

Slide Unit

Series CXWM/CXWL

Slide bearing/CXWM: $\phi 10$, $\phi 16$, $\phi 20$, $\phi 25$, $\phi 32$

Ball bushing bearing/CXWL: $\phi 10$, $\phi 16$, $\phi 20$, $\phi 25$, $\phi 32$

Provided with shock absorbers to absorb impact and noise.

The slide unit can absorb energy in a wide range, in high-speed, low-load applications to low-speed, high-load applications, without requiring adjustments.

Ensures high positional accuracy

A high level of positional accuracy can be attained because the two parallel piston rods prevent the rods from rotating, and the workpiece mounting surface and the parallelism of the piston rods are made highly precise.

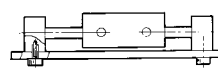
Auto switches can be installed.

Smooth operation and high thrust.

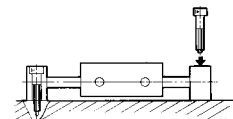
Mountable on the housing or on the plate.

The slide unit can be mounted on the housing or on the plate, depending on the application. It can also be bolted from the bottom or from the top. The piping can be fitted to the port in any of the three positions, according to how the unit is mounted.

<Affixing the plate>

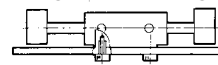


Mounting from the bottom side

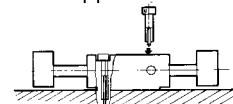


Mounting from the upper side

<Affixing the housing>



Mounting from the bottom side



Mounting from the upper side

Variations

	Bearing	Model	Bore size	Stroke (mm)								Accessory	Mounting of auto switch	Page
				25	50	75	100	125	150	175	200			
Slide unit 	Slide	Series CXWM Built-in shock absorber 	$\phi 10$	(2)								(1)		2-66
			$\phi 16$	(2)										
			$\phi 20$	(3)										
			$\phi 25$	(2)										
			$\phi 32$	(3)	(3)									
	Ball bushing	Series CXWL Built-in shock absorber 	$\phi 10$									(1)		2-91
			$\phi 16$											
			$\phi 20$											
			$\phi 25$											
			$\phi 32$	(3)										



Note 1) Only E type reed switch is applicable as an auto switch when mounting a housing of $\phi 10$.

Note 2) The shock absorbers are to be mounted on the both sides for the 25-stroke of Series CXWM10 to 25.

Note 3) The shock absorber is to be mounted on one side of the plate for the 25-stroke of Series CXWM20, CXWM32, CXWL32 and 50-stroke of Series CXWM32.

With end lock
Shock absorber
Adjusting bolt
Housing mounting
Plate mounting

⚠ Precautions

⚠ Warning

- ① **Take precautions to prevent your fingers or hands from getting caught between the plate and the housing.**
- Exercise extreme caution when the cylinder is operating, to prevent injury to your fingers or hands.

⚠ Caution

- ① **Make sure that the cylinder mounting surface is flat (a flatness of 0.05 or less {reference value}).**
If it is not flat, it could lead to a malfunction.
- ② **Make sure not to scratch or gouge the cylinder mounting surface.**
Be aware that if the flatness of the housing mounting surface or the mounting surface of the plates on both sides is affected, it could lead to a malfunction.
- ③ **Be careful not to twist the two piston rods.**
If the piston rods are twisted or bent when mounting the housing, the operating resistance could become abnormally high or the bearings could wear prematurely, leading to reduced accuracy or air leakage.
- ④ **Consider reinforcing the plates.**
When the cylinder is mounted on the housing, and the plates are used for high-speed operation or used as a pusher, use a connector plate to bridge both plates. Failure to do so could cause the snap ring to become detached or the set screws to shift, causing the plates to fall off.

⚠ Caution

Precautions for handling the end lock mechanism

- ① **Do not use a 3 position solenoid valve.**
Avoid using this cylinder in combination with a 3 position solenoid valve (particularly the closed center metal seal style). If air pressure becomes sealed inside the port of the side that contains the lock mechanism, the lock will not engage. Even if the lock is engaged at first, the air that leaks from the solenoid valve could enter the cylinder and cause the lock to disengage as time elapses.
- ② **Before starting, make sure to supply air to the retraction side to provide back pressure.**
Failure to do so could prevent the lock from disengaging. It is dangerous to supply air to the extension side when the air in the cylinder has been discharged, as the cylinder could operate suddenly.
- ③ **Disengage the lock before installing or adjusting the cylinder.**
The lock could become damaged if the cylinder is installed with its lock engaged.
- ④ **Operate the speed controller under meter-out control.**
If operated under meter-in control, the lock might not disengage.
- ⑤ **Adjust the stroke within the range of the slotted hole of the lock finger.**
As the hole for mounting the lock finger is slotted, the lock finger may be adjusted and mounted in accordance with the adjustment amount of the adjustment bolt. The adjustment amount of the adjustment bolt is $\pm 2\text{mm}$ ($\pm 1\text{mm}$ for each side).
- ⑥ **Regarding manual disengagement**
Insert a phillips screwdriver through the lock finger hole to push the lock piston down and slide it in the unlocking direction. When doing so, take precautions to prevent your fingers or hands from getting caught between the housing plate and the lock.

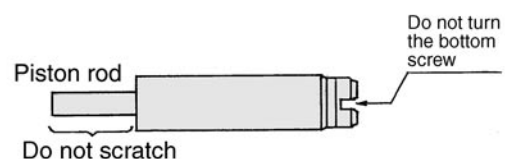
⚠ Caution

Precautions for handling the shock absorber

- ① **Do not expose the shock absorber to machining oil, water, or dust.**
The RB series cannot be used under conditions in which fluids such as machining oil or water are present in atomized form or come in direct contact with the piston rod, or in which dust could adhere to the piston rod. Such conditions would cause malfunction.
- ② **Do not operate the shock absorber in an environment that poses the risk of corrosion.**
The shock absorber could rust if used in an environment that poses the risk of corrosion. Refer to the respective construction drawing for type of material that is used in the shock absorber.
- ③ **Tighten the retaining nuts to the torque values given in the table below.**

Model of shock absorbers	RB0805	RB1006	RB1411
Applicable slide unit	CXWM $_{16}^{10}$ -25	CXWM $_{25}^{20}$ -25	CXWM32-25,50 CXWL32-25
Thread O.D. (mm)	M8 X 1.0	M10 X 1.0	M14 X 1.5
Thread prepared hole size (mm)	$\phi 7.1^{+0.1}_0$	$\phi 9.1^{+0.1}_0$	$\phi 12.7^{+0.1}_0$
Nut mounting torque Nm	1.67	3.14	10.8

- ④ **Do not scratch the sliding portion of the piston rod or the outside threads of the outer tube.**
Do not scratch or gouge the sliding portion of the piston rod or the outside threads of the outer tube by striking it with an object, squeezing it, or by forcefully wedging a set screw in it. Failure to observe this precaution could damage the seals, which could lead to oil leakage and malfunction. Furthermore, scratches or gouges on the outside threads of the outer tube could prevent the shock absorber from being mounted onto the frame, or its internal components could deform, leading to a malfunction.
- ⑤ **Never turn the screw on the bottom of the body**
(it is not an adjustment screw), as this will cause oil leakage.



- ⑥ **Make sure that the retaining nut is not loose.**
The shock absorber could become damaged if it is used in a loose state.
- ⑦ **Pay attention to any abnormal impact sounds or vibrations.**
If the impact sounds or vibrations have become abnormally high, the shock absorber may have reached the end of its service life. If this is the case, replace the shock absorber. If use is continued in this state, it could damage the equipment to which the shock absorber is mounted.

Series CX Prior to Use

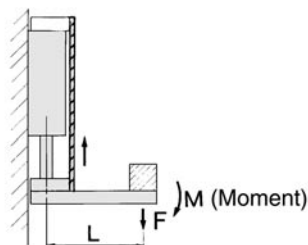
Comparison on the starting pressure by the moment (Reference data for selection a slide bearing or a ball bushing bearing)

— CXWM (Slide bearing)

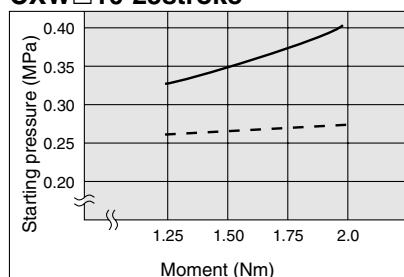
- - - CXWL (Ball bushing bearing)

Comparison on the starting pressure with the load mounted and the moment added

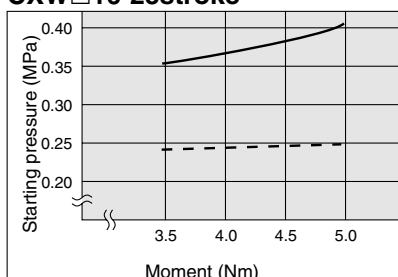
Note) The diagram below does not show the allowable moment. It compares the starting pressure of the slide bearing to that of the ball bushing when the load of the moment is applied to the bearing.



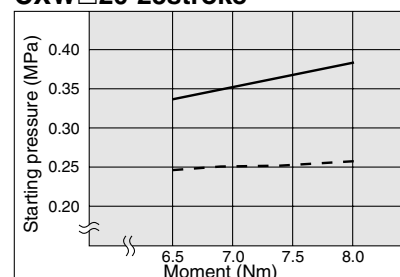
CXW□10-25stroke



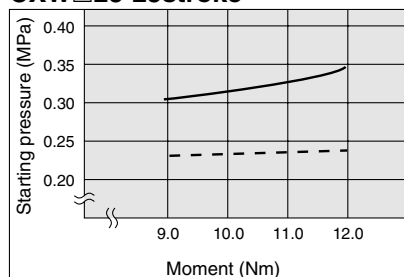
CXW□16-25stroke



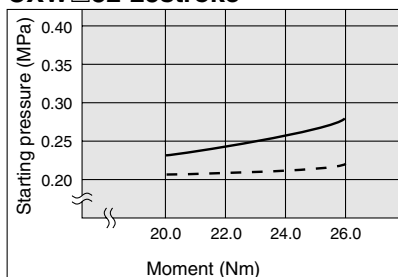
CXW□20-25stroke



CXW□25-25stroke

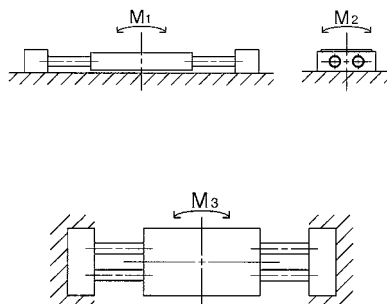
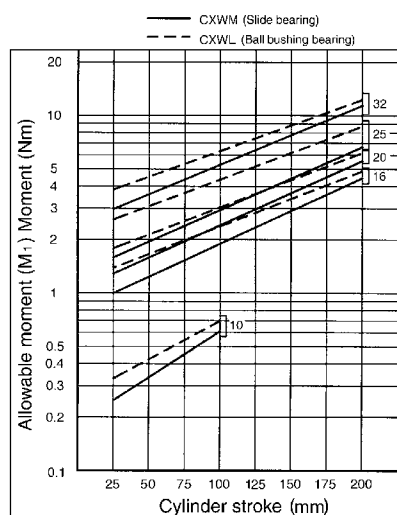


CXW□32-25stroke



Maximum allowable moment/ CXWM, CXWL

Operate within the operating range and under the allowable moment indicated in the table below.



Allowable moment (M2) (Nm)					
Bore size (mm)	ø10	ø16	ø20	ø25	ø32
CXWM	0.108	0.549	0.809	1.029	2.695
CXWL	0.108	0.549	0.809	1.201	2.695

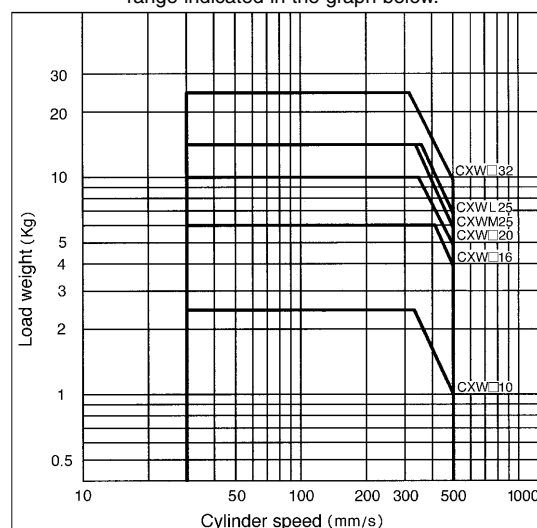
Note) M2 is steady regardless of the strokes.

Allowable kinetic energy

Operate at a load mass and cylinder speed within the range given in the diagram below. To adjust the cylinder speed, use a speed controller.

Allowable kinetic energy of the slide unit

Load weight and cylinder speed should be within the range indicated in the graph below.



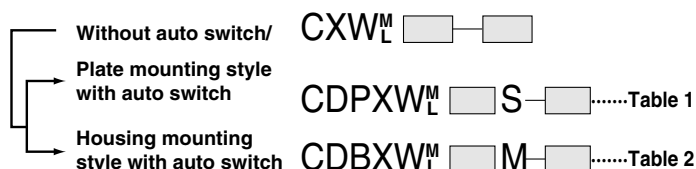
Series CX

Prior to Use

- ① Changing from the non-auto switch specification to the auto switch specification
- ② Changing mounting style of the auto switch specification

Series CXW^M

- ① In the CXW^M series, to change from the specification without auto switch to the plate mounting style with auto switch or to the housing mounting style with auto switch, refer to tables 1 and 2 before ordering.



- ② In the CXW^M series, to change from the plate mounting style with an auto switch to the housing mounting style with an auto switch or vice versa, refer to tables 1 and 2 before ordering.

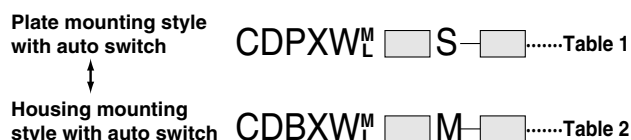


Table 1. Plate mounting style with auto switch (CDPXW^M□□-□)/Component parts for mounting switches and No. of component parts

Description	Material ⁽³⁾	ø10	ø16	ø20	ø25	ø32
		Applicable models for switch mounting				
		CDPXW ^M 10S-□	CDPXW ^M 16S-□	CDPXW ^M 20S-□	CDPXW ^M 25S-□	CDPXW ^M 32S-□
Switch mounting block	Aluminum alloy	1	1	1	1	1
Block mounting screw	Chrome steel/Nickel plated	2	2	2	2	2
Screw for mounting	Chrome steel/Nickel plated	2	2	2	2	2
Hexagon screw	Carbon steel/Nickel plated	2	2	2	2	2
Magnet	Rare earth magnet	1(2) ⁽²⁾	—	—	—	—
Socket	Brass/Electroless nickel plated	2	—	—	—	—
Plug (M-5P)	Brass/Electroless nickel plated	2	2	2	—	—

Note 1) "□" mark indicates strokes.

Note 2) In the case of ø10, the 25mm stroke has two magnets that are bonded in the holes on the side of the housing.

Those with strokes of 50mm to 100mm have one magnet. Those with other bore sizes have a built-in magnet in their housings.

Note 3) For a model of assembly for mounting switch, list CDPXWM□□-□ for Series CXWM and CDPXWL□□-□ for Series CXWL.

Table 2. Housing mounting style with auto switch (CDBXW^M□□-□)/Component parts for mounting switches and No. of component parts

Description	Material	ø10	ø16	ø20	ø25	ø32
		Applicable models for switch mounting				
		CDBXW ^M 10M-□	CDBXW ^M 16M-□	CDBXW ^M 20M-□	CDBXW ^M 25M-□	CDBXW ^M 32M-□
Magnet mounting block ass'y	Aluminum alloy	1	1	1	1	1
Switch mounting rail	Aluminum alloy	—	1	1	1	1
Interface	Mounting block mounting screw	2	—	—	—	—
Block mounting screw	Chrome steel/Nickel plated	2	2	2	2	2
Screw for mounting rail	Chrome steel/Nickel plated	—	2	2	2	2
Screw for mounting switch	Chrome steel/Nickel plated	2	2	2	2	2
Hexagon screw	Carbon steel/Nickel plated	2	2	2	2	2
Hexagon head cap plug	Chrome steel/Nickel plated	2	2	2	—	—

Note 1) "□" mark indicates strokes.

Note 2) In case of ø10, CDPXW^M10□ can NOT be changed to CDBXW^M10-□.

(CXW^M10-□ can be changed to CDBXW^M10-□)

Note 3) For models of assembly for mounting switch, list CDBXWM□□-□ for Series CXWM and CDBXWL□□-□ for Series CXWL.

Slide Unit/Built-in Shock Absorber

Series CXWM

Slide Bearing/ø10, ø16, ø20, ø25, ø32

How to Order

Standard

CXWM 16 150

With Auto Switch

C DB XWM 16 150 A73

Cylinder with auto switch

Symbol	Specifications/Mounting
DB	With auto switch/ Housing mounting
DP	With auto switch/ Plate mounting

Bearing

M	Slide bearing
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Cylinder bore size/Stroke (mm)

ø10	(25), 50, 75, 100
ø16	(25), 50, 75, 100, 125, 150, 175, 200
ø20	(25), 50, 75, 100, 125, 150, 175, 200
ø25	(25), 50, 75, 100, 125, 150, 175, 200
ø32	(25), (50), 75, 100, 125, 150, 175, 200

Number of auto switches

—	2
S	1
n	n

Auto switch

—	None
---	------

* Refer to the table below for the part numbers for auto switches.

End lock

R	With end lock
—	None



Note 1) For the strokes indicated in the parentheses of the ø10, ø16 and ø25, shock absorbers are to be mounted on both sides of the plate. For the strokes indicated in the parentheses of the ø20 and ø32, a shock absorber is to be mounted on single side of the plate.

Note 2) Refer to p.2-67 for the strokes other than those indicated above.

Note 3) For ø16, ø20 and ø25, strokes up to 300, and for ø32, strokes up to 250 are available as made to order. (-XB11)

Applicable Auto Switches

Style	Special function	Electrical entry	Indication	Wiring (Output)	Load voltage		Auto switch model		Bore size		Wire length (m)*				Applicable load	
					DC	AC	Electrical entry		Housing mounting	Plate mounting	0.5 (—)	3 (L)	5 (Z)	— (N)		
Reed switch	—	Grommet	Yes	3 wires	—	5V	—	A76H	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	●	●	—	—	IC	Relay PLC
				—	—	200V	A72	A72H			●	●	—	—	—	
			No	2 wires	24V	12V	A73	A73H			●	●	●	—	—	
				—	—	100V or less	A80	A80H			●	●	—	—	IC	
		Connector	No	2 wires	—	12V	A73C	—			●	●	●	●	—	
				—	—	24V or less	A80C	—			●	●	●	●	—	
		Grommet	Yes	3 wires	—	5V	—	E76A	ø10	—	●	●	—	—	—	
				—	—	100V	—	E73A			●	●	—	—	—	
			No	2 wires	24V	12V	—	E80A			●	●	—	—	—	
				—	—	5V, 12V	100V or less	—			●	●	—	—	—	
Solid state switch	Diagnoses indication (2 colour) Water resistant (2 colour) With timer With diagnoses output (2 colour)	Grommet	Yes	3 wires (NPN)	24V	5V, 12V	—	F7NV	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	●	●	○	—	IC	Relay PLC
				3 wires (PNP)				F7PV			●	●	○	—	—	
				2 wires				F7BV			●	●	○	—	—	
				—				J79C			●	●	●	●	—	
		Connector	Yes	3 wires (NPN)	24V	5V, 12V	—	F7NWX			●	●	○	—	IC	
				3 wires (PNP)				—			●	●	○	—	—	
				2 wires				F7BWV			●	●	○	—	—	
				—				—			—	●	○	—	—	
		Grommet	No	3 wires (NPN)	24V	5V, 12V	—	F7NT			—	●	○	—	—	
				3 wires (PNP)				—			●	●	○	—	—	
				2 wires				F79F			●	●	○	—	—	
				4 wires (NPN)				F7LF**			●	●	○	—	—	

* Symbols for wire lengths 0.5m — 3m L Ex.) A80C Ex.) A80CL 5m Z Ex.) A80CZ Ex.) A80CN — N Ex.) A80CN

* The solid state switches marked with "○" are produced after orders are received. ** D-F7LF type is not mountable to Series CDPXW.

Slide Unit/Slide Bearing: Built-in Shock Absorber *Series CXWM*

Built-in shock absorber

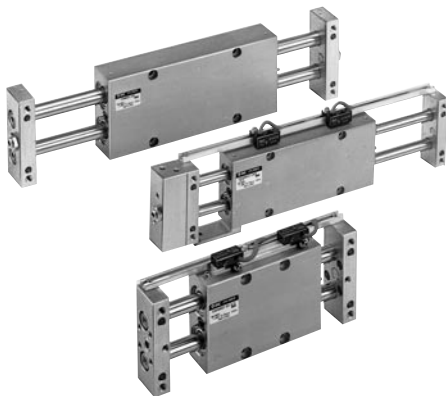
This is a built-in shock absorber style in which the shock absorber is enclosed in the housing. Compared to the CX2 series with shock absorber, this style achieves space savings in the longitudinal direction (except for the 25mm stroke).

Dramatically reduced installation labour

The machining precision required for positioning during the installation of the cylinder has been reduced through the adoption of a special pin hole machining process, thus decreasing the amount of labour involved in adjustment.

Provided with an end lock mechanism

An end lock is also available, which maintains the cylinder's original position even if the air supply is interrupted.



Specifications

Style	Non-lube	
Fluid	Air	
Proof pressure	1.5MPa	
Max. operating pressure	1.0MPa	
Min. operating pressure	CXWM10, 16	0.15MPa
	CXWM20, 25, 32	0.1MPa
Ambient and fluid temperature	-10°C to 60°C (No freezing)	
Piston speed (Non lubricating)	30 to 500mm/s	
Cushion	Shock absorber	
Stroke adjustable range	Standard stroke ±2mm	
Accessory (Option)	Straight knock pin (2 pcs.), Adjusting bolt* (-X138)	

* "-X138" has a stroke adjustable range of 12.5mm on one side.

Max. Movable Load/Non-rotating Accuracy/Max. Holding Force

Model	CXWM10	CXWM16	CXWM20	CXWM25	CXWM32
Max. movable weight*	1kg	4kg	5kg	6kg	10kg
Non-rotating accuracy (Deflection of a piston rod is not included.)	±0.09°	±0.03°	±0.03°	±0.02°	±0.01°
Max. holding force (End lock model)	39.2N	98.1N	147.1N	245.2N	392.3N

* Place the centre of gravity of the load and centre of the slide unit close during operation. If they are placed far apart each other, consult SMC.

Shock Absorber Specifications

Shock absorber ⁽¹⁾		RB0805-X552	RB0805	RB1006-X552	RB1006	RB1411-X552	RB1411
Applicable slide unit		CXWM10, 16-□□		CXWM20, 25-□□		CXWM32-□□	
Max. absorbed energy		0.98		3.92		14.7	
Absorbed stroke (mm)		5		6		11	
Max. collision speed (m/sec)		0.05 to 5					
Max. operating frequency (cycle/min) ⁽²⁾		80		70		45	
Max. allowable thrust (N)		147		353		667	
Ambient temperature (°C)		-10 to 80					
Spring force (N)	Expanded	1.96		4.22		6.86	
	Compressed	3.83		6.18		15.30	
Weight (g)		15		25		65	



Note 1) "-X552" is an exclusive shock absorber installed in the housing, and is the screw not attached specification of the outer part of the outer tube. The shock absorber plate mounting style of 25 and 50 strokes are have the screw attached specification.

Note 2) Maximum absorbed energy per one cycle. The operating frequency can be increased in compliance with the amount of absorbed energy.

Theoretical Force

(N)

Model	Rod size (mm)	Piston area (mm ²)	Operating pressure (MPa)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
CXWM10-□□	6	101	20	30	40	51	61	71	81	91
CXWM16-□□	10	245	49	74	98	123	147	172	196	221
CXWM20-□□	12	402	80	121	161	201	241	281	322	362
CXWM25-□□	14	597	119	179	239	299	358	418	478	537
CXWM32-□□	20	980	196	294	392	490	588	686	784	882

Note) Theoretical force (N)=Pressure (MPa) X Piston area (mm²)

Standard Strokes

Model	Standard stroke (mm)							
	25	50	75	100	125	150	175	200
CXWM10-□□	(1) (*)	●	●	●	—	—	—	—
CXWM16-□□	(1) (*)	●	●	●	●	●	●	●
CXWM20-□□	(2) (*)	●	●	●	●	●	●	●
CXWM25-□□	(1) (*)	●	●	●	●	●	●	●
CXWM32-□□	(2) (*)	(2) (*)	●	●	●	●	●	●



Note 1) The strokes marked with "(*)" has an absorber of double sides plate mounting style.

Note 2) The strokes marked with "(*)" has an absorber of single side plate mounting style.

Series CXWM

Weight

(kg)

Model	Stroke (mm)							
	25	50	75	100	125	150	175	200
CXWM10	0.28	0.35	0.42	0.49	—	—	—	—
CXWM16	0.46	0.59	0.72	0.85	0.98	1.11	1.24	1.37
CXWM20	0.69	0.87	1.03	1.22	1.40	1.58	1.75	1.93
CXWM25	0.95	1.17	1.38	1.60	1.82	2.03	2.31	2.47
CXWM32	2.01	2.38	2.77	3.16	3.56	3.94	4.34	4.72

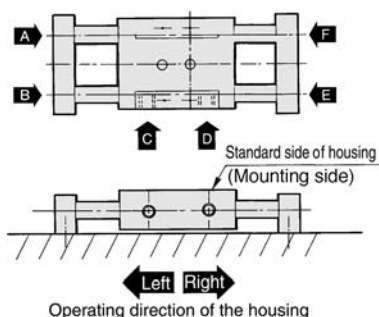
Additional Weight for End Lock Model (CXWM□-□R)

(kg)

Applicable model	Additional weight
CXWM10	0.08
CXWM16	0.14
CXWM20	0.15
CXWM25	0.20
CXWM32	0.43

Operating direction per pressurized port

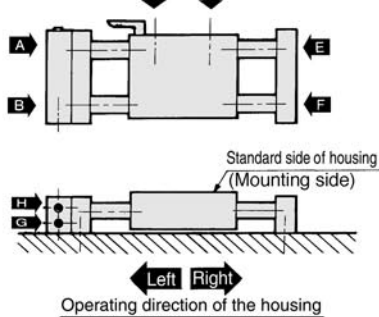
Operating direction of the housing when the plate part is fixed



Pressurized port	A	B	C	D	E	F
Operating direction	Right	Left	Left	Right	Left	Right

* There are 9 possible reciprocating piping methods.

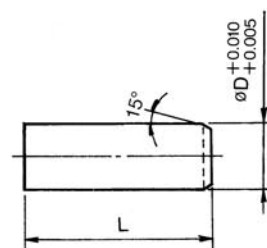
With end lock (CXWM□-□R)
Operating direction of the housing when the plate part is fixed



Pressurized port	A	B	C	D	E	F	G	H
Operating direction	Right	Left	Left	Right	Right	Left	Left	Right

* There are 16 possible reciprocating piping methods.

Accessory (Option) Straight knock pin



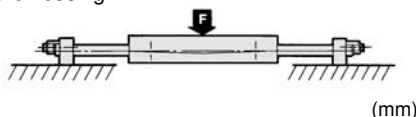
(mm)

Model	L	øD	Model*
CXWM10	10	4	MS4-10
CXWM16	10	5	MS5-10
CXWM20	15	6	MS6-15
CXWM25	15	6	MS6-15
CXWM32	20	8	MS8-20

* Manufactured by Sansumi Trading Ltd.

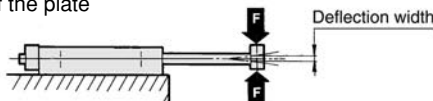
Deflection of the piston rod by center loading (Reference)

When centre loading is applied to the middle of the housing



Model	Stroke	100	200
	Load (N)		
CXWM10	9.81	0.07	—
CXWM16	39.2	0.05	0.20
CXWM20	49	0.04	0.15
CXWM25	58.8	0.02	0.08
CXWM32	98.1	0.02	0.07

When centre loading is applied to the middle of the plate

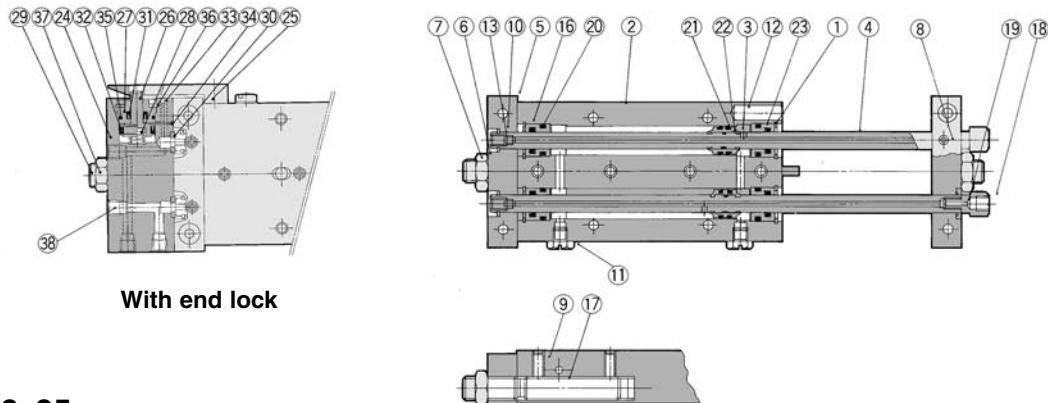


Model	Stroke			
	Load (N)			
CXWM10	2.94	0.06	0.30	—
CXWM16	4.90	0.03	0.10	0.45
CXWM20	7.84	0.03	0.09	0.35
CXWM25	9.81	0.03	0.09	0.25
CXWM32	29.42	0.02	0.05	0.15

Note) The factors are the total widths of deflections in the vertical direction.

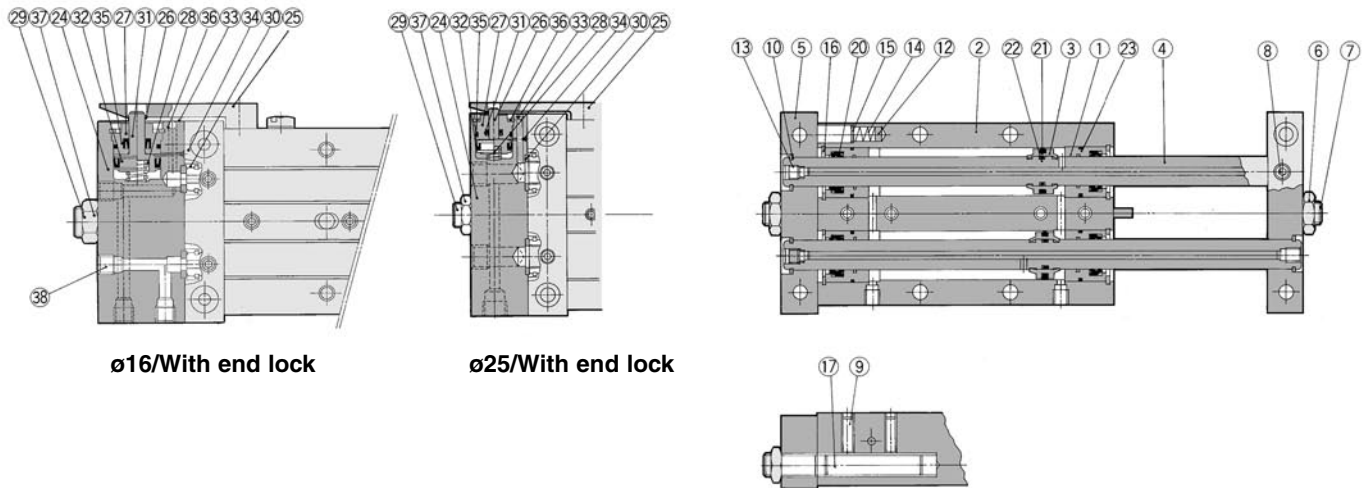
Construction: $\varnothing 10$, $\varnothing 16$, $\varnothing 25$

CXWM10



With end lock

CXWM16, 25



$\varnothing 16$ /With end lock

$\varnothing 25$ /With end lock

Component Parts

No.	Description	Material	Notes
①	Rod cover	Aluminum bearing alloy	
②	Housing	Aluminum alloy	Hard anodized
③	Piston	Aluminum alloy	Chromated
④	Piston rod	Carbon steel piping for machine constructions	Hard chrome plated
⑤	Plate	Aluminum alloy	Hard anodized
⑥	Lock nut	Carbon steel	Nickel plated
⑦	Adjusting bolt	Chrome steel	Nickel plated
⑧	Set screw (For fixing rods)	Chrome steel	Nickel plated
⑨	Set screw (For fixing shock absorbers)	Stainless steel	
⑩	Set ring	Carbon tool steel	Nickel plated
⑪	Plug	Brass	Nickel plated
⑫	Magnet	Rare earth magnet	$\varnothing 5$
⑬	Set screw for seal	Chrome steel	Nickel plated
⑭	Spring	Stainless steel	
⑮	CR set ring	Carbon tool steel	
⑯	Round R set ring	Carbon tool steel	Nickel plated
⑰	Shock absorber	—	(RB0805-X552 or RB1006-X552)
⑱	Socket	Brass	Electroless nickel plated
⑲	Gasket	NBR	
⑳	Rod seal	NBR	
㉑	Piston seal	NBR	
㉒	Piston gasket	NBR	
㉓	Cylinder tube gasket	NBR	

Component Parts/With end lock

No.	Description	Material	Notes
㉔	Body for locking	Aluminum alloy	Hard anodized
㉕	Lock finger	Alloy tool steel	Nickel plated after quenched
㉖	Lock piston	Carbon tool steel	Nickel plated after quenched
㉗	Rod cover	Aluminum alloy	
㉘	Return spring	Spring steel	Zinc chromated
㉙	Adjusting bolt	Chrome steel	Nickel plated
㉚	Body gasket	NBR	
㉛	Rod seal	NBR	
㉜	Piston seal	NBR	
㉝	Steel ball	High carbon chrome bearing steel	
㉞	Steel ball	High carbon chrome bearing steel	
㉟	O ring	NBR	
㊱	Round R set ring	Carbon tool steel	Nickel plated
㊲	Lock nut	Carbon steel	Nickel plated
㊳	Plug	Chrome steel	Nickel plated

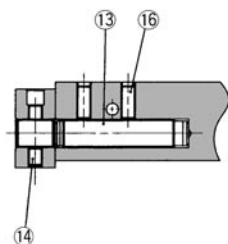
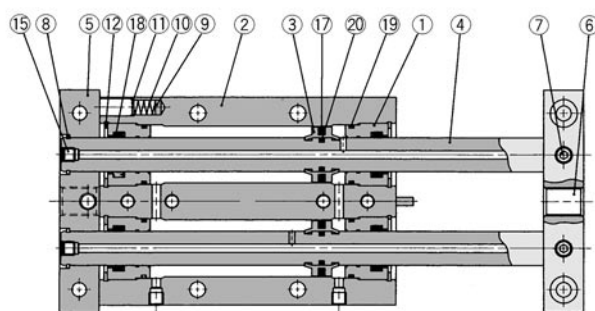
Replacement Parts: Seal kits

Model	Kit No.	Contents
CXWM10	CXWM10-PS	A rod seal ㉔, a piston seal ㉕ and a cylinder tube gasket ㉖ are included in one set.
CXWM16	CXWM16-PS	
CXWM25	CXWM25-PS	

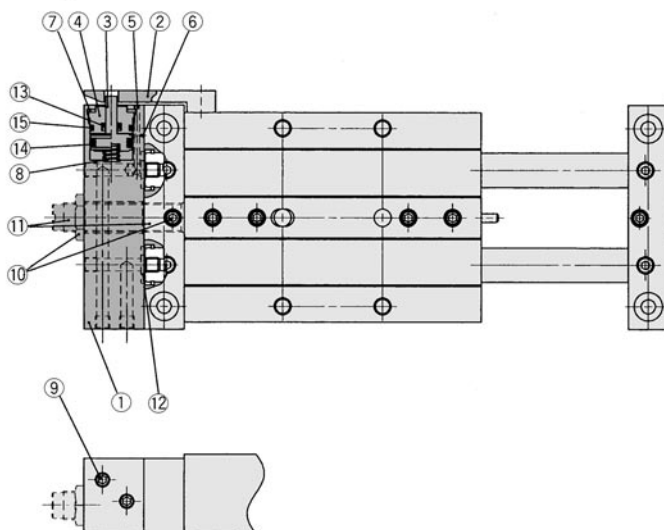
* The seal kit includes a rod seal ㉔, a piston seal ㉕ and a cylinder tube gasket ㉖.
List the order numbers in compliance with the respective models.
(The piston gasket is not replaceable.)

Series CXWM

Construction: Ø20, Ø32



With end lock



Component Parts

No.	Description	Material	Notes
①	Rod cover	Aluminum bearing alloy	—
②	Housing	Aluminum alloy	Hard anodized
③	Piston	Aluminum alloy	Chromated
④	Piston rod	Carbon steel for machines	Hard chrome plated
⑤	Plate	Aluminum alloy	Hard anodized
⑥	Adjusting bolt	Chrome steel	Nickel plated
⑦	Hex. socket head cap screw	Chrome steel	Nickel plated
⑧	Set ring	Tool steel	Nickel plated
⑨	Magnet	Rare earth	
⑩	Spring	Stainless steel	
⑪	CR set ring	Carbon tool steel	
⑫	Round R set ring	Carbon tool steel	Nickel plated
⑬	Shock absorber	—	RB1006-X552, RB1411-X552
⑭	Hex. socket head cap screw	Chrome steel	Nickel plated
⑮	Hex. socket head cap plug	Chrome steel	Nickel plated
⑯	Hex. socket head cap screw	Chrome steel	Nickel plated
⑰	Piston seal	NBR	
⑱	Rod seal	NBR	
⑲	Cylinder tube gasket	NBR	
⑳	Piston gasket	NBR	

Replacement Parts: Seal kits

Model	Part No.	Contents
CXWM20	CXWM20-PS	A piston seal ⑰, a rod seal ⑱ and a cylinder tube gasket ⑲ are included in one set.
CXWM32	CXWM32-PS	

* The seal kit includes a piston seal ⑰, a rod seal ⑱ and a cylinder tube gasket ⑲.

List the order numbers in compliance with the respective models.

(The piston gasket is not replaceable.)

Component Parts

No.	Description		Material	Notes
①	Body for locking		Aluminum alloy	Hard anodized
②	Lock finger		Alloy tool steel	Nickel plated after quenched
③	Lock piston		Tool steel	Nickel plated after quenched
④	Rod cover		Aluminum bearing alloy	
⑤	Steel ball		High carbon chrome bearing steel	
⑥	Steel ball		High carbon chrome bearing steel	
⑦	Round R type set ring		Carbon tool steel	Nickel plated
⑧	Return spring		Spring steel	Zinc chromated
⑨	Plug		Chrome steel	Nickel plated
⑩	(50), 75 to (200) strokes	Hex. screw	Chrome steel	Nickel plated
	(25), 50 strokes	Hex. nut	Carbon steel	Nickel plated
⑪	(50), 75 to (200) strokes	Adjusting bolt	Chrome steel	Nickel plated
	(25), 50 strokes	Shock absorber	—	RB1006 or RB1411
⑫	Body gasket		NBR	
⑬	Rod seal		NBR	
⑭	Piston seal		NBR	
⑮	O ring		NBR	

Note 1) The strokes indicated in the parentheses are of CXWM20, and CXWM32 includes the strokes indicated in the parentheses.

Replacement Parts: Seal kits

Model	Kit No.	Contents
CXWM20	CXWM20R-PS	A body gasket ⑫, a rod seal ⑬, a piston seal ⑭ and an O ring ⑮ are included in one set.
CXWM32	CXWM32R-PS	

* The seal kit includes a body gasket ⑫, a rod seal ⑬, a piston seal ⑭ and an O ring ⑮.

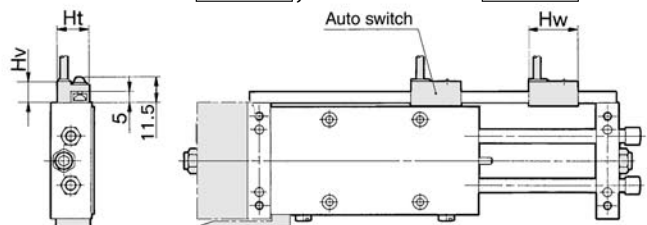
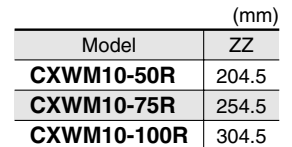
List the order numbers in compliance with the respective models



	(mm)							
Model	F	L	P	Q	S	SS	Z	ZZ
CXWM10-50	26	63	40	154	52	92	144	181.5
CXWM10-75	26	88	65	204	77	117	194	231.5
CXWM10-100	26	113	90	254	102	142	244	281.5

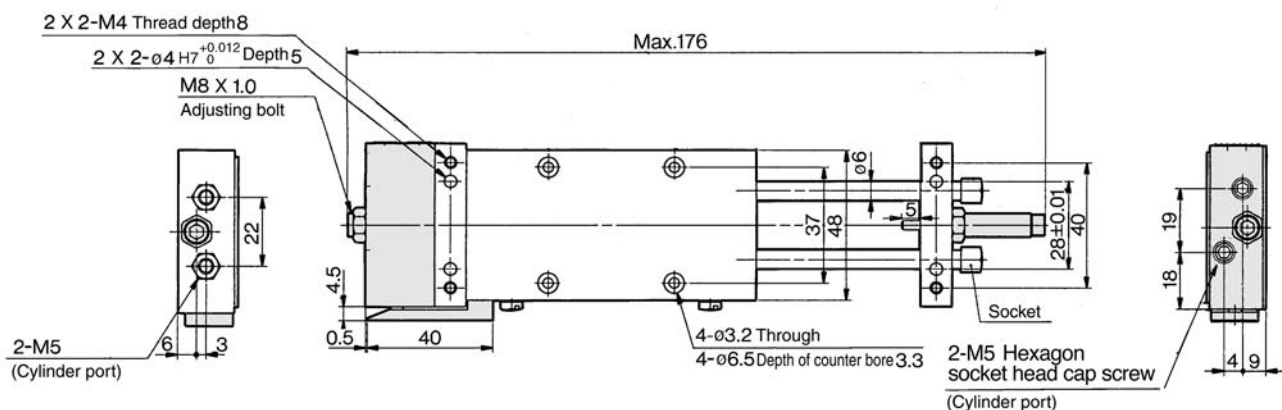
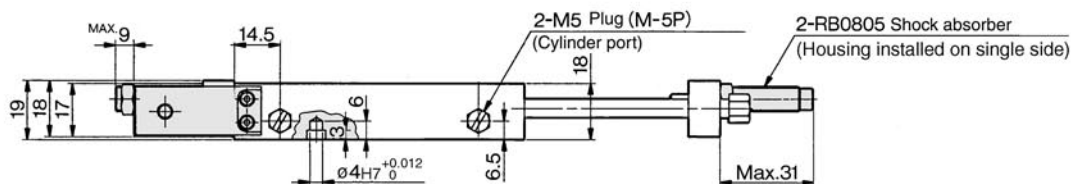
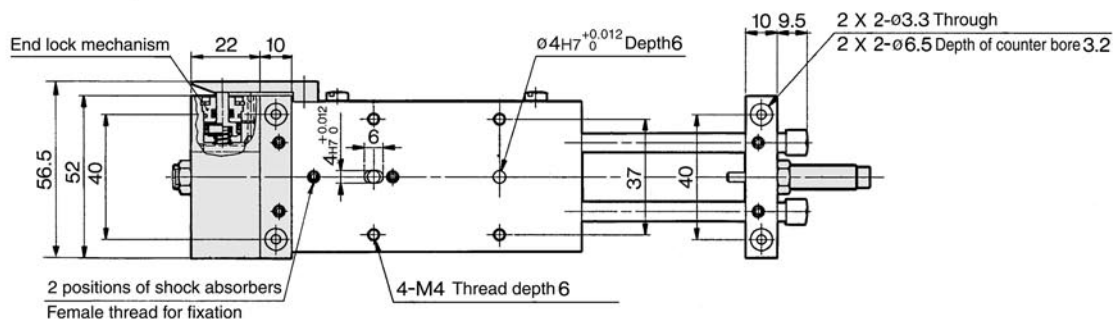
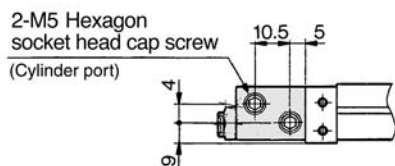
ø10 Basic Style: CXWM10- **25 Stroke**





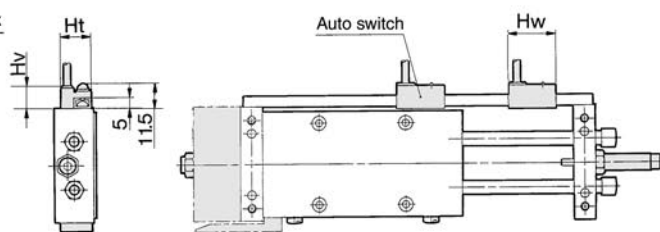
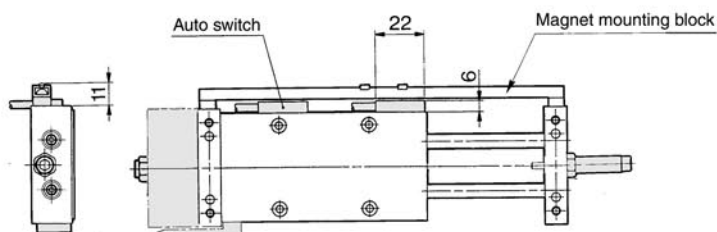
Series CXWM

ø10 With End Lock: CXWM10- 25 Stroke R



Housing mounting style with auto switch
CDBXWM10-25, CDBXWM10-25R

Plate mounting style with auto switch
CDPXWM10-2, CDPXWM10-25R



Note 1) The dimensions show D-E7□A and D-E80A.

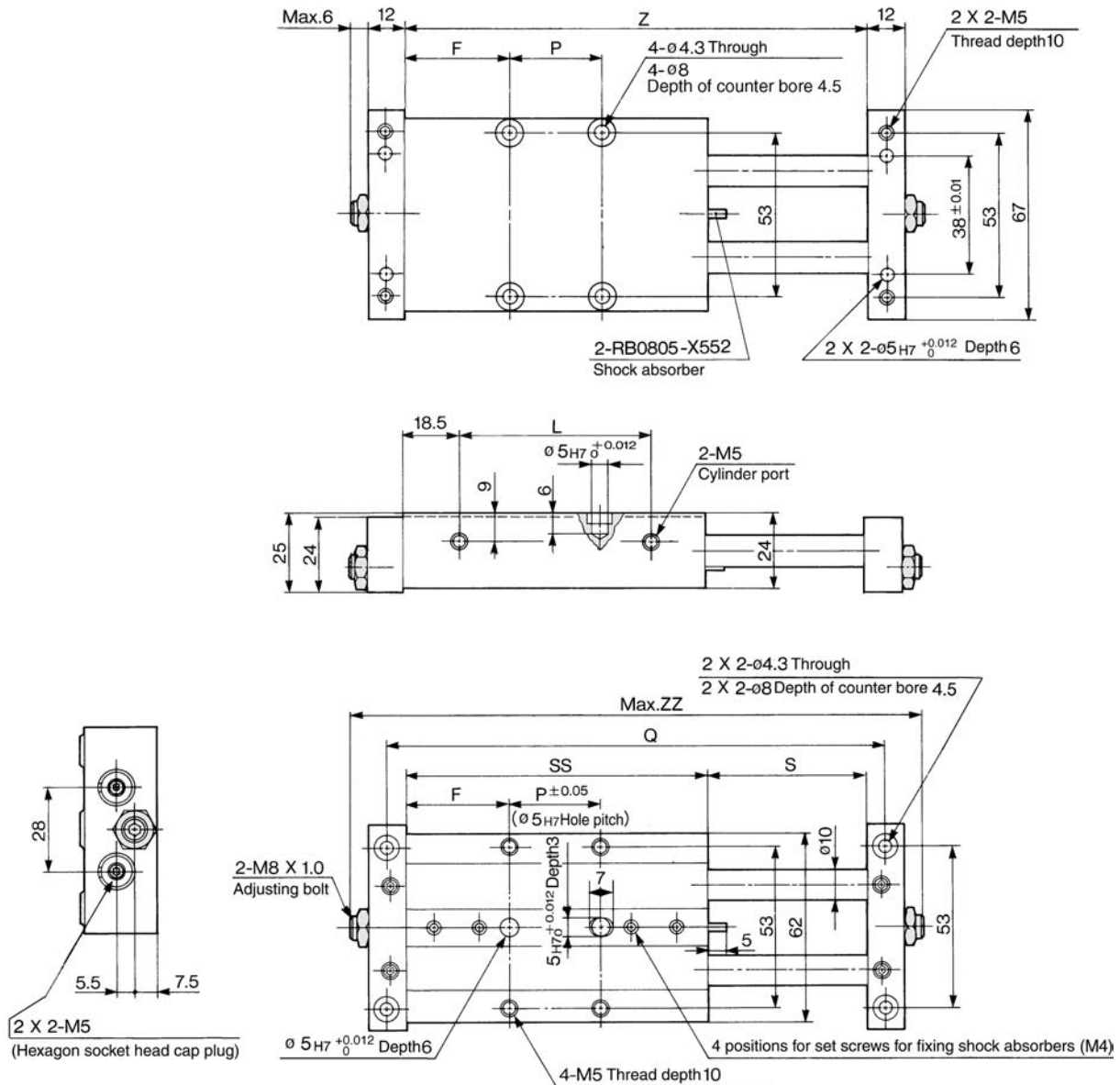
Note 2) 2 pieces of magnets for auto switches are equipped to the magnet mounting block

Note 1) The dimensions show D-A7 and D-A8. (mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) 2 magnets for auto switches are installed in the housing.

ø16 Basic Style: CXWM16- Stroke/50 to 200

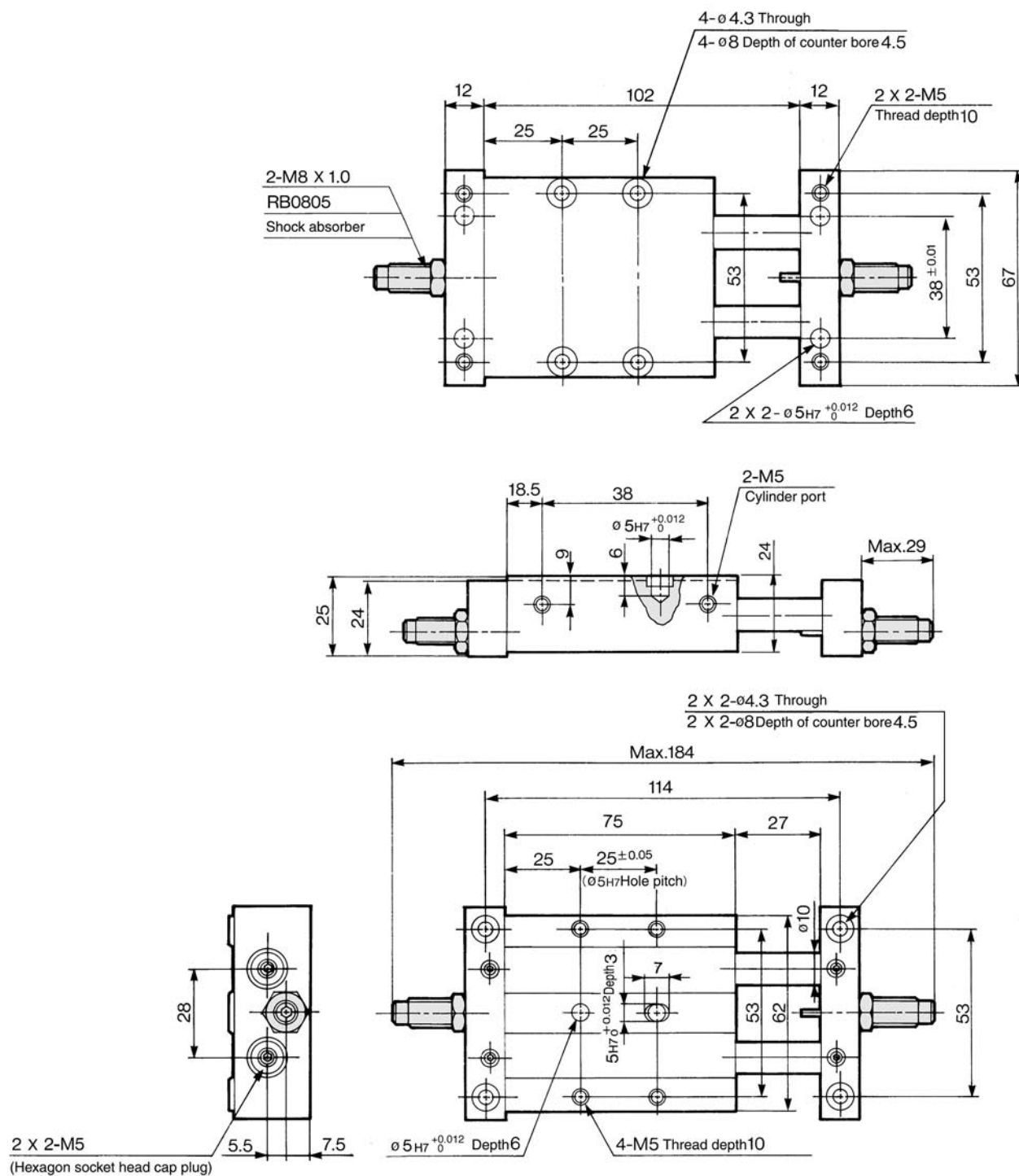


Note) For 25 stroke, the shock absorber is mounted on a plate.
Refer to p.2-76 for the dimensions of the 25 stroke.

Model	F	L	P	Q	S	SS	Z	ZZ
CXWM16-50	35	63	30	164	52	100	152	188
CXWM16-75	32.5	88	60	214	77	125	202	238
CXWM16-100	37.5	113	75	264	102	150	252	288
CXWM16-125	42.5	138	90	314	127	175	302	338
CXWM16-150	55	163	90	364	152	200	352	388
CXWM16-175	67.5	188	90	414	177	225	402	438
CXWM16-200	80	213	90	464	202	250	452	488

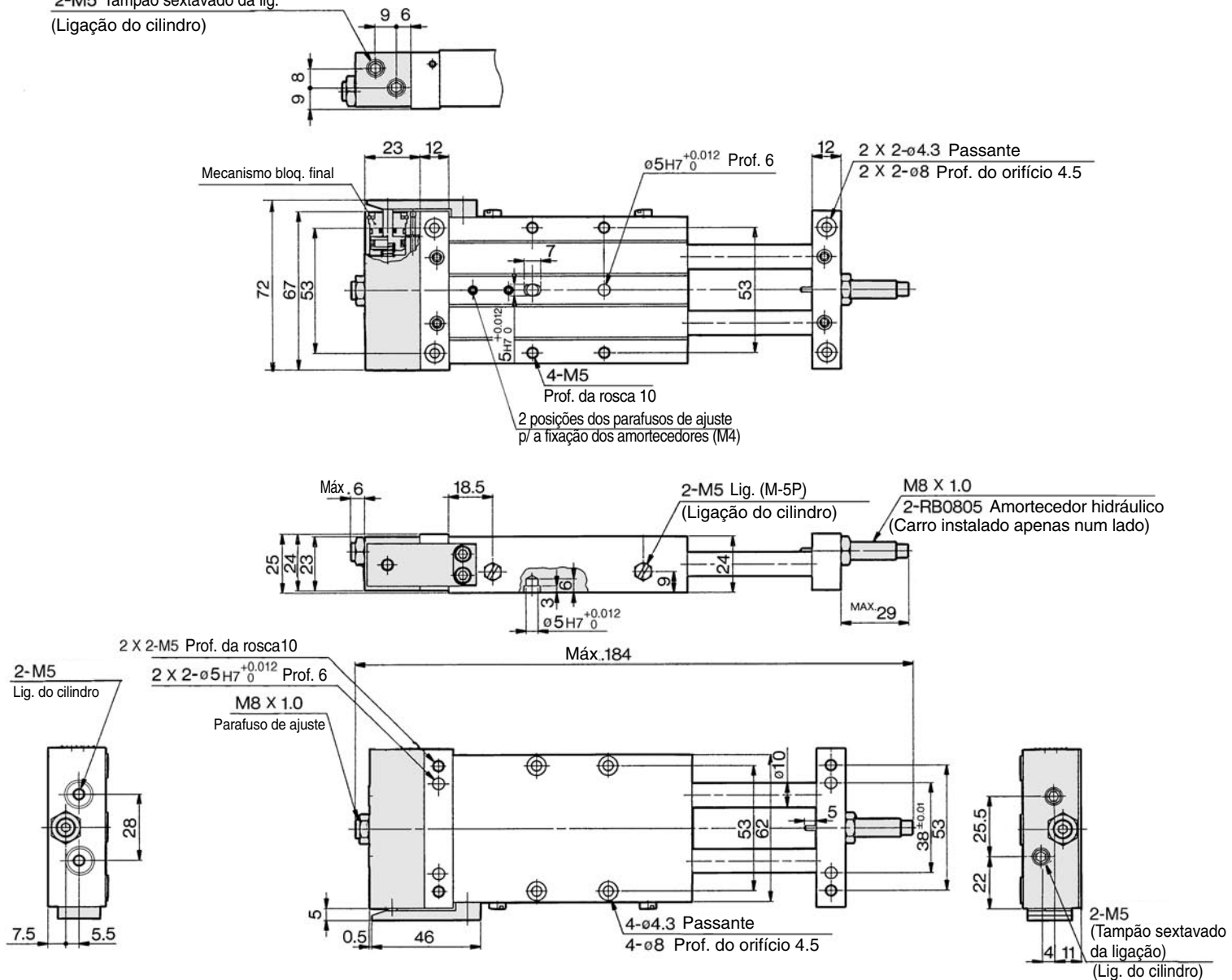
Series CXWM

ø16 Basic Style: CXWM16- 25 Stroke



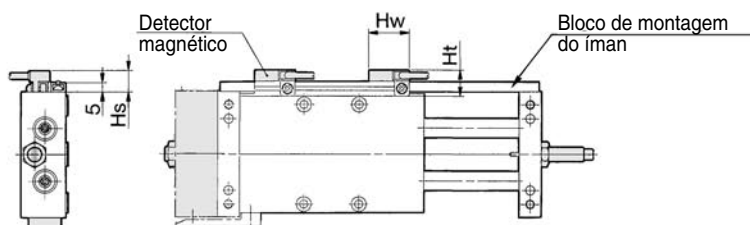
ø16 With End Lock: CXWM16-25 Stroke R

2-M5 Tampão sextavado da lig.
(Ligação do cilindro)



Housing mounting style with auto switch
CDBXWM16-25, CDBXWM16-25R

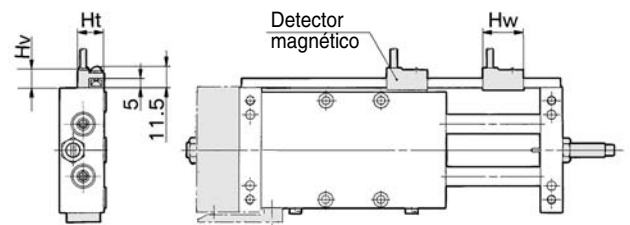
Plate mounting style with auto switch
CDPXWM16-25, CDPXWM16-25R



Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	12.5	15
D-A7□H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5
D-F7LF	30	12.5	15

Note 2) 2 magnets for auto switches are equipped to the magnet mounting block.

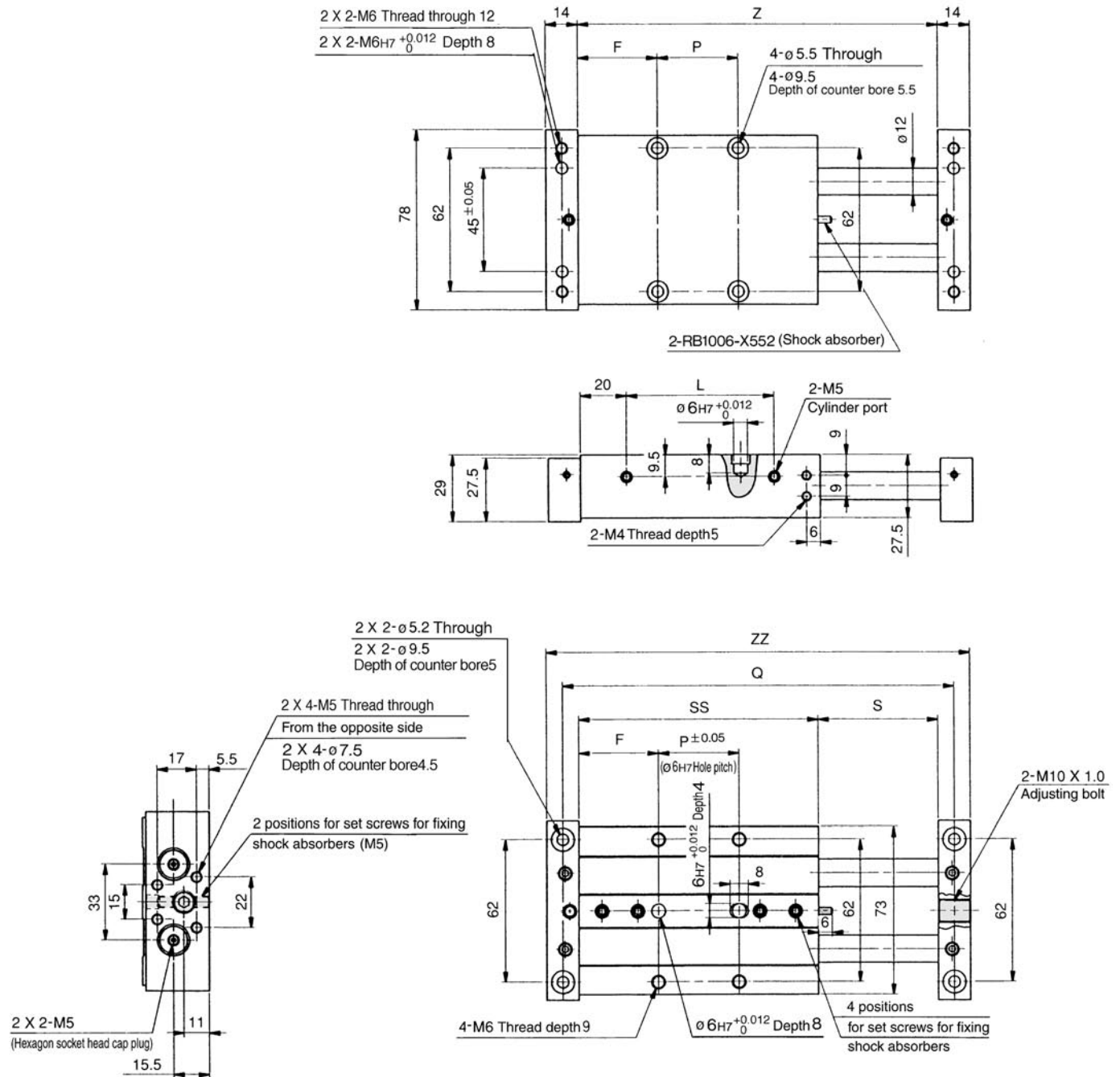


Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) 2 magnets for auto switches are installed in the housing.

ø20 Basic Style: CXWM20- Stroke/50 to 200



(mm)

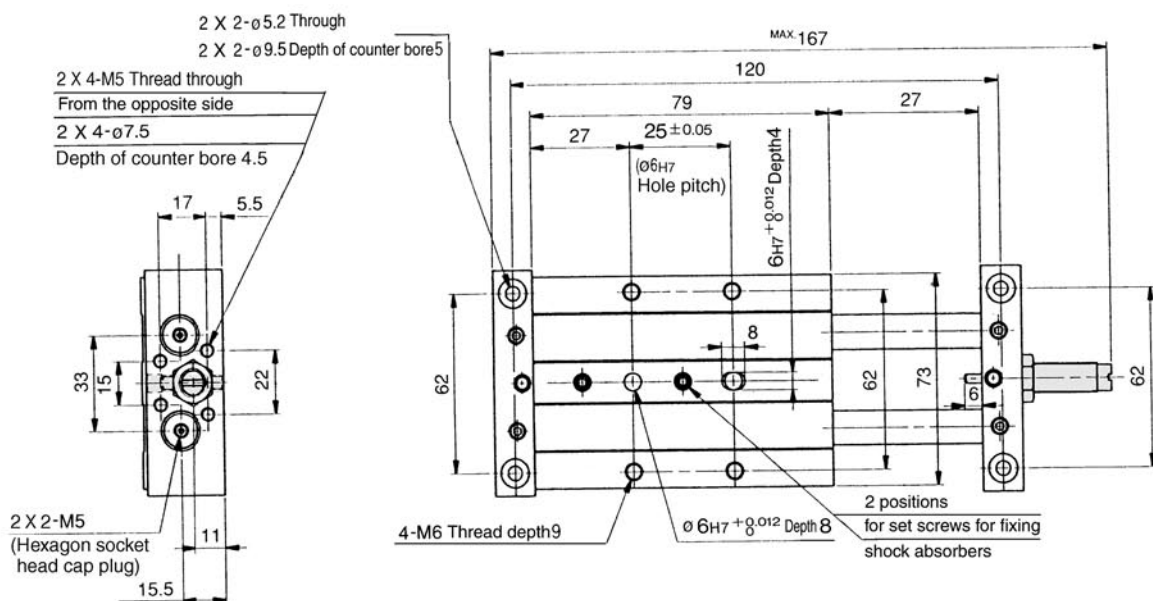
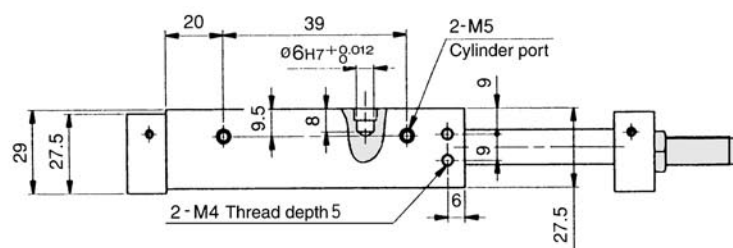
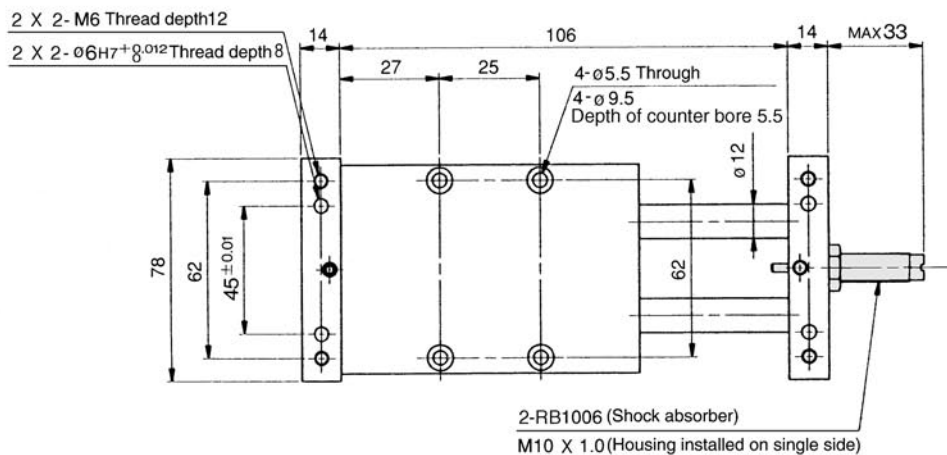
Model	F	L	P	Q	S	SS	Z	ZZ
CXWM20-50	34.5	64	35	170	52	104	156	184
CXWM20-75	34.5	89	60	220	77	129	206	234
CXWM20-100	39.5	114	75	270	102	154	256	284
CXWM20-125	44.5	139	90	320	127	179	306	334
CXWM20-150	57	164	90	370	152	204	356	384
CXWM20-175	69.5	189	90	420	177	229	406	434
CXWM20-200	82	214	90	470	202	254	456	484



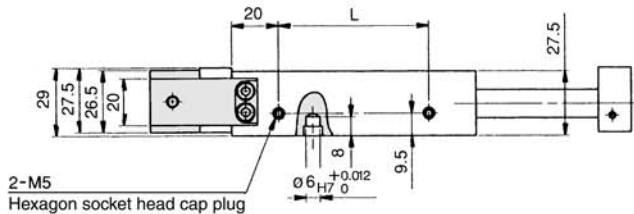
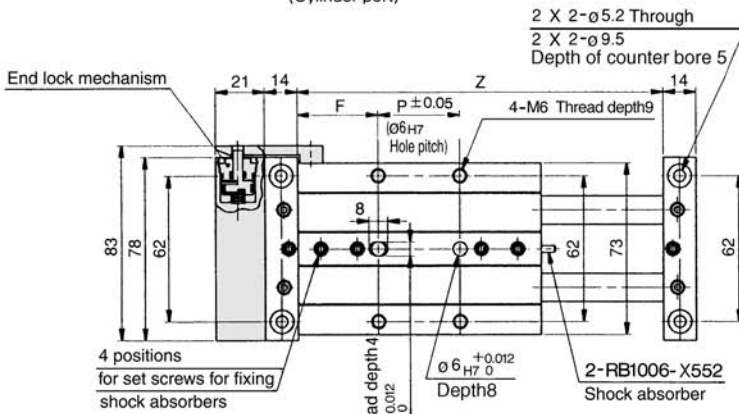
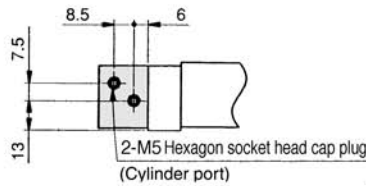
Note) For 25 stroke, the shock absorber is mounted on a single side of the plate. Refer to p.2-80 for the dimensions of the 25 stroke.

Series CXWM

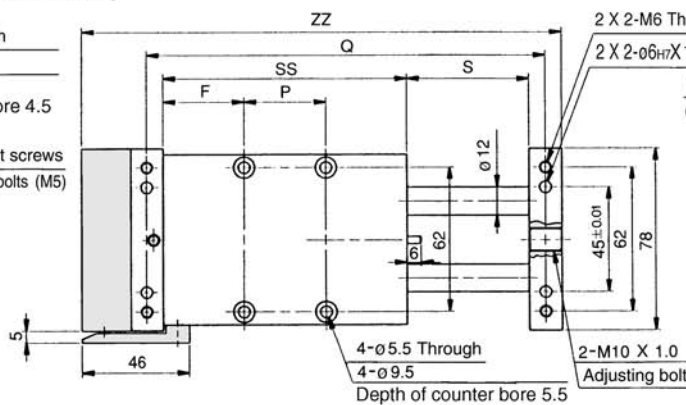
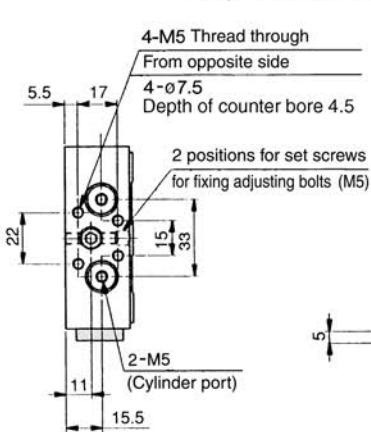
ø20 Basic Style: CXWM20- 25 Stroke



ø20 With End Lock: CXWM20- Stroke/50 to 200 R

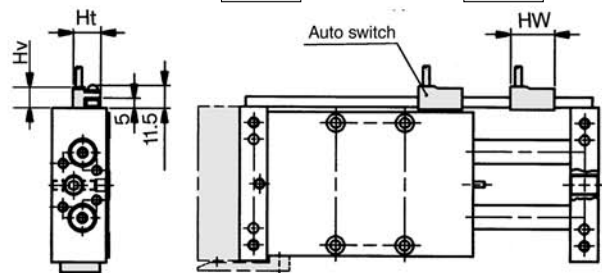
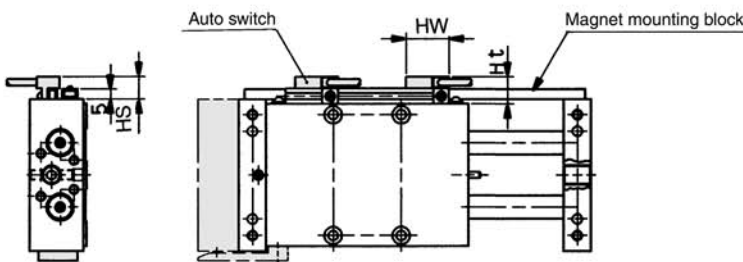


Model	F	L	P	Q	S	SS	Z
CXWM20-50R	34.5	64	35	170	52	104	156
CXWM20-75R	34.5	89	60	220	77	129	206
CXWM20-100R	39.5	114	75	270	102	154	256
CXWM20-125R	44.5	139	90	320	127	179	306
CXWM20-150R	57	164	90	370	152	204	356
CXWM20-175R	69.5	189	90	420	177	229	406
CXWM20-200R	82	214	90	470	202	254	456



Housing mounting style with auto switch
CDBXWM20- Stroke , CDBXWM20- Stroke R

Plate mounting style with auto switch
CDPXWM20- Stroke , CDPXWM20- Stroke R



Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	12.5	15
D-A7□H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5

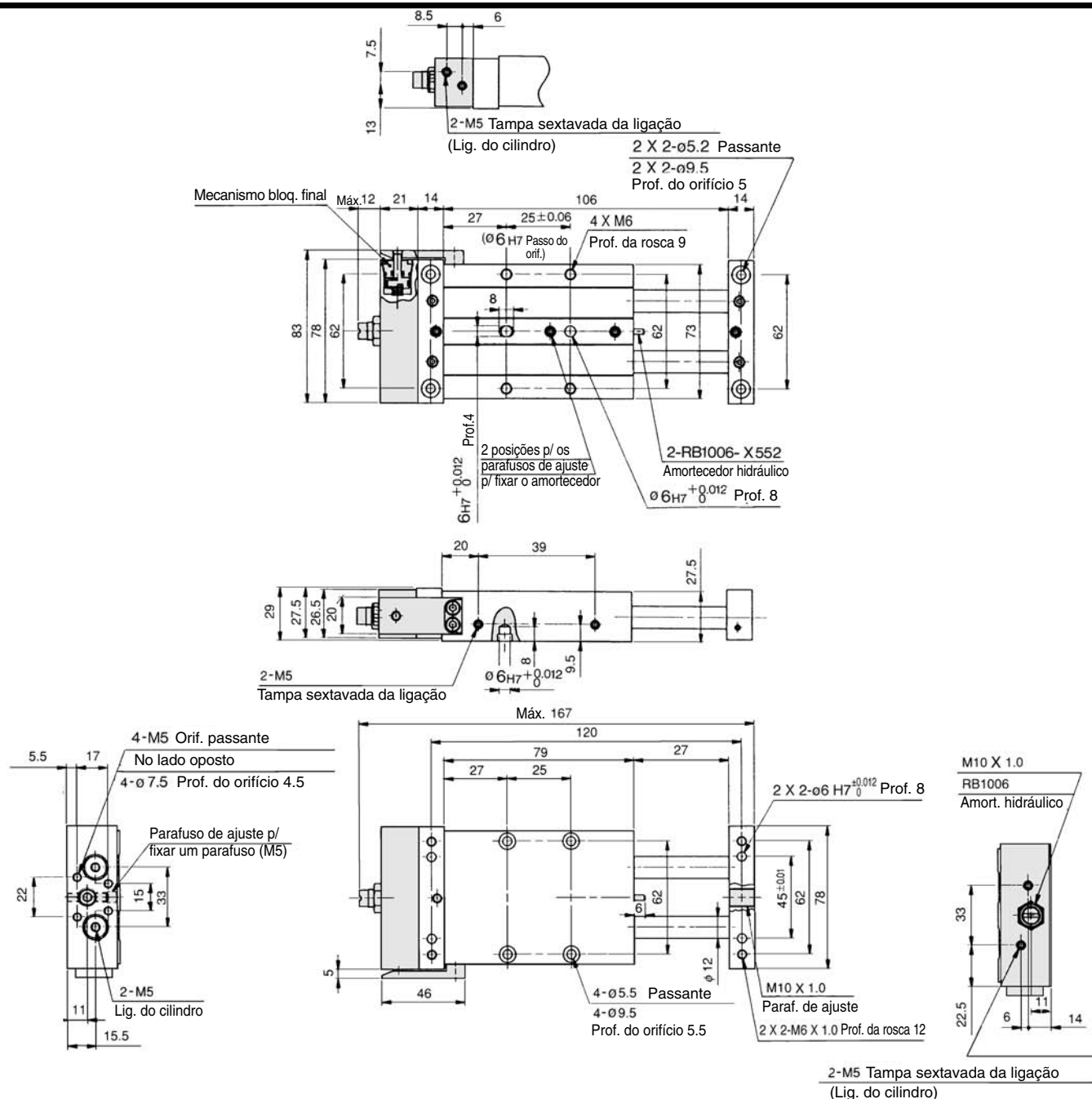
Note 2) For 25 stroke, the shock absorber is mounted on a single side of the plate. Refer to p.2-82 for the dimensions of the 25 stroke.

Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) For 25 stroke, the shock absorber is mounted on a single side of the plate. Refer to p.2-82 for the dimensions of the 25 stroke.

Ø20 With End Lock: CXWM20-25 Stroke R



Housing mounting style with auto switch
CDBXWM20-25, CDBXWM20-25R

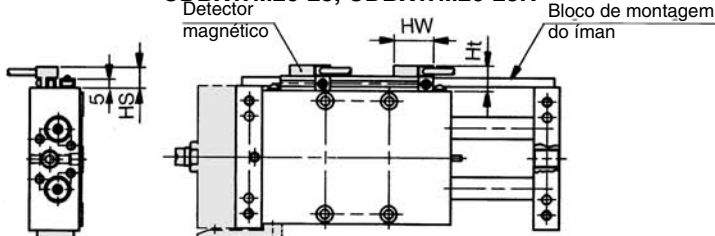
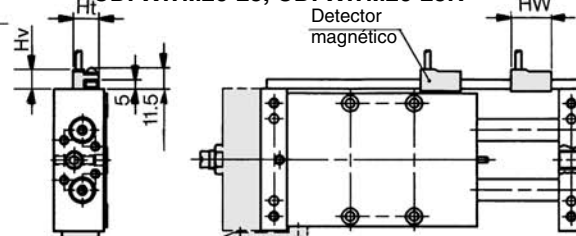


Plate mounting style with auto switch
CDPXWM20-25, CDPXWM20-25R



Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	12.5	15
D-A7□H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5

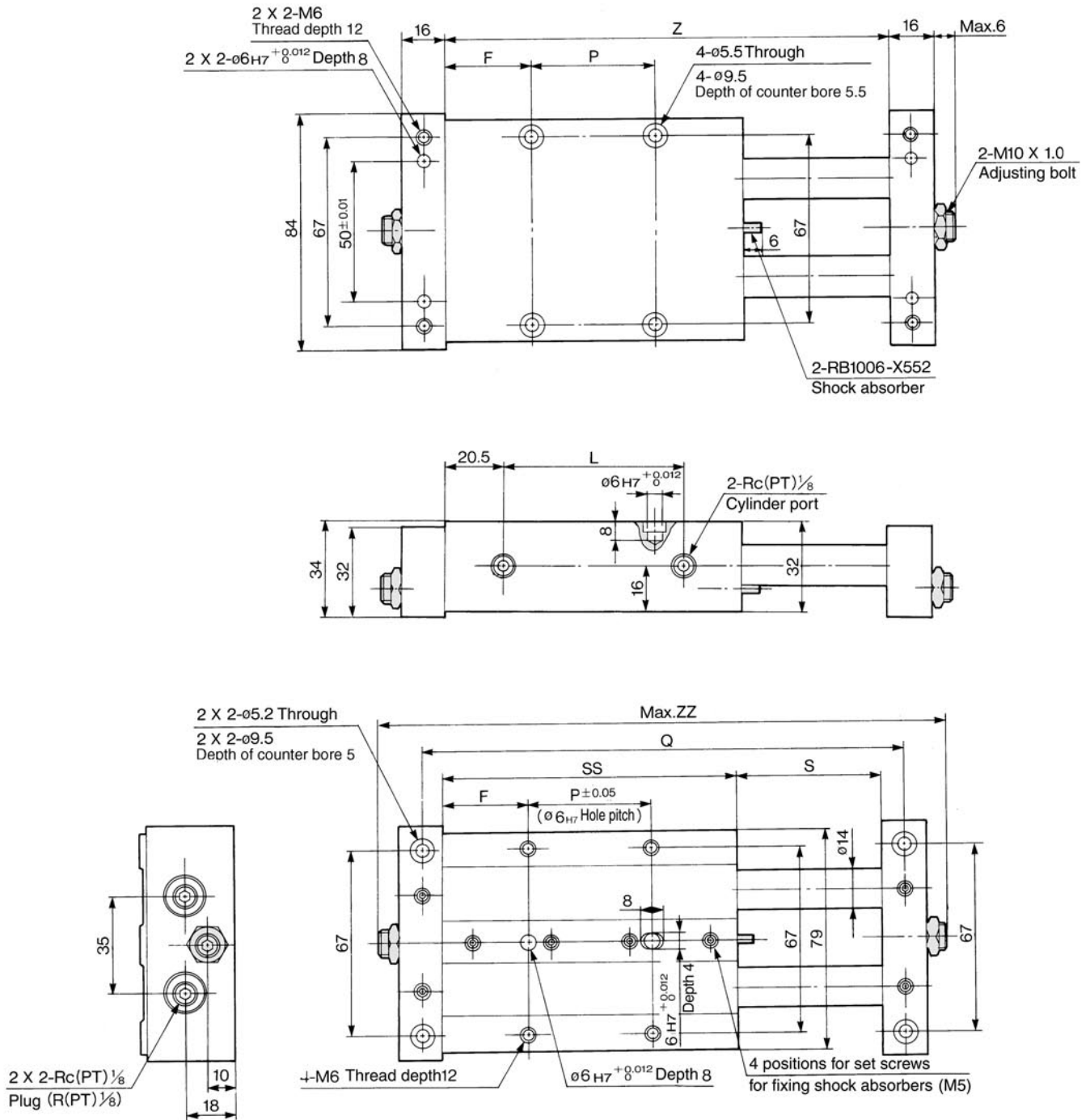
Note 2) 2 magnets for auto switches are equipped to the magnet mounting block.

Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F78A, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) 2 magnets for auto switches are equipped to the housing mounting block.

ø25 Basic Style: CXWM25- Stroke/50 to 200

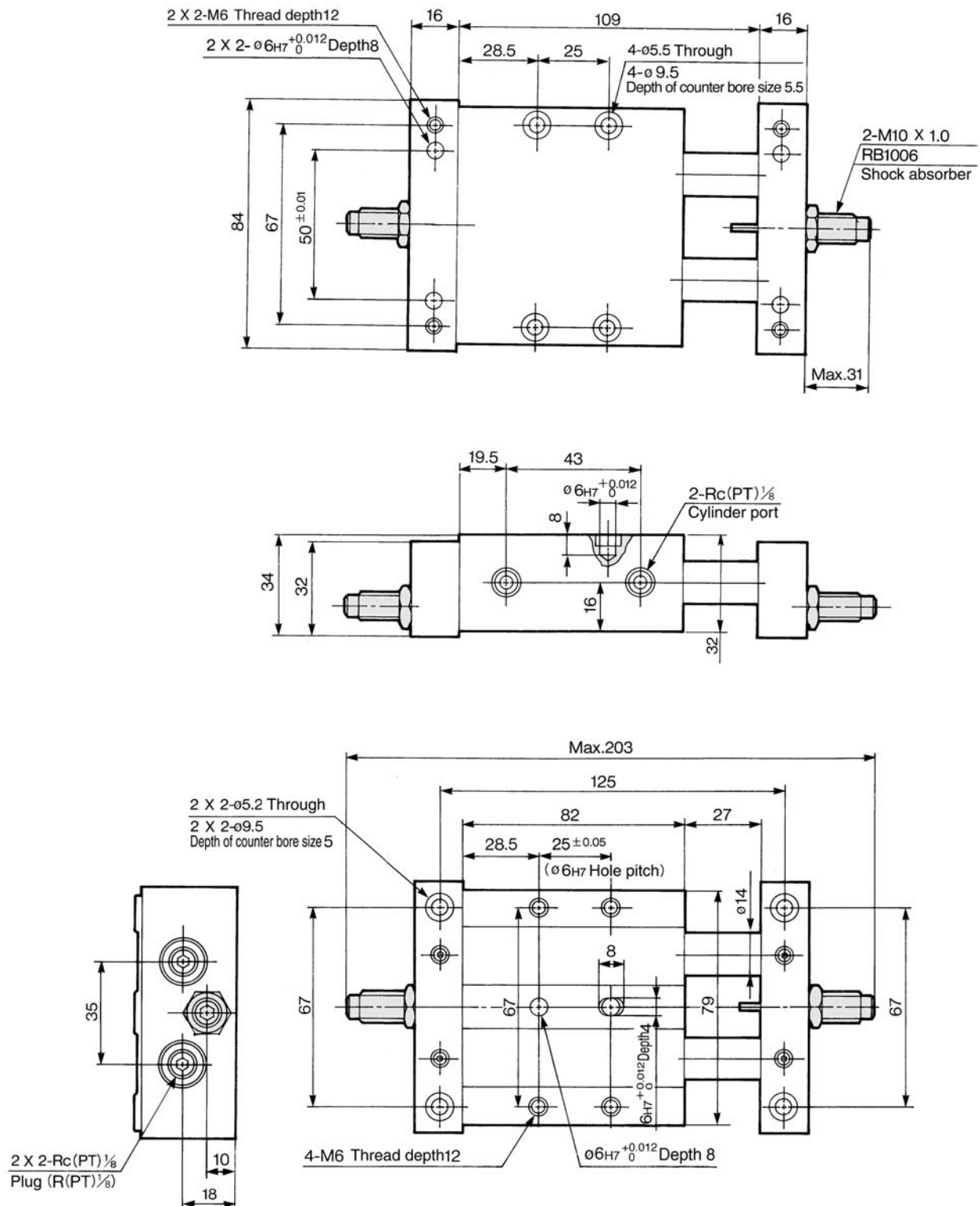


Note) For 25 stroke, the shock absorber is mounted on a plate.
Refer to p.2-84 for the dimensions of the 25 stroke.

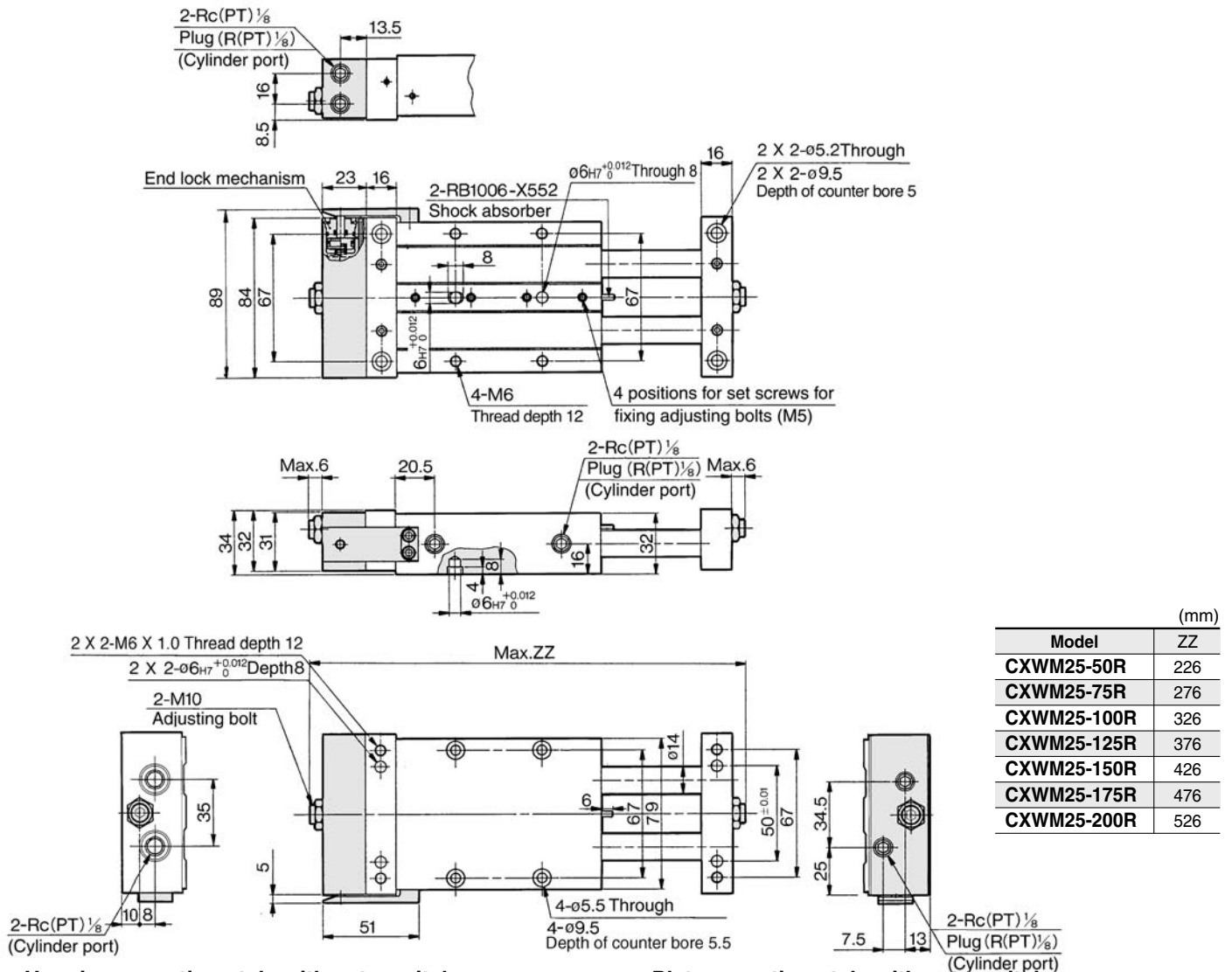
Model	F	L	P	Q	S	SS	Z	ZZ
CXWM25-50	31	66	45	175	52	107	159	203
CXWM25-75	33.5	91	65	225	77	132	209	253
CXWM25-100	33.5	116	90	275	102	157	259	303
CXWM25-125	46	141	90	325	127	182	309	353
CXWM25-150	58.5	166	90	375	152	207	359	403
CXWM25-175	71	191	90	425	177	232	409	453
CXWM25-200	83.5	216	90	475	202	257	459	503

Series CXWM

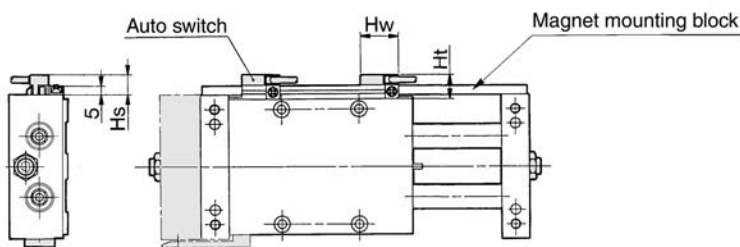
Ø25 Basic Style: CXWM25-25 Stroke



ø25 With End Lock: CXWM25- Stroke/50 to 200 R



Housing mounting style with auto switch
CDBXWM25- Stroke , CDBXWM25- Stroke R

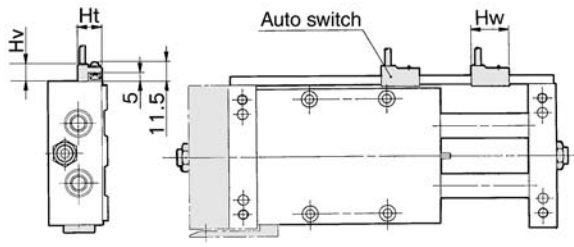


Note 1) The dimensions show D-7A and D-8A. (mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	12.5	15
D-A7□H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5

Note 2) For 25 stroke, the shock absorber is mounted on a single side of the plate. Refer to p.2-86 for the dimensions of the 25 stroke.

Plate mounting style with auto switch
CDPXWM25- Stroke , CDPXWM25- Stroke R

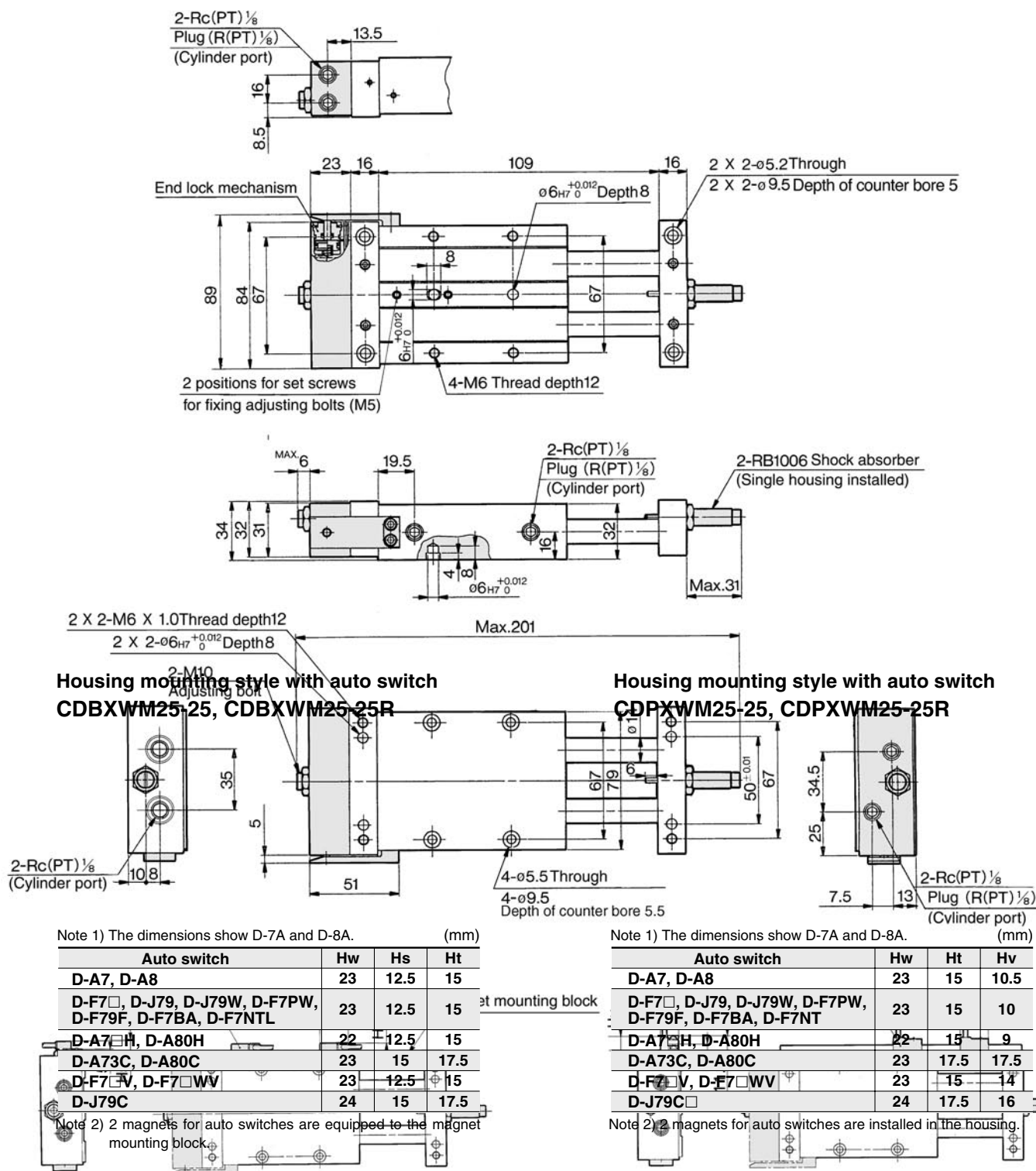


Note 1) The dimensions show D-7A and D-8A. (mm)

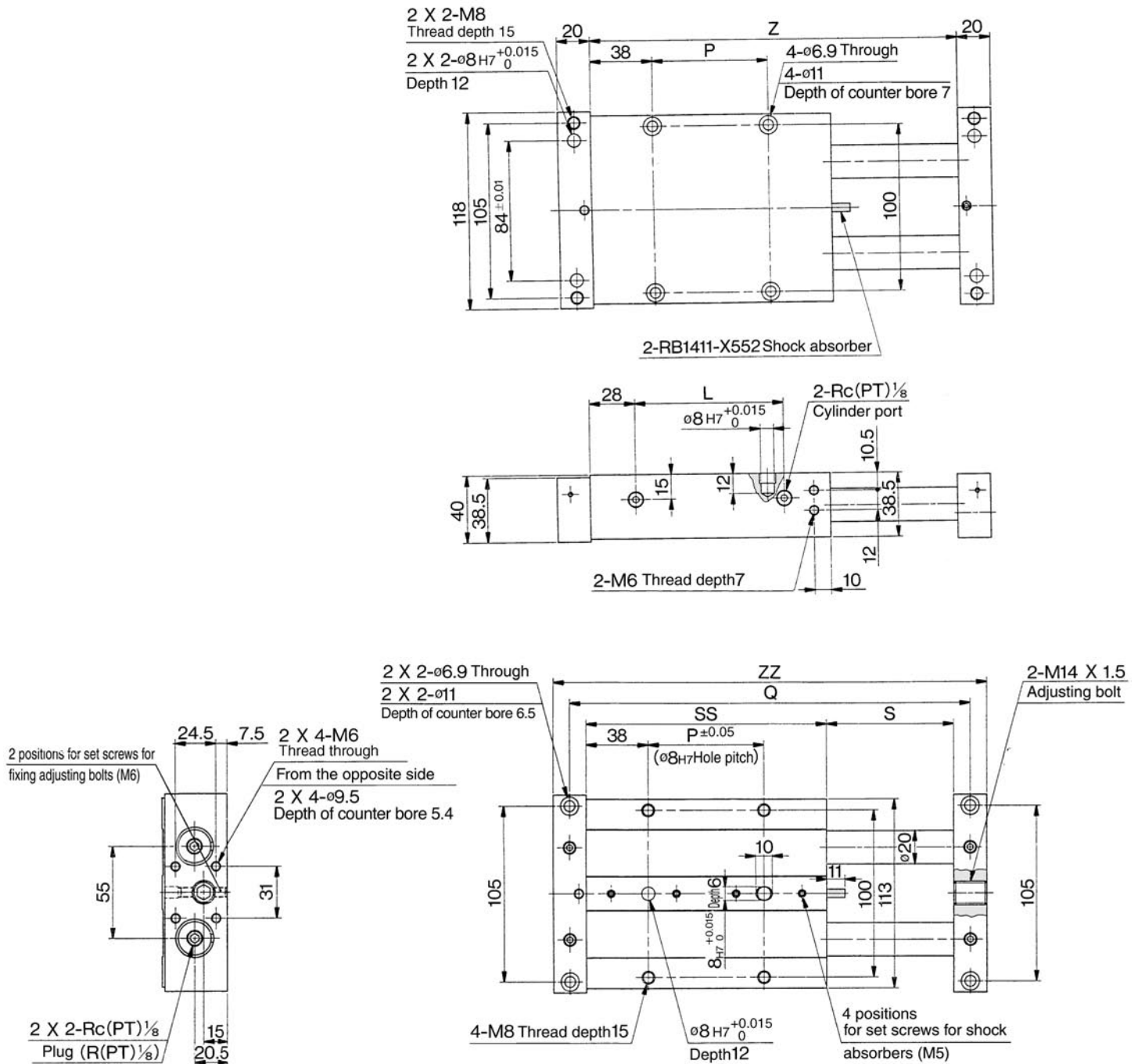
Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) For 25 stroke, the shock absorber is mounted on a single side of the plate. Refer to p.2-86 for the dimensions of the 25 stroke.

ø25 With End Lock: CXWM25- 25 Stroke R



ø32 Basic Style: CXWM32- Stroke/70 to 200

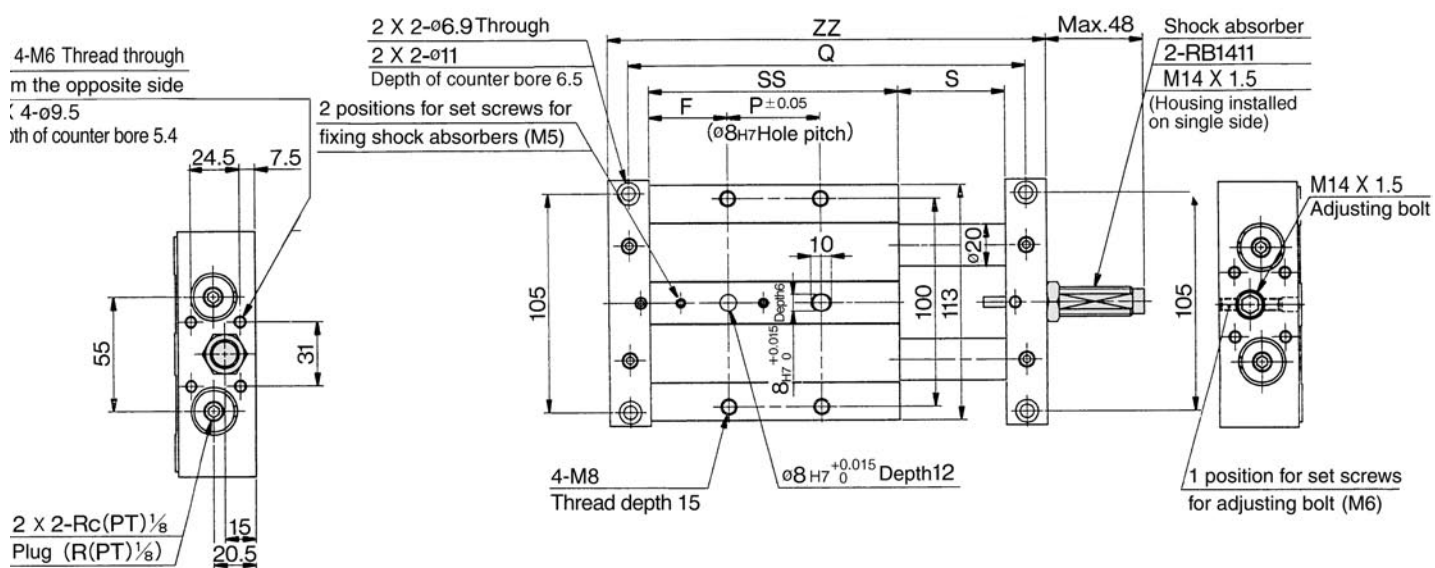


(mm)

Model	L	P	Q	S	SS	Z	ZZ
CXWM32-75	90	70	243	77	146	223	263
CXWM32-100	115	95	293	102	171	273	313
CXWM32-125	140	120	343	127	196	323	363
CXWM32-150	165	145	393	152	221	373	413
CXWM32-175	190	170	443	177	246	423	463
CXWM32-200	215	195	493	202	271	473	513

Note) For 25 and 50 strokes, the shock absorber is mounted on a single side of the plate.
Refer to p 2-88 for the dimensions of the 25 and 50 strokes.

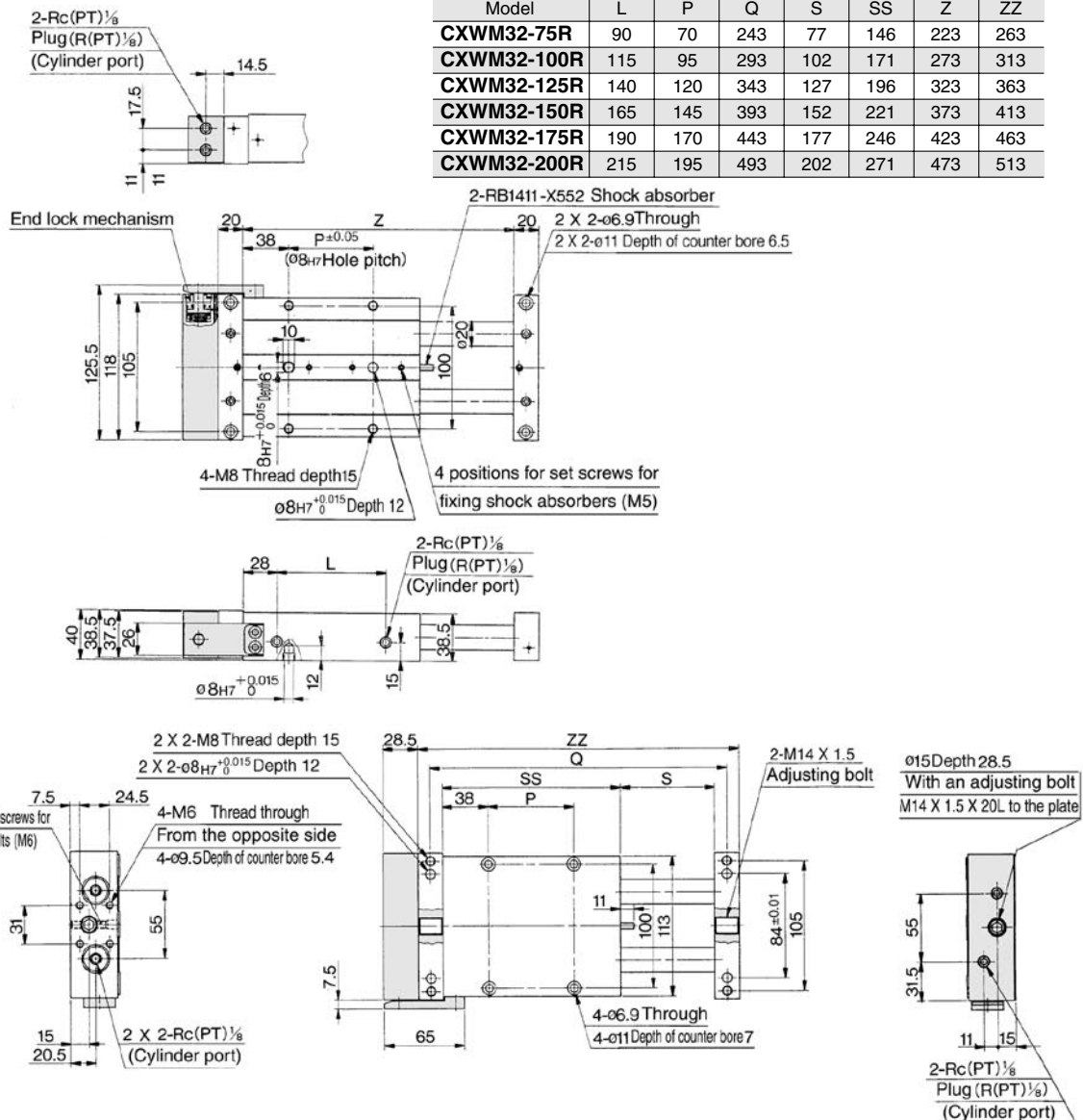
Ø32 Basic Style: CXWM32- Stroke/25, 50



ø32 With End Lock: CXWM32- Stroke/75 to 200 R

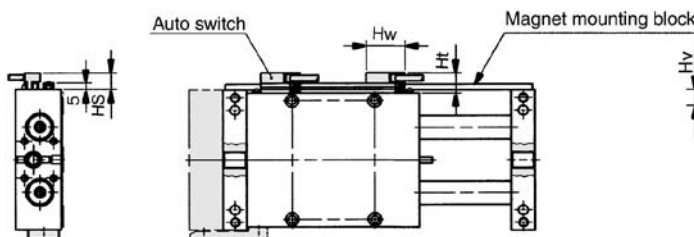
(mm)

Model	L	P	Q	S	SS	Z	ZZ
CXWM32-75R	90	70	243	77	146	223	263
CXWM32-100R	115	95	293	102	171	273	313
CXWM32-125R	140	120	343	127	196	323	363
CXWM32-150R	165	145	393	152	221	373	413
CXWM32-175R	190	170	443	177	246	423	463
CXWM32-200R	215	195	493	202	271	473	513

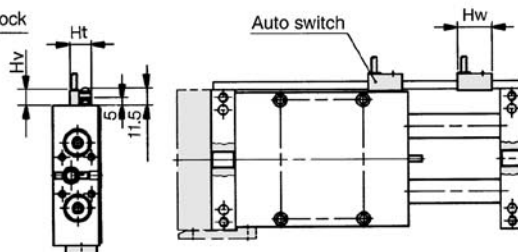


Housing mounting style with auto switch
CDBXWM32-Stroke, CDBXWM32-StrokeR

Plate mounting style with auto switch
CDPXWM32-Stroke, CDPXWM32-StrokeR



Note 1) The dimensions show D-7A and D-8A.



Note 1) The dimensions show D-7A and D-8A.

(mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J7, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	12.5	15
D-A7□H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5

Note 2) For 25 and 50 strokes, the shock absorber is mounted on a single side of the plate. Refer to p.2-90 for the dimensions of the 25 and 50 strokes.

(mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

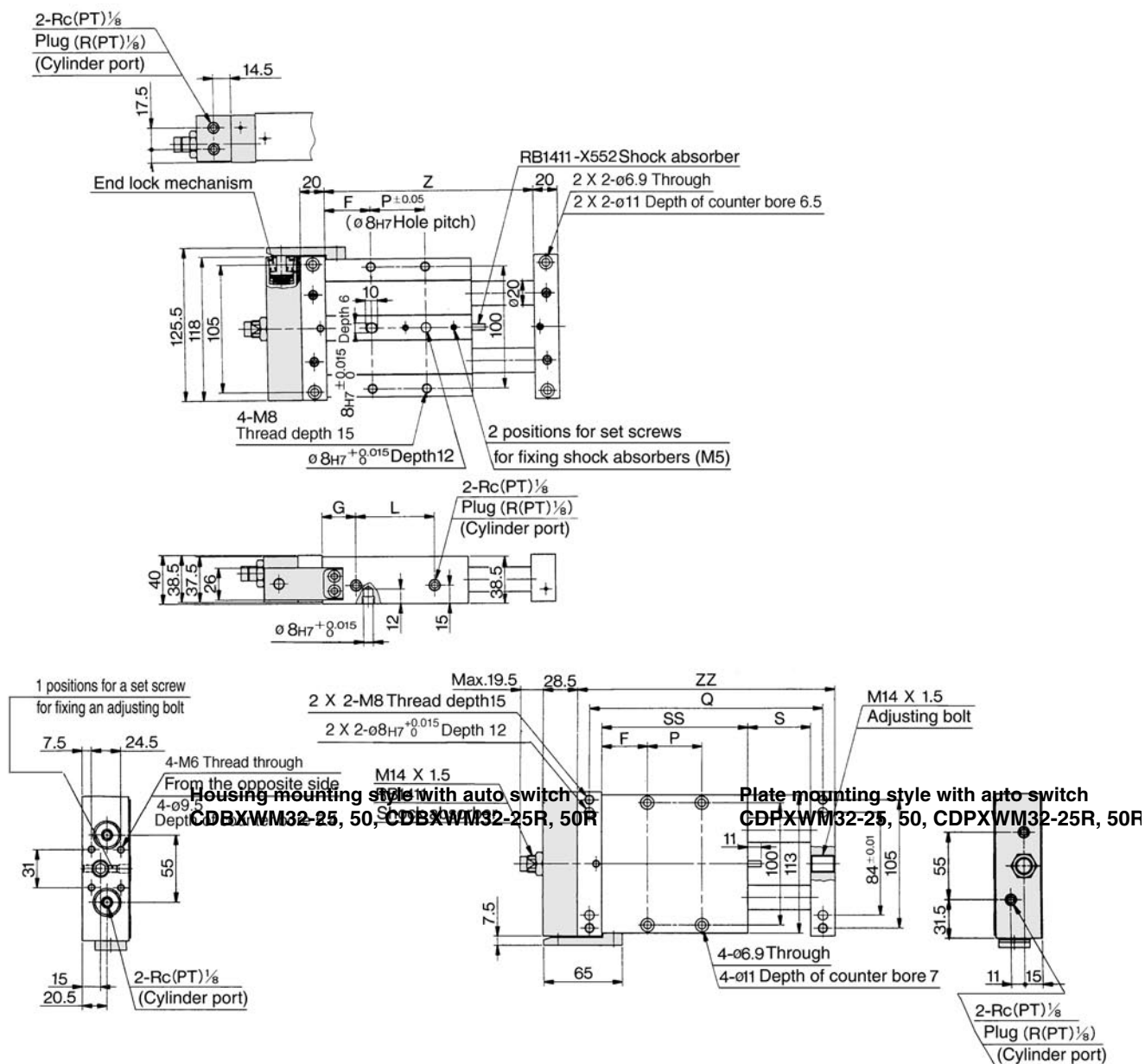
Note 2) For 25 and 50 strokes, the shock absorber is mounted on a single side of the plate. Refer to p.2-90 for the dimensions of the 25 and 50 strokes.

Series CXWM

ø32 With End Lock: CXWM32- Stroke/25, 50 R

(mm)

Model	F	L	P	Q	S	SS	G	Z	ZZ
CXWM32-25R	37	41	22	143	27	96	27.5	123	163
CXWM32-50R	38	65	45	193	52	121	28	173	213



Note 1) The dimensions show D-7A and D-8A

(mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	12.5	15
D-A73H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5

Note 2) 2 magnets for auto switches are equipped to the magnet mounting block.

Note 1) The dimensions show D-7A and D-8A

Auto switch	Hw	Ht
D-A7, D-A8	23	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15
D-A73H, D-A80H	22	15
D-A73C, D-A80C	23	17.5
D-F7□V, D-F7□WV	23	15
D-J79C	24	17.5

Note 2) 2 magnets for auto switches are installed in the housing.

Slide Unit/Built-in Shock Absorber

Series CXWL

Ball Bushing Bearing/ø10, ø16, ø20, ø25, ø32

How to Order

Standard

CXWL 16 150

With Auto Switch

C DB XWL 16 150 A73

Cylinder with auto switch

Symbol	Specification/Mounting
DB	With auto switch/ Housing mounting
DP	With auto switch/ Plate mounting

Bearing

L	Ball bushing
---	--------------

Cylinder bore size/Stroke (mm)

ø10	25, 50, 75, 100
ø16	25, 50, 75, 100, 125, 150, 175, 200
ø20	25, 50, 75, 100, 125, 150, 175, 200
ø25	25, 50, 75, 100, 125, 150, 175, 200
ø32	(25), 50, 75, 100, 125, 150, 175, 200

Number of auto switches

—	2
S	1
n	n

Auto switch

—	None
---	------

* Refer to the table below for the part numbers for auto switches.

End lock

R	With end lock
—	None



- Note 1) For (25) stroke, the shock absorber is mounted on a single side of the plate.
 Note 2) Refer to standard strokes list on p.2-92 for the strokes other than the strokes indicated above.
 Note 3) For ø16, ø20 and ø25, strokes up to 275, and for ø32, strokes up to 225 are available as made to order. (-XB11)

Applicable Auto Switch

Style	Special function	Electrical entry	Indication	Wiring (Output)	Load voltage			Auto switch model		Bore size		Wire length (m)*				Applicable load			
					DC		AC	Electrical entry		Housing mounting	Plate mounting	0.5 (—)	3 (L)	5 (Z)	— (N)				
								Perpendicular	In-line										
Reed switch	—	Grommet	Yes	3 wires	—	5V	—	—	A76H	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	●	●	—	—	IC	Relay PLC		
				2 wires	—	—	200V	A72	A72H			●	●	—	—	—			
			24V		12V	100V	A73	A73H	●			●	●	—	—				
					5V, 12V	100V or less	A80	A80H	●			●	—	—	IC				
		Connector	No	12V	—	A73C	—	●	●			●	●	—	—	—		—	
				5V, 12V	24V or less	A80C	—	●	●			●	●	—	—	IC			
		Grommet	Yes	3 wires	—	5V	—	—	E76A			ø10	—	●	●	—		—	—
				2 wires	24V	12V	100V	—	E73A					●	●	—		—	—
			No	5V, 12V	100V or less	—	E80A	●	●					—	—	IC			
				—	—	—	—	—	—					—	—	—		—	
Solid state auto switch	—	Grommet	Yes	3 wires (NPN)	24V	5V, 12V	—	F7NV	F79	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	●	●	○	—	IC	Relay PLC		
				3 wires (PNP)				F7PV	F7P			●	●	○	—	—			
		Connector		2 wires				12V	F7BV			J79	●	●	○	—		—	
				—				—	J79C			—	●	●	●	●		—	
	Diagnoses indication (2 colour)	Grommet		3 wires (NPN)	24V	5V, 12V	—	F7NWW	F79W			●	●	○	—	IC			
				3 wires (PNP)				—	F7PW			●	●	○	—	—			
				2 wires				12V	F7BWV			J79W	●	●	○	—		—	
				—				—	F7BA			—	●	○	—	—			
				3 wires (NPN)				5V, 12V	—			F7NT	—	●	○	—		IC	
				4 wires (NPN)				—	—			F79F	●	●	○	—		—	
	Water resistant (2 colour)	Grommet		—	24V	5V, 12V	—	—	F7BA			—	●	○	—	—			
				—				—	F7NT			—	●	○	—	—			
				—				—	F79F			●	●	○	—	—			
				—				—	F7LF**			●	●	○	—	—			

- * Symbols for wire length 0.5m — Ex) A80C 5m Z Ex) A80CZ
 3m L Ex) A80CL — N Ex) A80CN
 * The solid state switches marked with "○" are produced after orders are received.
 ** D-F7LF is not mountable to Series CDPXW.

Series CXWL

Built-in shock absorber

This is a built-in shock absorber style in which the shock absorber is enclosed in the housing.

Dramatically reduced installation labour

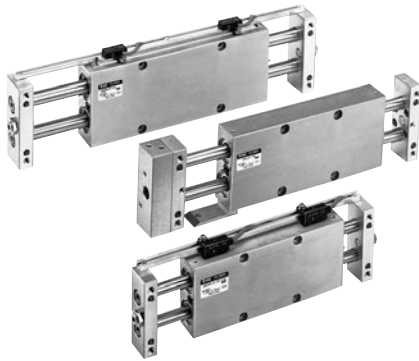
The machining precision required for positioning during the installation of the cylinder has been reduced through the adoption of a special pin hole machining process, thus decreasing the amount of labour involved.

High-precision ball bushing

The bearings made of ball bushings decrease the rise in starting pressure that could be caused by a load imbalance. This also enables smooth operation by ensuring stable travel resistance.

Provided with an end lock mechanism

An end lock is also available, which maintains the cylinder's original position even if the air supply is interrupted.



Specifications

Style	Non-lube	
Fluid	Air	
Proof pressure	1.5MPa	
Max. operating pressure	1.0MPa	
Min. operating pressure	CXWL10, 16	0.15MPa
	CXWL20, 25, 32	0.10MPa
Ambient and fluid temperature	-10°C to 60°C (No freezing)	
Piston speed (No lubrication)	30 to 500mm/s	
Cushion	Shock absorber	
Stroke adjustable range	Standard stroke: ±2mm	
Accessory (Option)	Straight knock pin (2 pcs.), Adjusting bolt* (-X138)	

* -X138 has a stroke adjustable range of -12.5mm on one side.

Max. Movable Load/Non-rotating Accuracy/Max. Holding Force

Model	CXWL10	CXWL16	CXWL20	CXWL25	CXWL32
Max. movable weight ⁽¹⁾	1kg	4kg	5kg	7kg	10kg
Non-rotating accuracy ⁽²⁾ (Deflection of a piston rod is not included.)	±0.09°	±0.03°	±0.03°	±0.02°	±0.01°
Max. holding force (End lock model)	39.2N	98.1N	147.1N	245.2N	392.3N

Note 1) Place the center of gravity of the load and center of the slide unit close during operation.

If they are placed far apart each other, consult SMC.

Note 2) The factors are obtained under the conditions of a 25 strokes plate is pushed out.

Shock Absorber Specifications

Shock absorber ⁽¹⁾		RB0805-X552	RB1006-X552	RB1411 RB1411-X552
Applicable slide unit		CXWL10, 16-□□	CXWL20, 25-□□	CXWL32-□□
Max. absorbed energy (J)		0.98	3.92	14.7
Absorbed stroke (mm)		5	6	11
Max. collision speed (m/sec)		0.05 to 5		
Max. operating frequency (cycle/min) ⁽²⁾		80	70	45
Max. allowable thrust (N)		147	353	667
Ambient temperature (°C)		-10 to 80		
Spring force (N)	Expanded	1.96	4.22	6.86
	Compressed	3.83	6.18	15.30
Weight (g)		15	25	65

Note 1) "-X552" is an exclusive shock absorber installed in the housing, and is the screw not attached specification of the outer part of the outer tube. "CXWL32-25" is mounted on a single side of the plate and of the screw attached specification.

Note 2) Maximum absorbed energy per one cycle. The operating frequency can be increased in compliance with the amount of absorbed energy.

Theoretical Force

(N)

Model	Rod size (mm)	Piston area (mm ²)	Operating pressure (MPa)							
			0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
CXWL10-□□	6	101	20	30	40	51	61	71	81	91
CXWL16-□□	10	245	49	74	98	123	147	172	196	221
CXWL20-□□	12	402	80	121	161	201	241	281	322	362
CXWL25-□□	14	597	119	179	239	299	358	418	478	537
CXWL32-□□	20	980	196	294	392	490	588	686	784	882

Note) Theoretical force (N)=Pressure (MPa) X Piston area (mm²)

Standard Strokes

Model	Standard stroke (mm)							
	25	50	75	100	125	150	175	200
CXWL10-□□	●	●	●	●	—	—	—	—
CXWL16-□□	●	●	●	●	●	●	●	●
CXWL20-□□	●	●	●	●	●	●	●	●
CXWL25-□□	●	●	●	●	●	●	●	●
CXWL32-□□	(*)	●	●	●	●	●	●	●

Note) The strokes marked with "(*)" has an absorber of single side plate mounting style.

Slide Unit/Ball Bushing Bearing: Built-in Shock Absorber *Series CXWL*

Weight

(kg)

Model	Stroke (mm)							
	25	50	75	100	125	150	175	200
CXWL10	0.33	0.40	0.46	0.53	—	—	—	—
CXWL16	0.72	0.85	0.98	1.11	1.23	1.36	1.49	1.62
CXWL20	1.0	1.18	1.35	1.53	1.71	1.89	2.06	2.24
CXWL25	1.32	1.54	1.76	1.97	2.19	2.43	2.63	2.86
CXWL32	2.56	2.96	3.37	3.75	4.19	4.56	4.98	5.39

Additional Weight for End Lock Model (CXWL□-R)

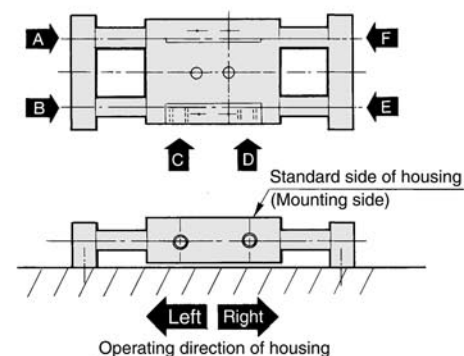
(kg)

Applicable model	Additional weight
CXWL10	0.08
CXWL16	0.14
CXWL20	0.15
CXWL25	0.20
CXWL32	0.43

Accessory (Option) Straight knock pin

Operating direction per pressurized port

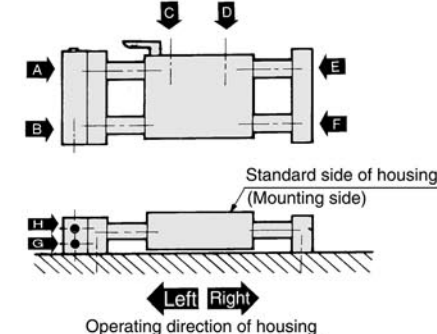
Operating direction of housing when the plate is fixed



Pressurized port	A	B	C	D	E	F
Operating direction	Right	Left	Left	Right	Left	Right

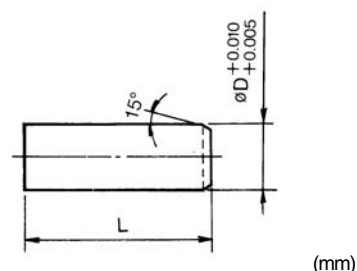
* There are 9 possible reciprocating piping methods.

With end lock (CXWL-□R)
Operating direction of housing when the plate is fixed



Pressurized port	A	B	C	D	E	F	G	H
Operating direction	Right	Left	Left	Right	Right	Left	Left	Right

* There are 16 possible reciprocating piping methods.

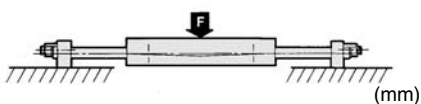


Model	L	øD	Model*
CXWL10	10	4	MS4-10
CXWL16	10	5	MS5-10
CXWL20	15	6	MS6-15
CXWL25	15	6	MS6-15
CXWL32	20	8	MS8-20

* Manufactured by Sansumi Trading Ltd.

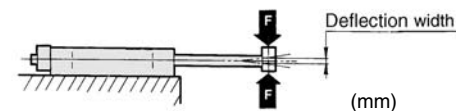
Deflection of a piston rod by centre loading (Reference)

When centre loading is added to the center of the housing



Model	Stroke	100	200
	Load (N)		
CXWL10	9.81	0.07	—
CXWL16	39.2	0.05	0.20
CXWL20	49	0.04	0.15
CXWL25	68.6	0.03	0.10
CXWL32	98.1	0.02	0.07

When centre loading is added to the center of the plate



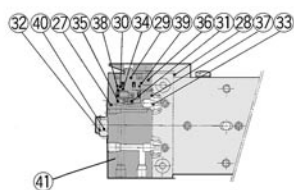
Model	Stroke	50	100	150	200
	Load (N)				
CXWL10	2.94	0.06	0.30	—	—
CXWL16	4.90	0.03	0.10	0.25	0.45
CXWL20	7.84	0.03	0.09	0.18	0.35
CXWL25	9.81	0.03	0.09	0.16	0.25
CXWL32	29.42	0.02	0.05	0.10	0.15

Note) The factors show the total width of the deflections in the vertical direction.

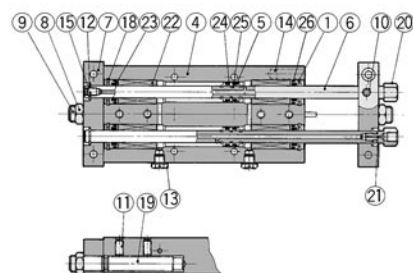
Series CXWL

Construction: ø10, ø16, ø25

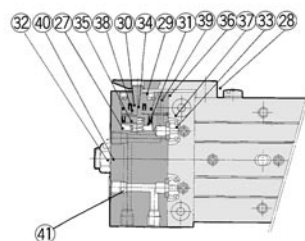
CXWL10



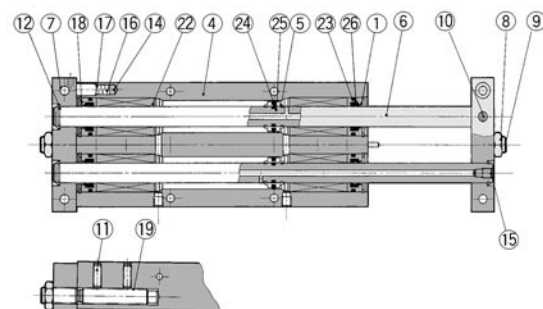
With end lock



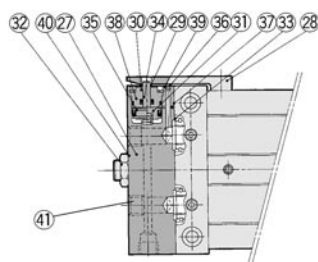
CXWL16



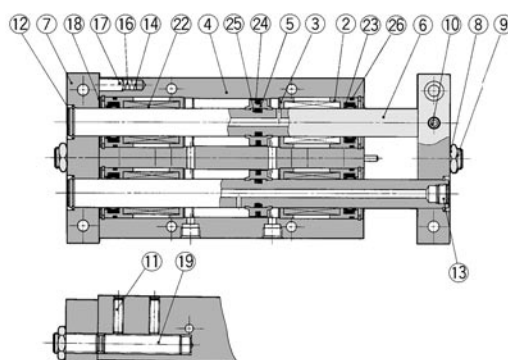
With end lock



CXWL25



With end lock



Component Parts

No.	Description	Material	Notes
①	Rod cover	Aluminum alloy	Anodized
②	Rod cover A	Aluminum alloy	Anodized
③	Rod cover B	Aluminum alloy	Anodized
④	Housing	Aluminum alloy	Hard anodized
⑤	Piston	Aluminum alloy	Chromated
⑥	Piston rod	High carbonate chrome bearing steel pipe	Quenched, Hard chrome plated
⑦	Plate	Aluminum alloy	Hard anodized
⑧	Lock nut	Carbon steel	Nickel plated
⑨	Adjusting bolt	Chrome steel	Nickel plated
⑩	Set screw (For fixing rods)	Chrome steel	Nickel plated
⑪	Set ring (For fixing shock absorbers)	Stainless steel	
⑫	Set ring	Carbon tool steel	Nickel plated
⑬	Plug	Brass	Nickel plated
⑭	Magnet	Rare earth magnet	ø5
⑮	Set screw for seal	Chrome steel	Nickel plated
⑯	Spring	Stainless steel	
⑰	CR set ring	Carbon tool steel	
⑱	Round R set ring	Carbon tool steel	Nickel plated
⑲	Shock absorber	—	(RB0805-X552 or RB1006-X552)
⑳	Socket	Brass	Electroless nickel plated
㉑	Gasket	NBR	
㉒	Ball bushing	—	
㉓	Rod seal	NBR	
㉔	Piston seal	NBR	
㉕	Piston gasket	NBR	
㉖	Cylinder tube gasket	NBR	

Component Parts/With end lock

No.	Description	Material	Notes
㉗	Body for locking	Aluminum alloy	Hard anodized
㉘	Lock finer	Alloy tool steel	Nickel plated after quenched
㉙	Lock piston	Carbon tool steel	Electroless nickel plated after quenched
㉚	Rod cover	Aluminum alloy	
㉛	Return spring	Spring steel	Zinc chromated
㉜	Adjusting bolt	Chrome steel	Nickel plated
㉝	Body gasket	NBR	
㉞	Rod seal	NBR	
㉟	Piston seal	NBR	
㊱	Steel ball	High carbon chrome bearing steel	
㊲	Steel ball	High carbon chrome bearing steel	
㊳	O ring	NBR	
㊴	Round R set ring	Carbon tool steel	Nickel plated
㊵	Lock nut	Carbon steel	Nickel plated
㊶	Plug	Chrome steel	Nickel plated

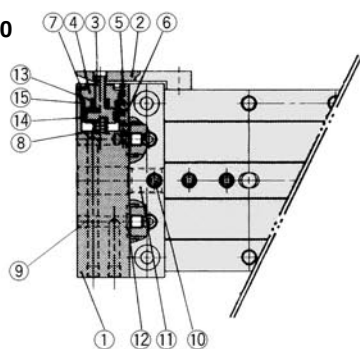
Replacement Parts: Seal kits

Model	Kit No.	Contents
CXWL10	CXWL10-PS	A rod seal ㉓, a piston seal ㉔ and a cylinder tube gasket ㉖ are included in one set.
CXWL16	CXWL16-PS	
CXWL25	CXWL25-PS	

* The seal kit includes a rod seal ㉓, a piston seal ㉔ and a cylinder tube gasket ㉖. List the order numbers in compliance with the respective models.
(The piston gasket ㉕ is not replaceable.)

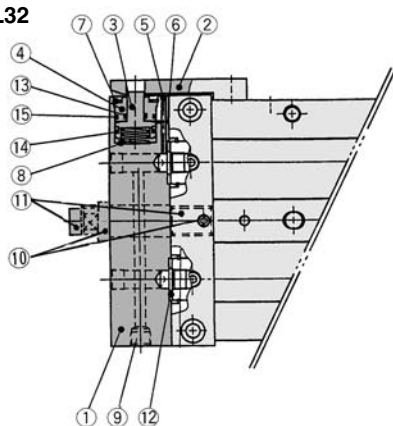
Construction: $\varnothing 20$, $\varnothing 32$

CXWL20

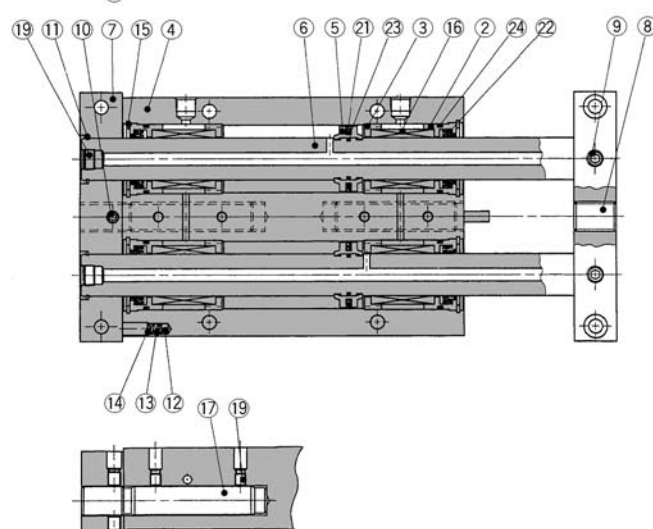
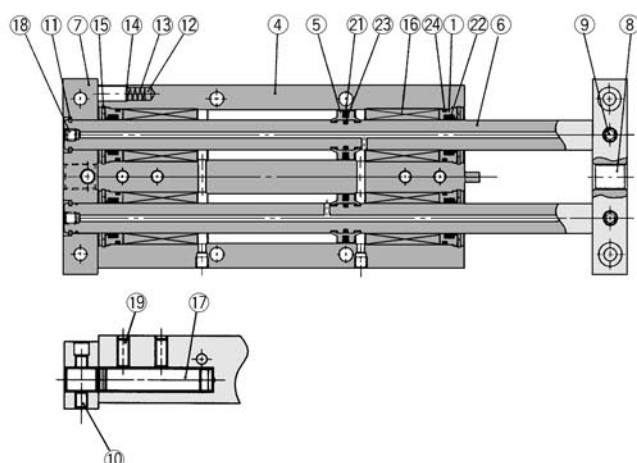


With end lock

CXWL32



With end lock



Component Parts

No.	Description	Material	Notes
①	Rod cover	Aluminum alloy	Andized
②	Rod cover A	Aluminum alloy	Andized
③	Rod cover B	Aluminum alloy	Andized
④	Housing	Aluminum alloy	Hard andized
⑤	Piston	Aluminum alloy	Chromated
⑥	Piston rod	Hard carbon chrome bearing steel	—
⑦	Plate	Aluminum alloy	Hard andized
⑧	Adjusting bolt	Chrome steel	Andized
⑨	Hex. socket head cap screw	Chrome steel	Andized
⑩	Hex. socket head cap screw	Chrome steel	Andized
⑪	Set ring	Tool steel	Andized
⑫	Magnet	Rear earth	$\varnothing 5$
⑬	Spring	Stainless steel	
⑭	CR set ring	Carbon tool steel	
⑮	Round R set ring	Carbon tool steel	Nickel plated
⑯	Ball bush	—	
⑰	Shock absorber	—	RB1006-X552 or RB1411-X552
⑱	Plug	Chrome steel	Nickel plated
⑲	Hex. socket head cap screw	Stainless steel	
⑳	Piston seal	NBR	
㉑	Rod seal	NBR	
㉒	Piston gasket	NBR	
㉓	Cylinder tube gasket	NBR	

Replacement Parts/Seal kit

Model	Order number	Contents
CXWL20	CXWL20-PS	A piston seal ㉑, a rod seal ㉒ and a cylinder tube gasket ㉓ are included in one set.
CXWL32	CXWL32-PS	

* The seal kit includes a piston seal ㉑, a rod seal ㉒ and a cylinder tube gasket ㉓. List the order numbers in compliance with the respective models. (The piston gasket is not replaceable.)

Component Parts/With end lock

No.	Description	Material	Notes
①	Body for locking	Aluminum alloy	Hard andized
②	Lock finger	Alloy tool steel	Nickel plating after quenched
③	Lock piston	Tool steel	Electroless nickel plated after quenched
④	Rod cover	Aluminum bearing alloy	
⑤	Steel ball	High carbon chrome bearing steel	
⑥	Steel ball	High carbon chrome bearing steel	
⑦	Round R type set ring	Carbon tool steel	Nickel plated
⑧	Return spring	Spring steel	Zinc chromated
⑨	Plug	Chrome steel	Nickel plated
⑩	25, (50) to 200 strokes	Hex. screw	Chrome steel
⑪	(25) strokes	Hexagon nut	Carbon steel
⑫	25, (50) to 200 strokes	Adjusting bolt	Chrome steel
⑬	(25) strokes	Shock absorber	—
⑭	Body gasket	NBR	
⑮	Rod seal	NBR	
⑯	Piston seal	NBR	
⑰	O ring	NBR	

Note1) Factors in the parentheses are of CXWM32.

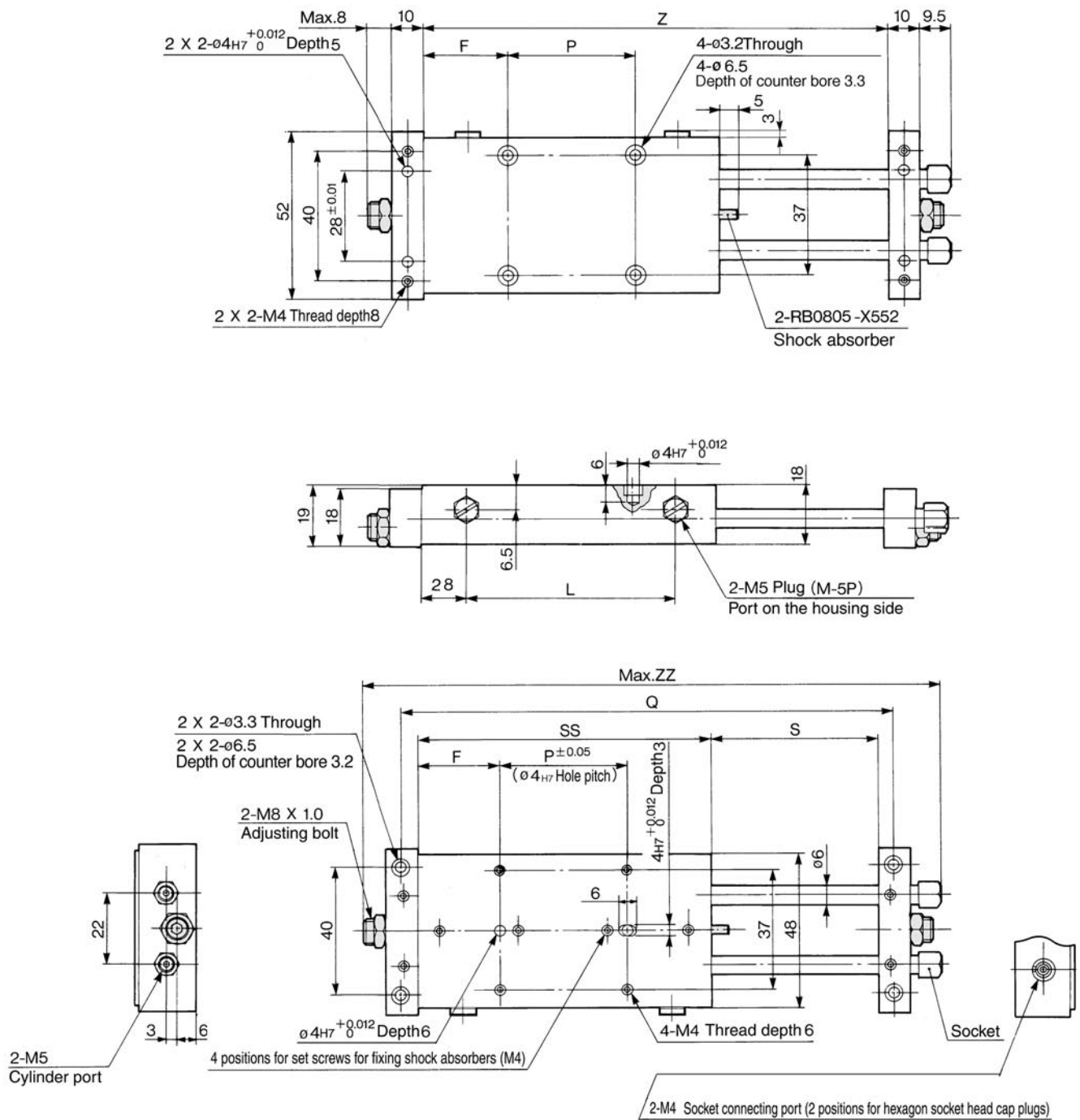
Replacement Parts/With end lock

Model	Kit No.	Contents
CXWL20	CXWL20R-PS	A body gasket ⑫, a rod seal ⑬, a piston seal ⑭ and an O ring ⑰ are included in one set.
CXWL32	CXWL32R-PS	

* The seal kit includes a body gasket ⑫, a rod seal ⑬, a piston seal ⑭ and an O ring ⑰. List the order numbers in compliance with the respective models.

Series CXWL

ø10 Basic Style: CXWL10- Stroke/25 to 100

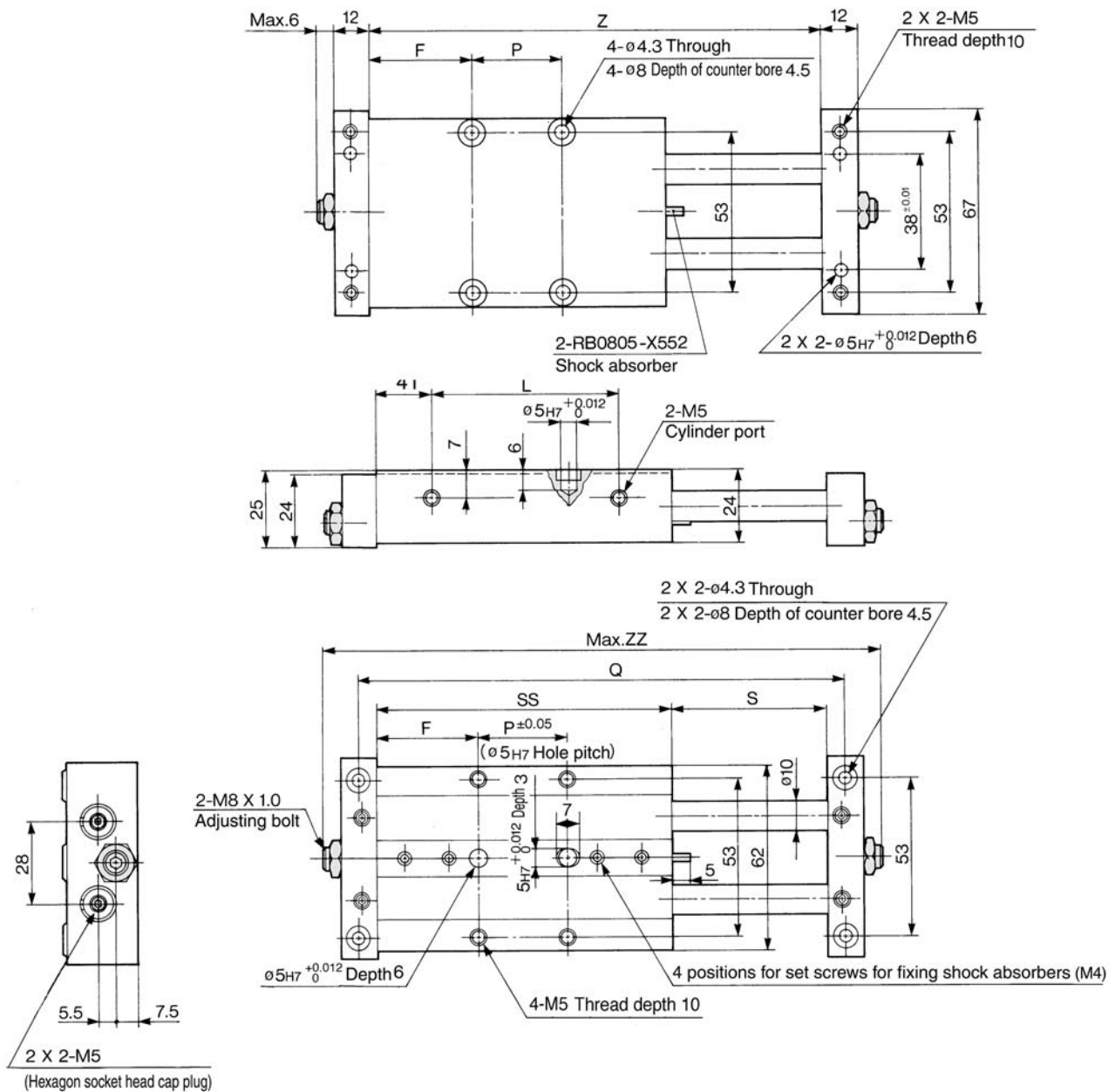


(mm)

Model	F	L	P	Q	S	SS	Z	ZZ
CXWL10-25	35.5	45	30	138	27	101	128	165.5
CXWL10-50	38	70	50	188	52	126	178	215.5
CXWL10-75	40.5	95	70	238	77	151	228	265.5
CXWL10-100	43	120	90	288	102	176	278	315.5

Series CXWL

ø16 Basic Style: CXWL16- Stroke/25 to 200



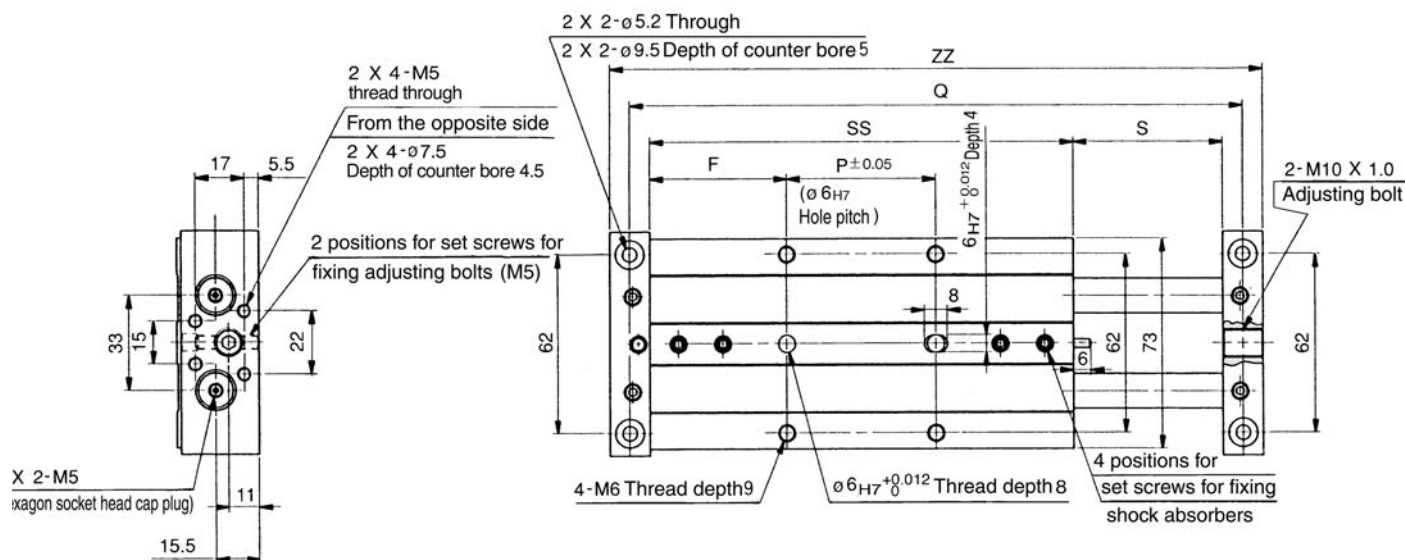
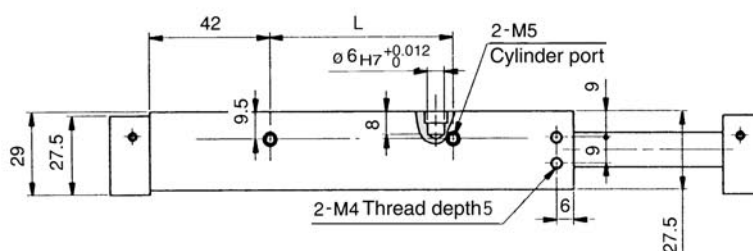
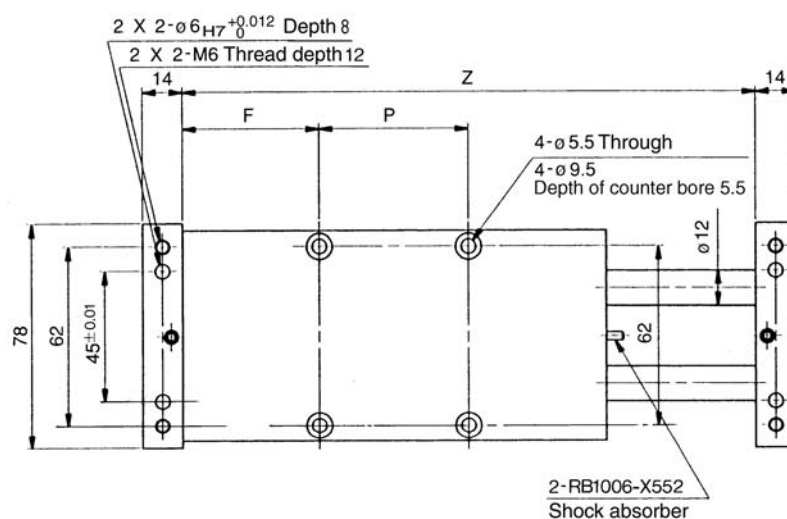
	(mm)							
Model	F	L	P	Q	S	SS	Z	ZZ
CXWL16-25	34.5	39	52	160	27	121	148	184
CXWL16-50	47	64	52	210	52	146	198	234
CXWL16-75	53	89	65	260	77	171	248	284
CXWL16-100	53	114	90	310	102	196	298	334
CXWL16-125	65.5	139	90	360	127	221	348	384
CXWL16-150	78	164	90	410	152	246	398	434
CXWL16-175	90.5	189	90	460	177	271	448	484
CXWL16-200	103	214	90	510	202	296	498	534

Ø16 With End Lock: CXWL16- Stroke/25 to 200 R



Series CXWL

Ø20 Basic Style: CXWL20- Stroke/25 to 200



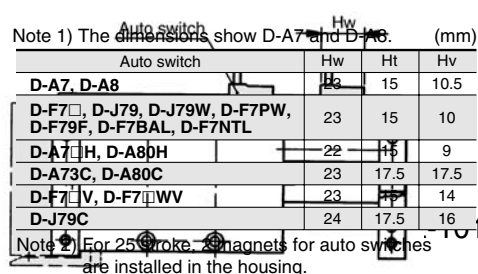
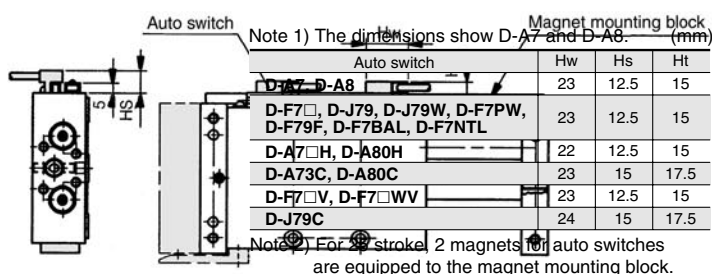
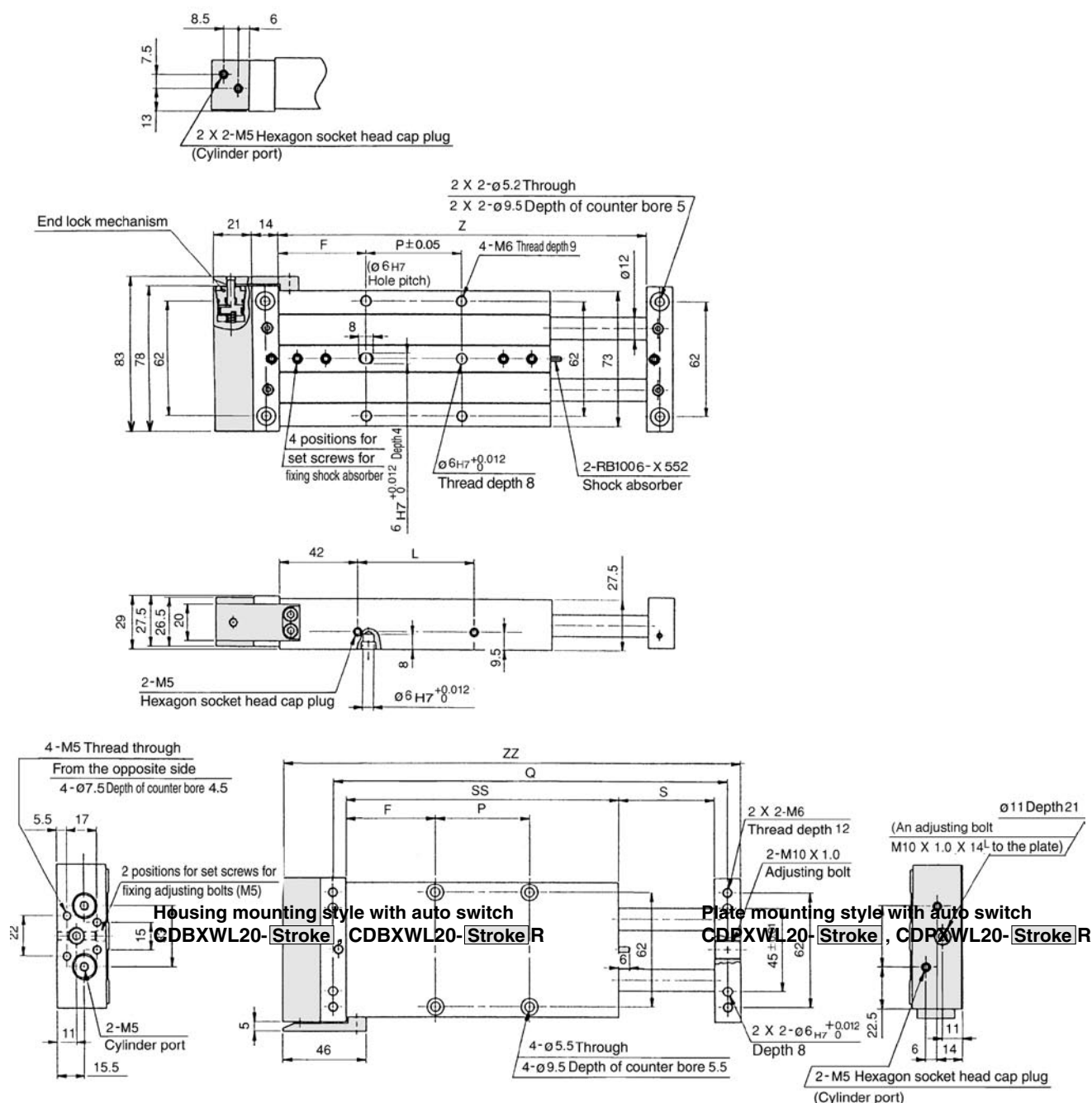
(mm)

Model	F	L	P	Q	S	SS	Z	ZZ
CXWL20-25	35.5	39	52	164	27	123	150	178
CXWL20-50	48	64	52	214	52	148	200	228
CXWL20-75	56.5	89	60	264	77	173	250	278
CXWL20-100	54	114	90	314	102	198	300	328
CXWL20-125	66.5	139	90	364	127	223	350	378
CXWL20-150	79	164	90	414	152	248	400	428
CXWL20-175	91.5	189	90	464	177	273	450	478
CXWL20-200	104	214	90	514	202	298	500	528

Slide Unit/Ball Bushing Bearing: Built-in Shock Absorber **Series CXWL**

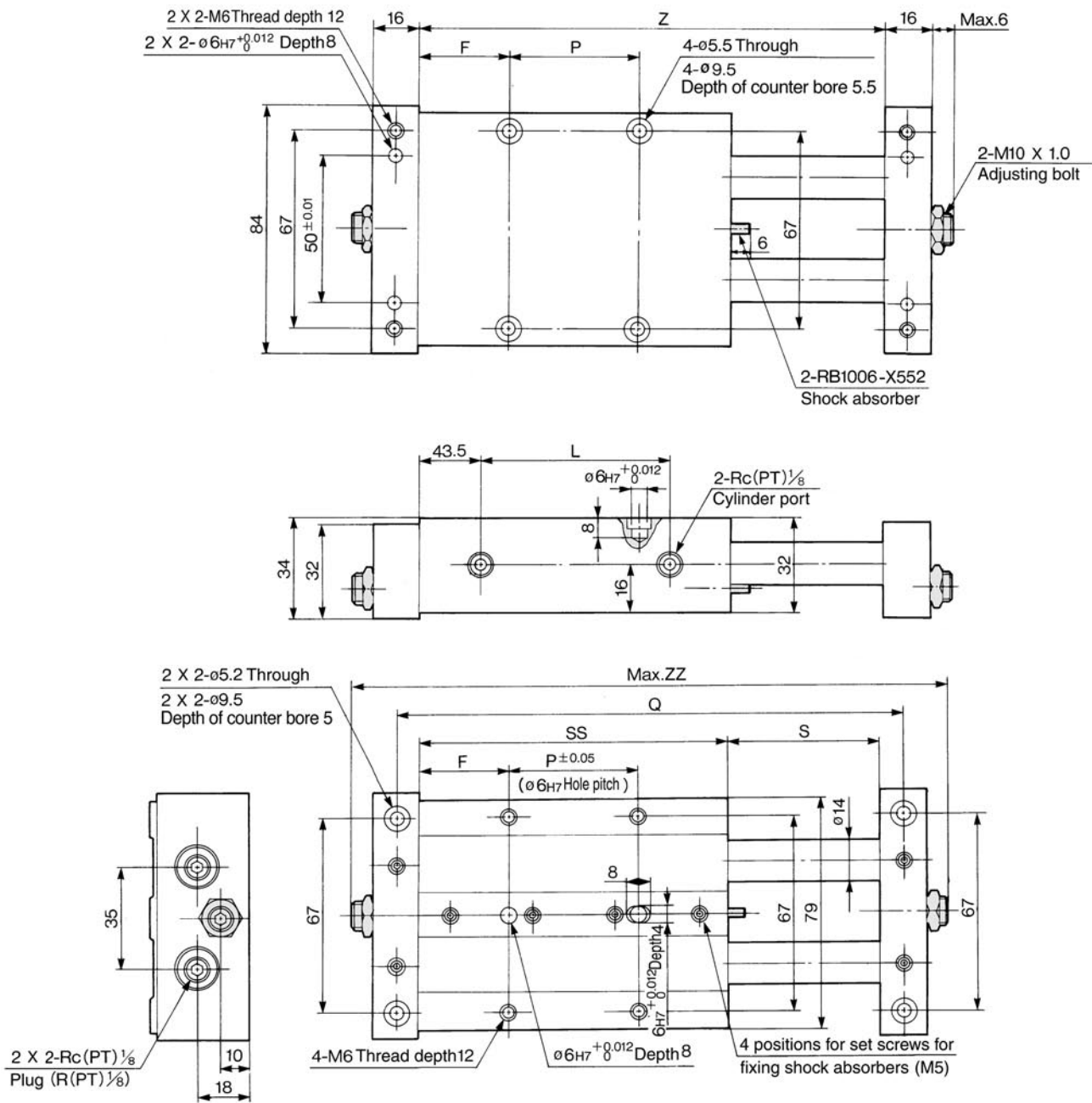
ø20 With End Lock: CXWL20- Stroke/25 to 200 R

	(mm)							
Model	F	L	P	Q	S	SS	Z	ZZ
CXWL20-25R	35.5	39	52	164	27	123	150	199
CXWL20-50R	48	64	52	214	52	148	200	249
CXWL20-75R	56.5	89	60	264	77	173	250	299
CXWL20-100R	54	114	90	314	102	198	300	349
CXWL20-125R	66.5	139	90	364	127	223	350	399
CXWL20-150R	79	164	90	414	152	248	400	449
CXWL20-175R	91.5	189	90	464	177	273	450	499
CXWL20-200R	104	214	90	514	202	298	500	549



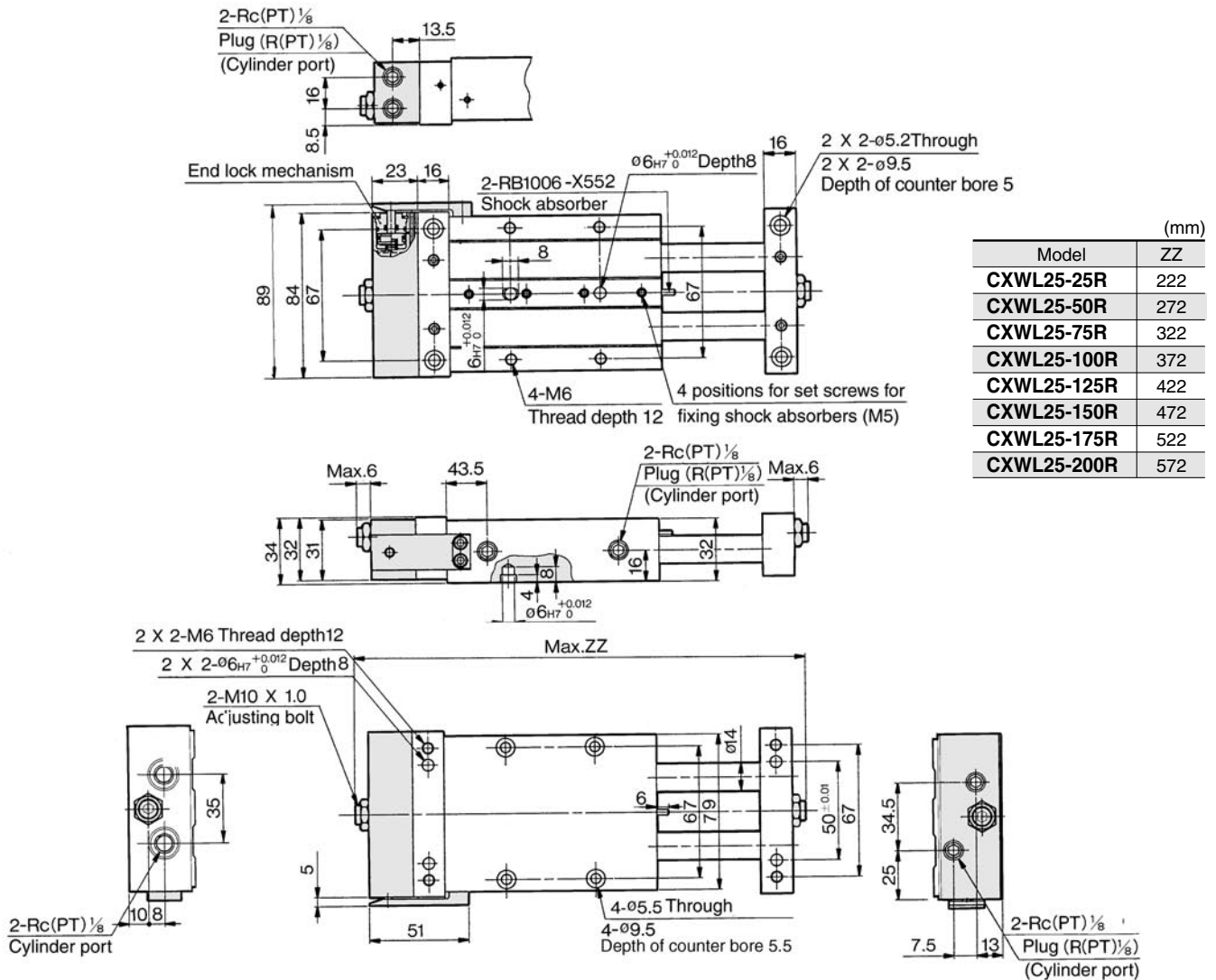
Series **CXWL**

ø25 Basic Style: CXWL25- **Stroke/25 to 200**



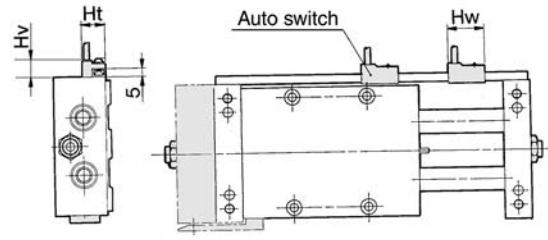
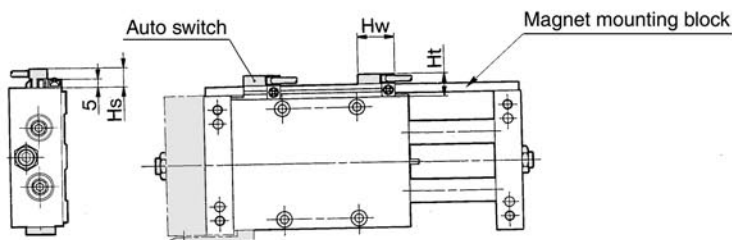
(mm)								
Model	F	L	P	Q	S	SS	Z	ZZ
CXWL25-25	31.5	41	65	171	27	128	155	199
CXWL25-50	31.5	66	90	221	52	153	205	249
CXWL25-75	56.5	91	65	271	77	178	255	299
CXWL25-100	56.5	116	90	321	102	203	305	349
CXWL25-125	69	141	90	371	127	228	355	399
CXWL25-150	81.5	166	90	421	152	253	405	449
CXWL25-175	94	191	90	471	177	278	455	499
CXWL25-200	106.5	216	90	521	202	303	505	549

ø25 With End Lock: CXWL25- Stroke/25 to 200 R



Housing mounting style with auto switch
CDBXWL25- Stroke, CDBXWL25- Stroke R

Plate mounting style with auto switch
CDPXWL25- Stroke, CDPXWL25- Stroke R



Note 1) The dimensions show D-A7 and D-A8. (mm)

Auto switch	Hw	Hs	Ht
D-A7, D-A8	23	12.5	15
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BAL, D-F7NTL	23	12.5	15
D-A7□H, D-A80H	22	12.5	15
D-A73C, D-A80C	23	15	17.5
D-F7□V, D-F7□WV	23	12.5	15
D-J79C	24	15	17.5

Note 2) For 25 stroke, 2 magnets for auto switches are equipped to the magnet mounting block.

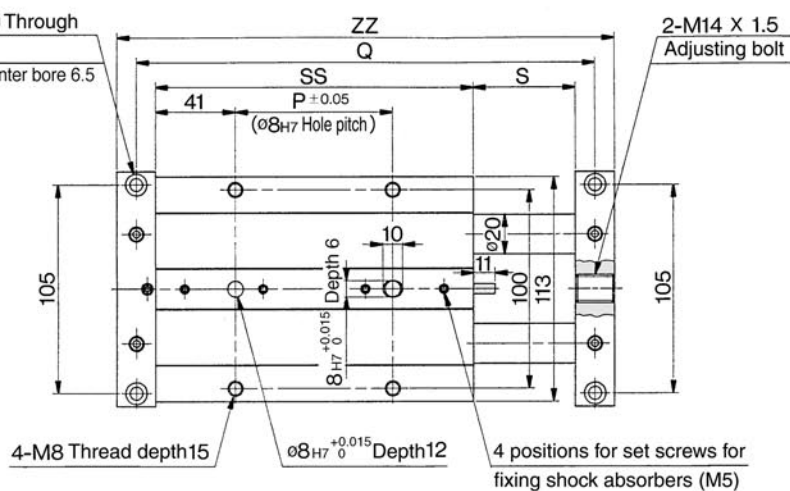
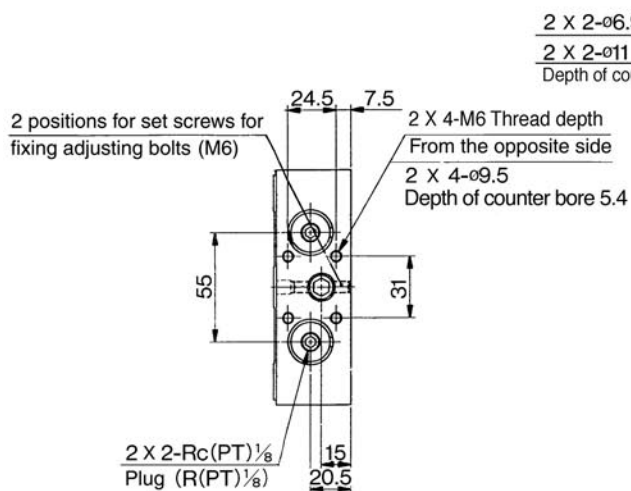
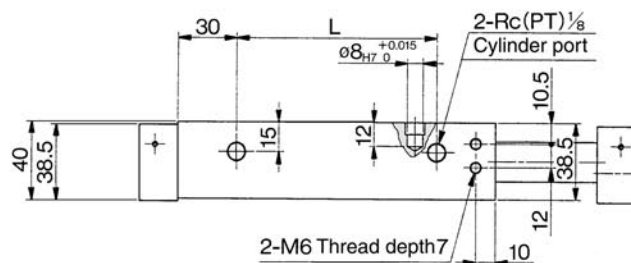
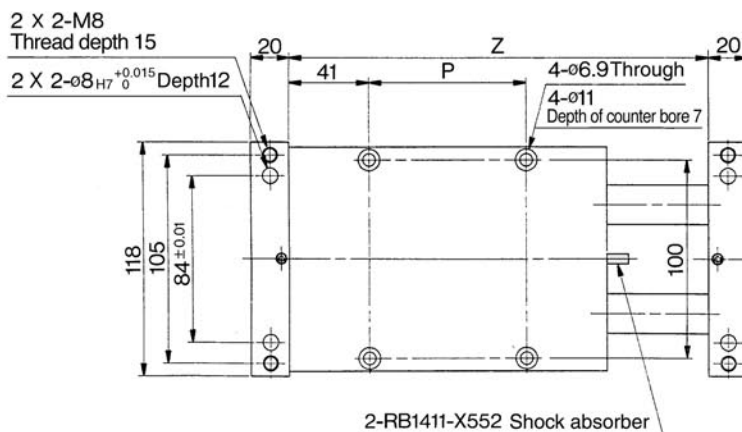
Note 1) The dimensions show D-A7 and D-A8. (mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BAL, D-F7NTL	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) For 25 stroke, 2 magnets for auto switches are installed in the housing.

Series CXWL

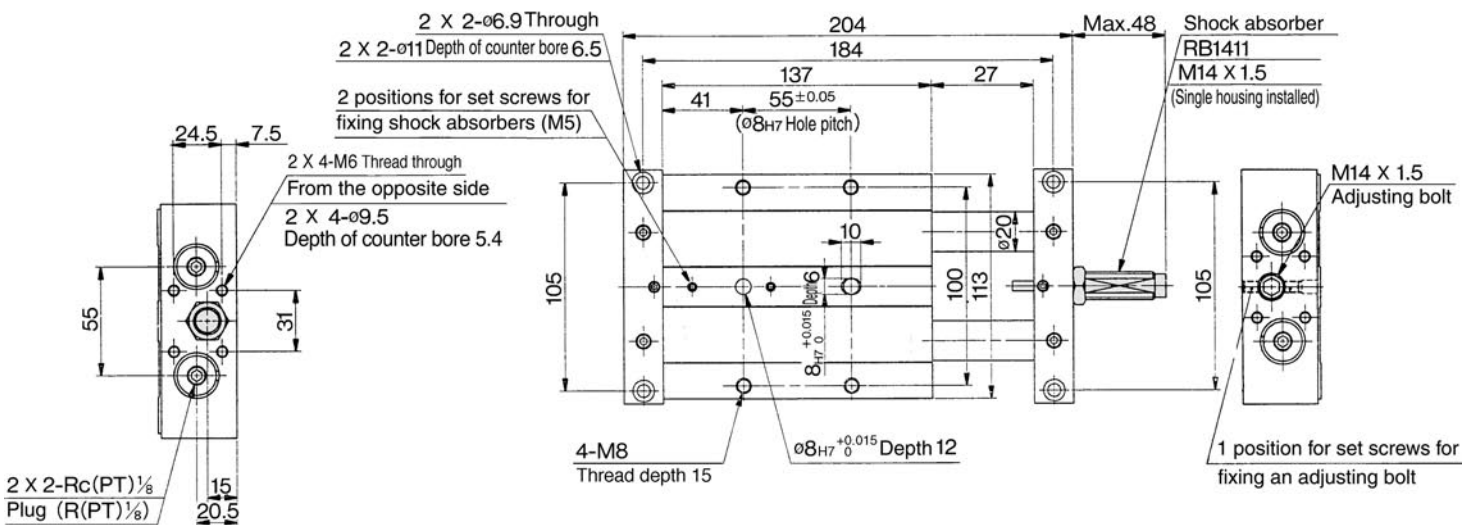
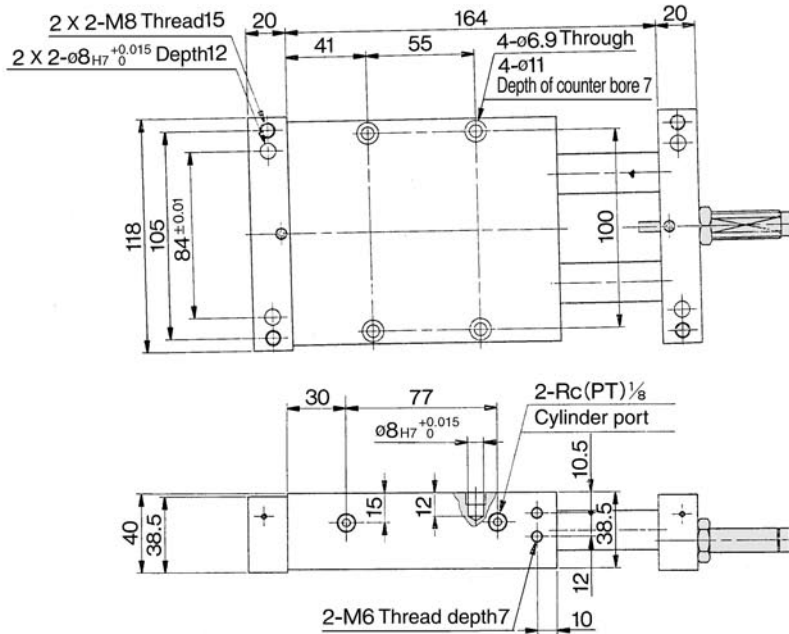
ø32 Basic Style: CXWL32- Stroke/50 to 200



(mm)

Model	L	P	Q	S	SS	Z	ZZ
CXWL32-50	102	80	234	52	162	214	254
CXWL32-75	127	105	284	77	187	264	304
CXWL32-100	152	130	334	102	212	314	354
CXWL32-125	177	155	384	127	237	364	404
CXWL32-150	202	180	434	152	262	414	454
CXWL32-175	227	205	484	177	287	464	504
CXWL32-200	252	230	534	202	312	514	554

ø32 Basic Type: CXWL32- 25 Stroke



Ø32 With End Lock: CXWL32- Stroke/50 to 200 R

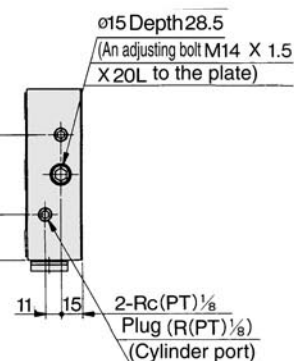
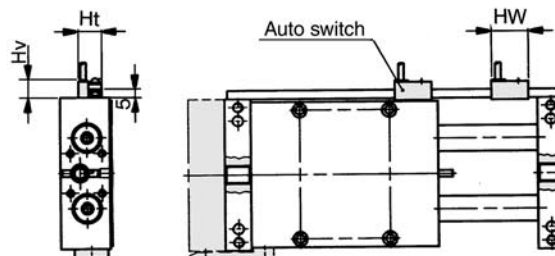


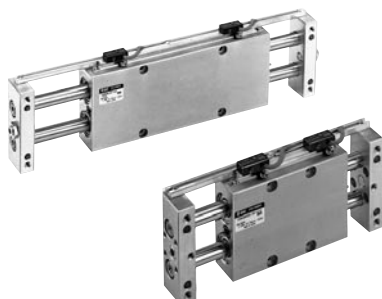
Plate mounting style with auto switch
CDPXL32-Stroke, **CDPXL32-StrokeR**



Note 1) The dimensions show D-A7 and D-A8. (mm)

Auto switch	Hw	Ht	Hv
D-A7, D-A8	23	15	10.5
D-F7□, D-J79, D-J79W, D-F7PW, D-F79F, D-F7BA, D-F7NT	23	15	10
D-A7□H, D-A80H	22	15	9
D-A73C, D-A80C	23	17.5	17.5
D-F7□V, D-F7□WV	23	15	14
D-J79C	24	17.5	16

Note 2) For 25 stroke, the shock absorber is mounted on a single side of the plate. Refer to p.2-107 for the dimensions of the 25 stroke.



Applicable auto switches

Applicable cylinder	Auto switch		Electrical entry/Function
CXWM, CXWL ($\phi 10, \phi 16, \phi 20$ $\phi 25, \phi 32$)	Reed switch	D-A7/A8	Grommet
		D-A7□H/A80H	Grommet
		D-A73C/A80C	Connector
		D-E7□A/E80A	Grommet/Direct mounting
	Solid state switch	D-F7□/J79	Grommet
		D-F7□W/J79W	Grommet/2 colour
		D-F7□F	Grommet
		D-F7BAL	Grommet/Water resistant
		D-F7NTL	Grommet/With timer
		D-F7□V	Grommet
		D-J79C	Connector
		D-F7□WV	Grommet/2 colour



- Note 1) Only housing mounting $\phi 10$ is possible for the auto switches D-E7□A and D-E80A.
 Note 2) Solid state switches are not mountable to the housing mounting $\phi 10$.
 Note 3) D-F7LF is not mountable to Series CDPXW.