSUN20-08TB

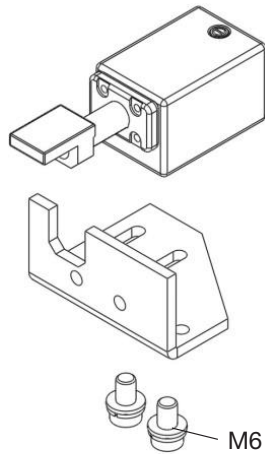


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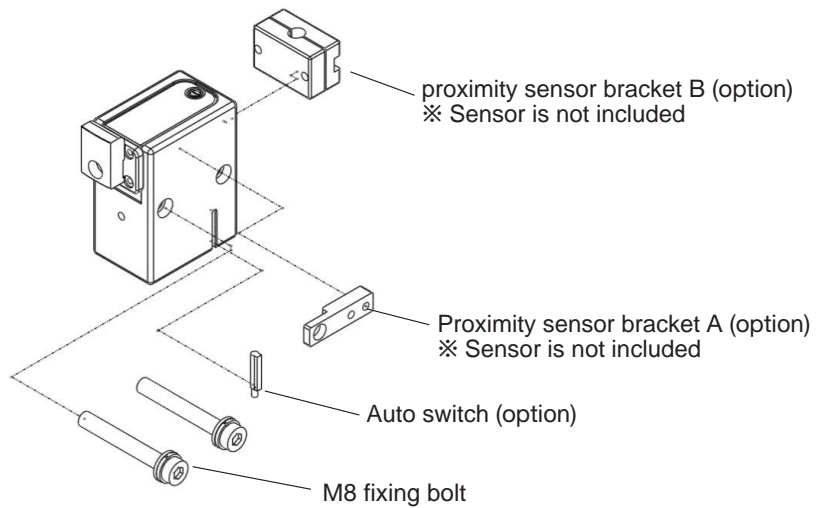
How to install

NSUG Series



M6 wrench bolt

NSUP / NSUN Series



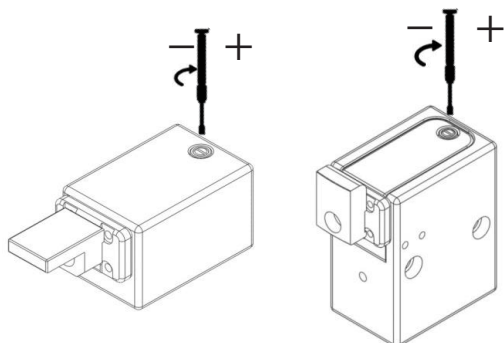
proximity sensor bracket B (option)
※ Sensor is not included

Proximity sensor bracket A (option)
※ Sensor is not included

Auto switch (option)

M8 fixing bolt

How to adjust damping force



- Damping force can be adjusted by spindle.
- Increase damping force by rotating spindle clockwise, and decrease damping force by rotating spindle counter clockwise.