

Dual Rod Cylinder Series CXS

ø6, ø10, ø15, ø20, ø25, ø32

Dual rod cylinder unit with guide function for pick & place applications

Twice the thrust

Through the adoption of dual rod construction, non-rotating accuracy and twice the cylinder thrust have been achieved.

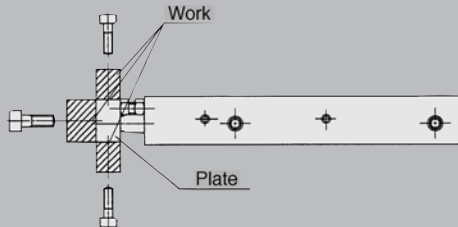
<Non-rotating accuracy>

Slide bearing...±0.1°

The slide bearing style and the ball bushing style are standard

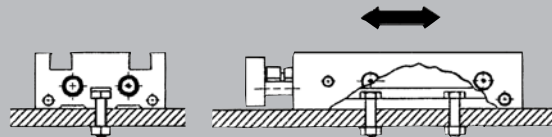
To improve accuracy, a longer bearing area has been provided and the exterior dimensions of the slide bearing style and the ball bushing style have been made identical.

The workpiece can be mounted from three sides.



Through the use of a T slot, the cylinder can be positioned freely in relationship to the workpiece. Thus, it has become easier to install and adjust the workpiece and the cylinder.

(Only ø6 type is available with T-slot.)

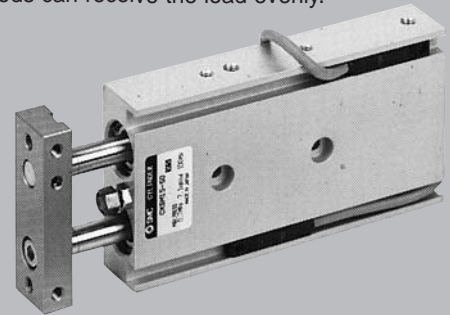


Adjustable stroke

An adjustment of 0 to -5mm can be made in relation to the standard stroke.

Dual rods receive the load evenly

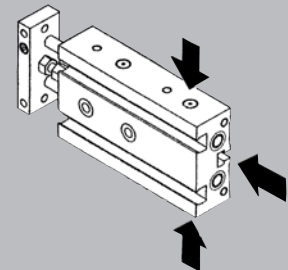
Through the adoption of a plate-mounted construction in which the piston contact surface can be adjusted, the dual rods can receive the load evenly.



A space saving design in which auto switches can be accommodated in the cylinder body.

Piping can be connected to any of the three sides

Piping can be connected to the three sides only on the ø6 cylinder; piping for other sizes can be connected to two sides.



Variations

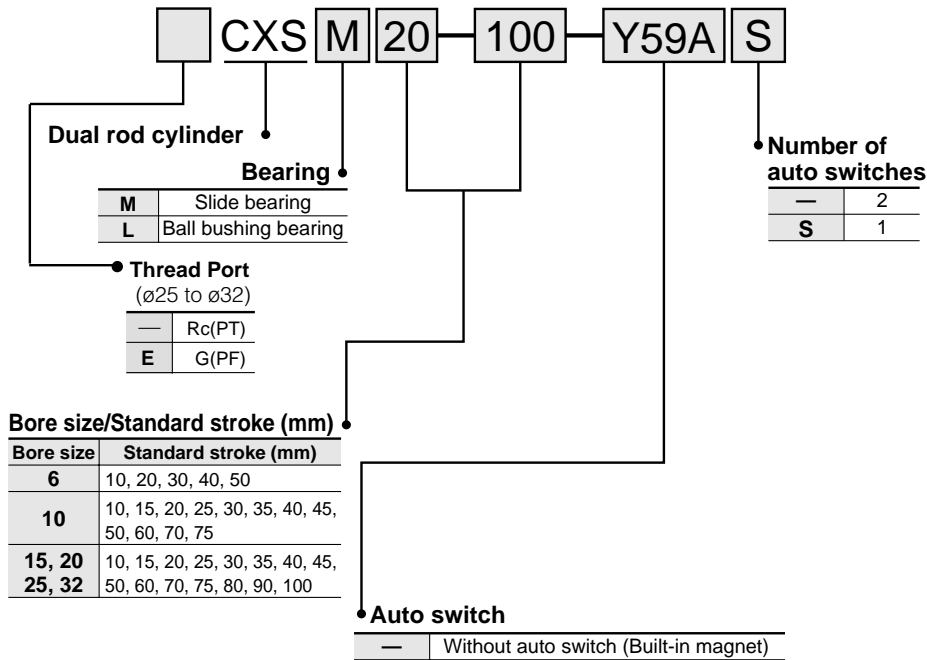
Bore size (mm)	Standard stroke (mm)														
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
6	●	—	●	—	●	—	●	—	●	—	—	—	—	—	—
10	●	●	●	●	●	●	●	●	●	●	●	●	—	—	—
15	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Made to order	Refer to p.5.4-1 and 5.4-102 concerning the made to order specification of Series CXS.														

Dual Rod Cylinder

Series CXS

ø6, ø10, ø15, ø20, ø25, ø32

How to Order



Applicable Auto Switch/Refer to p.5.3-2 for further information on auto switch.

Style	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Auto switch		Lead wire* (m)			Applicable load		
					DC	AC	Electrical entry		0.5 (—)	3 (L)	5 (Z)	IC	—	
							Perpendicular	In-line						
Reed switch	—	Grommet	Yes	3 wire	—	5V	—	—	Z76	●	●	—	IC	Relay PLC
				2 wire	24V	12V	100V	—	Z73	●	●	●	—	
					5V, 12V	100V or less	—	Z80	●	●	—	IC		
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	Y69A	Y59A	●	●	○	IC	Relay PLC
				3 wire (PNP)				Y7PV	Y7P	●	●	○		
				2 wire				Y69B	Y59B	●	●	○	—	
	3 wire (NPN)			Y7N WV	Y7N W	●	●	○	IC					
	3 wire (PNP)			Y7P WV	Y7P W	●	●	○	—					
	Diagnostic indication (2 colour)			Y7B WV	Y7B W	●	●	○	—					
				2 wire	—	Y7BA	—	●	○	—				
Water resistant (2 colour)	—	—	—	—	—	—	—	—	—	—	—	—		

*Lead wire length 0.5m..... — Ex.) Y59A
 3m..... L Ex.) Y59AL
 5m..... Z Ex.) Y59AZ

*Solid state switches marked with "○" are manufactured upon receipt of order.

Dual Rod Cylinder Series CXS



Model

Bearing	Series	Bore size (mm)	Applicable auto switch	
			Reed switch	Solid state switch
Slide bearing	CXSM	6, 10, 15, 20	D-Z7	C-Y5 D-Y6 D-Y7
Ball bushing bearing	CXSL	25, 32	D-Z8	

Specifications

Bore size (mm)	6	10	15	20	25	32
Min. operating pressure	0.15MPa	0.1MPa		0.05MPa		
Max. operating pressure	0.7MPa					
Proof pressure	1.05MPa					
Fluid	Air (Non-lube)					
Ambient and fluid temperature	-10 to 60°C (No freezing)					
Piston speed	30 to 300 mm/s	30 to 800 mm/s	30 to 700 mm/s		30 to 600 mm/s	
Piping port	M5 X 0.8				1/8	
Stroke adjustable range	0 to -5 mms to the standard stroke					
Bearing	Slide bearing, Ball bushing bearing (Same dimensions)					
Cushion	Rubber bumper					

*The maximum piston operating speeds given in the table above are for the extending side. The maximum piston operating speeds for the retracting side are approximately 70% of those of the extending side.

Standard Strokes

Model	Standard stroke	Available stroke range
CXS _L ^M 6	10, 20, 30, 40, 50	60 to 100
CXS _L ^M 10	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75	80 to 150
CXS _L ^M 15	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100	110 to 150
CXS _L ^M 20		110 to 200
CXS _L ^M 25		
CXS _L ^M 32		

*For longer strokes than standard, refer to the made to order list on p.5.4-102. (ø6 is available as a special product.)

Theoretical Force

Model	Rod dia. (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)							
				0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7
CXS _L ^M 6	4	OUT	56	—	8.4	11.2	16.8	22.4	28.0	33.6	39.2
		IN	31	—	4.6	6.2	9.3	12.4	15.5	18.6	21.7
CXS _L ^M 10	6	OUT	157	15.7	—	31.4	47.1	62.8	78.5	94.2	110
		IN	100	10.0	—	20.0	30.0	40.0	50.0	60.0	70.0
CXS _L ^M 15	8	OUT	353	35.3	—	70.6	106	141	177	212	247
		IN	252	25.2	—	50.4	75.6	101	126	151	176
CXS _L ^M 20	10	OUT	628	62.8	—	126	188	251	314	377	440
		IN	471	47.1	—	94.2	141	188	236	283	330
CXS _L ^M 25	12	OUT	982	98.2	—	196	295	393	491	589	687
		IN	756	75.6	—	151	227	302	378	454	529
CXS _L ^M 32	16	OUT	1608	161	—	322	482	643	804	965	1126
		IN	1206	121	—	241	362	482	603	724	844

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



Made to order

Refer to p.5.4-1 and 5.4-102 concerning made to order specification of Series CXS.

Selection Criteria

<Load>

When the operating pressure is 0.5MPa, the load pressure coefficient is below 0.9. However, considering the drop in the operating pressure, use a load ratio of 0.7 or below in proportion to the theoretical force when selecting the bore size.

<Piston speed>

The piston speed is affected by the airflow volume that creates a pressure difference between the supply pressure and the internal tube pressure, as well as the inertia of the load mass. Generally, select the bore size so that the ratio of the load to the theoretical force will be 0.5 or below. However, when the cylinder is used for performing an operation in a stationary state, such as for clamping or press fitting operations, the ratio can be 0.7 or below. If the CXS*6 is used for particularly low-speed applications, considering the small internal capacity of the cylinder, use two dual speed controllers (Part number INA-14-118) to effect IN/OUT control.

Weight

Model	Standard stroke (mm)														
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
CXSM 6	0.081	—	0.095	—	0.108	—	0.122	—	0.135	—	—	—	—	—	—
CXSL 6	0.081	—	0.095	—	0.108	—	0.122	—	0.135	—	—	—	—	—	—
CXSM 10	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	—	—	—
CXSL 10	0.16	0.165	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	—	—	—
CXSM 15	0.25	0.265	0.28	0.29	0.30	0.315	0.33	0.345	0.36	0.39	0.42	0.435	0.45	0.48	0.51
CXSL 15	0.27	0.285	0.30	0.31	0.32	0.335	0.35	0.365	0.38	0.41	0.44	0.455	0.47	0.50	0.53
CXSM 20	0.40	0.42	0.44	0.46	0.48	0.495	0.51	0.53	0.55	0.585	0.62	0.64	0.66	0.70	0.74
CXSL 20	0.43	0.445	0.46	0.48	0.50	0.515	0.53	0.55	0.57	0.605	0.64	0.66	0.68	0.715	0.75
CXSM 25	0.61	0.635	0.66	0.69	0.72	0.745	0.77	0.80	0.83	0.89	0.95	0.97	0.995	1.06	1.10
CXSL 25	0.62	0.645	0.67	0.70	0.73	0.755	0.78	0.81	0.84	0.895	0.955	0.98	1.005	1.065	1.11
CXSM 32	1.15	1.19	1.23	1.275	1.32	1.36	1.40	1.45	1.49	1.58	1.665	1.71	1.755	1.84	1.93
CXSL 32	1.16	1.205	1.25	1.295	1.34	1.38	1.42	1.465	1.51	1.595	1.68	1.72	1.765	1.855	1.94

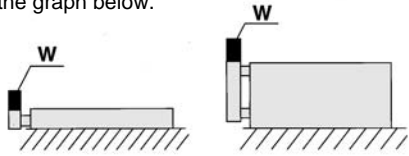
CL
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CB
CVMVG
CXW
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CXT
MX
MXU
MXH
MXS
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MXP
MG
MGP
MGQ
MGG
MGC
MGF
MGZ
CY
MY

Series CXS

Operating Conditions

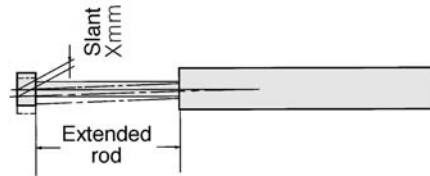
Max. movable load

If the body is mounted as shown in the diagram, the value of the maximum load mass W must be below the value given in the graph below.



Deflection at the plate end

An approximate amount of tilt X that occurs at the tip to the plate in the non-load state is given in the graph below.



Non-rotating accuracy

An approximate amount of non-rotating accuracy θ° in the non-load state is given in the graph below.

Cylinder bore size (mm)	$\phi 6$ to $\phi 32$
CXSM (Slide bearing)	$\pm 0.1^\circ$
CXSL (Ball bushing bearing)	

Allowable kinetic energy

Operate the cylinder at a load and speed within the range in the graph below. Use a speed controller to regulate the cylinder speed.

Precautions

Be sure to read before handling. Refer to p.0-39 to 0-46 for Safety Instructions and common precautions.

Installation

Caution

- Make sure that the surface onto which the cylinder is to be mounted is flat (a flatness of 0.05 or less {reference value}).
 - Although the dual rod cylinder can be mounted on any of its three sides, make sure that the surface onto which the cylinder is to be mounted is flat. Failure to observe this precaution could affect the accuracy of the piston rods or cause a malfunction.
- When mounting the cylinder, do so with the piston rods retracted.
 - If the sliding portion of the piston rods is scratched or gouged, it could damage the bearings and seals, leading to a malfunction or air leakage.

Piping

- Change the position of the plug for the air inlet in accordance with the operating conditions.
 - The dual rod cylinder provides two air inlets (three for $\phi 6$ only) for each operating direction. Thus, change the position of the plug in accordance with the operating conditions. Make sure to check the plug for any air leaks. If there is leakage, remove the plug, check the seat surface, and reinstall it.

Stroke Adjustment

Caution

- After adjusting the stroke, securely tighten the hexagon nut to prevent it from loosening.
 - The dual rod cylinder is provided with a bolt for adjusting the stroke by 0 to -5 mm on the retraction (IN) side of the piston rod. The stroke can be adjusted simply by loosening the hexagon nut. After the adjustment, securely tighten the hexagon nut to prevent it from loosening.
- Never operate the cylinder with its bumper bolt removed. Also, never operate the cylinder after further tightening the bumper bolt by merely removing the nut.
 - If the bumper bolt is removed, the piston will come in contact with the head cover, which could damage the cylinder. Therefore, do not operate the cylinder with its bumper bolt removed.
 - Also, if the damper bolt is tightened, the piston seal could be caught by the stepped portion of the tube, which could damage the seal.
- The bumper at the tip of the bumper bolt is replaceable. If it becomes collapsed or lost, use the part number listed below to re-order.

Model	CXS6/10/15	CXS20/25	CXS32
Part No.	CXS10-34A 28747	CXS20-34A 28749	CXS32-34A 28751
Quantity	1 each		

Disassembly/Maintenance

Caution

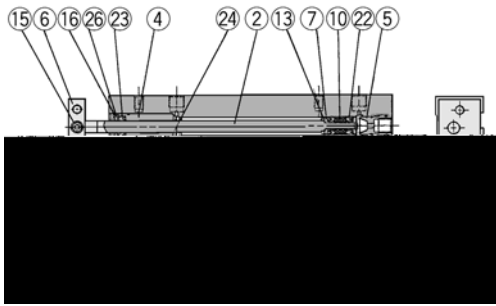
- Never operate the cylinder with its plate removed.
 - To remove the hexagon socket bolts from the end plate, the piston rod must be secured to prevent it from turning. If the plate is not needed, use the -X593 shown on p.5-4-102.
- To disassemble or to reinstall, contact SMC or refer to the separate operation manual.

Warning

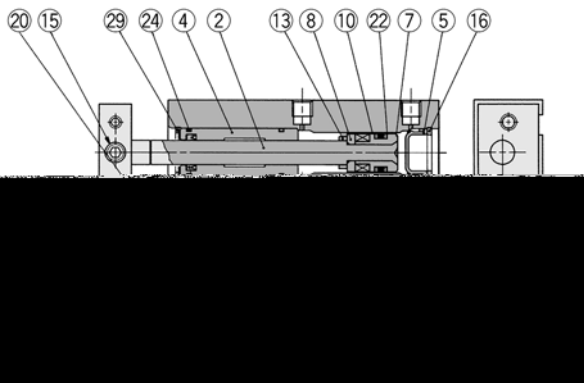
- Be careful with the area between the plate and the housing.
 - Prevent your fingers or hands from getting caught when the cylinder is operating.

CXSM Construction/Slide Bearing: $\varnothing 6$ to $\varnothing 32$

CXSM6

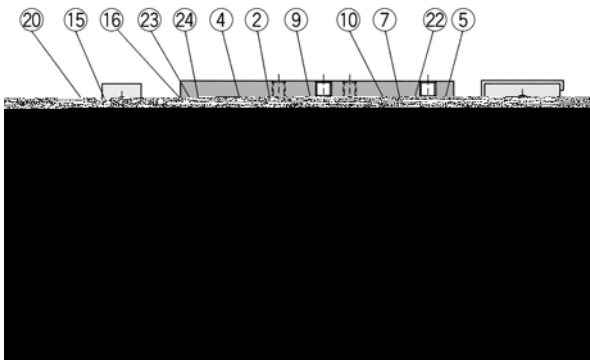


CXSM10/15




CXSM15

CXSM20 to 32



Component Parts

No.	Part	Material	Notes
①	Housing	Aluminum alloy	Hard anodized
②	Piston rod A	Carbon steel	Hard chrome plated
③	Piston rod B	Carbon steel	Hard chrome plated
④	Rod cover	Aluminum bearing alloy	
⑤	Head cover	Special steel ⁽¹⁾	
⑥	Plate	Aluminum alloy	Hard anodized
⑦	Piston A	Aluminum alloy	Chromated
⑧	Piston B	Aluminum alloy	Chromated
⑨	Bumper A	Polyurethane	
⑩	Magnet	Magnetic material	
⑪	Bumper bolt	Carbon steel	Nickel plated
⑫	Hexagon nut	Carbon steel	Nickel plated
⑬	Bumper B	Polyurethane	
⑭	Hex. socket head cap bolt	Chrome steel	Nickel plated
⑮	Hex. socket head cap screw	Chrome steel	Nickel plated
⑯	Set ring	Special steel	Nickel plated
⑰	Bumper holder	Aluminum bearing alloy	

 Note 1) CXSM6 is made of aluminum alloy and alumite treated.

Component Parts

No.	Description	Material	Notes
⑱	Ball bushing	—	
⑲	Bearing interface	Aluminum bearing alloy	
⑳	Bumper	Polyurethane	
㉑	Plug	Chrome steel	Nickel plated
㉒	Piston seal	NBR	
㉓	Rod seal	NBR	
㉔	O ring	NBR	Nickel plated
㉕	Head cover B	Steel board	
㉖	Seal retainer	Aluminum alloy	
㉗	Port interface	Aluminum alloy	Hard chrome plated
㉘	Steel ball	Special steel	Nickel plated
㉙	Set ring B	Special steel	

Replacement Parts: Seal Kits

Bore size (mm)	Kit No.	Contents
6	CXSM 6-PS	The seal kit includes a piston seal ㉒, a rod seal ㉓ and an O ring ㉔.
10	CXSM 10 APS	
15	CXSM 15-PS	
20	CXSM 20-PS	
25	CXSM 25-PS	
32	CXSM 32-PS	

*The seal kit includes a piston seal ㉒, a rod seal ㉓ and an O ring ㉔. Order with the order numbers in compliance with respective tube bore size.

CL

MLG

CNA

CNG

MNB

CNS

CLS

CB

CVMVG

CXW

CXS

CXT

MX

MXU

MXH

MXS

MXQ

MXF

MXW

MXP

MG

MGP

MGQ

MGG

MGC

MGF

MGZ

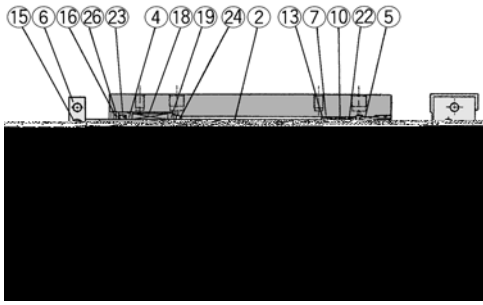
CY

MY

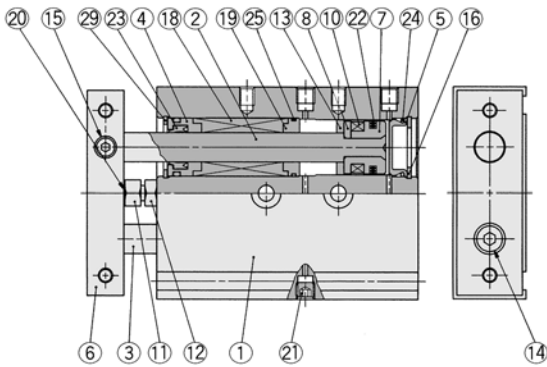
Series CXS

CXSL Construction/Ball Bushing Bearing: $\varnothing 6$ to $\varnothing 32$

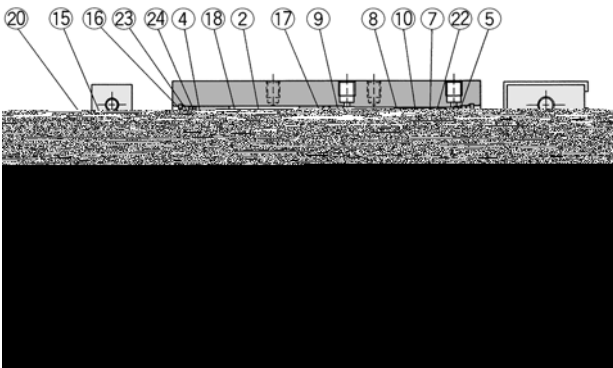
CXSL6



CXSL10/15



CXSL20 to 32



Component Parts

No.	Part	Material	Notes
①	Housing	Aluminum alloy	Hard anodized
②	Piston rod A	Carbon steel	Hard chrome plated
③	Piston rod B	Carbon steel	Hard chrome plated
④	Rod cover	Aluminum alloy	
⑤	Head cover A	Special steel ⁽¹⁾	
⑥	Plate	Aluminum alloy	Hard anodized
⑦	Piston A	Aluminum alloy	Chromated
⑧	Piston B	Aluminum alloy	Chromated
⑨	Bumper A	Polyurethane	
⑩	Magnet	Magnetic material	
⑪	Bumper bolt	Carbon steel	Nickel plated
⑫	Hexagon nut	Carbon steel	Nickel plated
⑬	Bumper B	Polyurethane	
⑭	Hex. socket head cap bolt	Chrome steel	Nickel plated
⑮	Hex. socket head cap screw	Chrome steel	Nickel plated
⑯	Set ring	Special steel	Nickel plated
⑰	Bumper holder	Aluminum bearing alloy	



Note 1) CXSL6 is made of aluminum alloy and alumite treated.

Component Parts

No.	Description	Material	Notes
⑱	Ball bushing	—	
⑲	Bearing interface	Aluminum bearing alloy	
⑳	Bumper	Polyurethane	
㉑	Plug	Chrome steel	Nickel plated
㉒	Piston seal	NBR	
㉓	Rod seal	NBR	
㉔	O ring	NBR	
㉕	Head cover B	Steel board	Nickel plated
㉖	Seal retainer	Aluminum alloy	
㉗	Port interface	Aluminum alloy	
㉘	Steel ball	Special steel	Hard chrome plated
㉙	Set ring B	Special steel	Nickel plated

Replacement Parts: Seal Kits

Bore size (mm)	Kit No.	Contents
6	CXSL 6-PS	The seal kit includes a piston seal ㉒, a rod seal ㉓ and an O ring ㉔.
10	CXSL 10-PS	
15	CXSL 15-PS	
20	CXSL 20-PS	
25	CXSL 25-PS	
32	CXSL 32-PS	

*The seal kit includes a piston seal ㉒, a rod seal ㉓ and an O ring ㉔. Order with the order numbers in compliance with respective tube bore size.

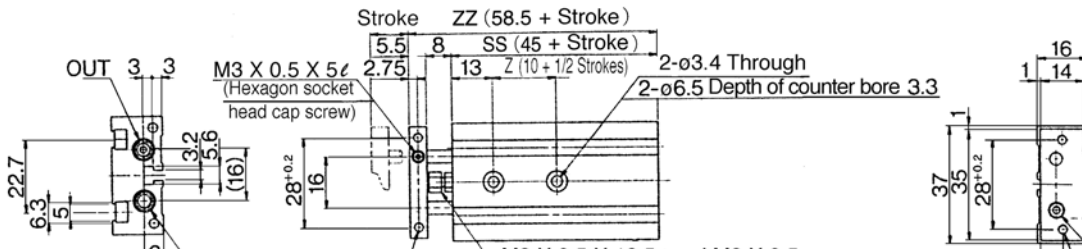
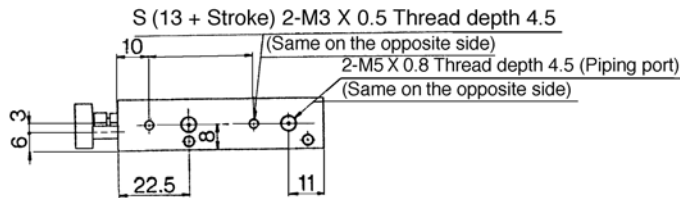
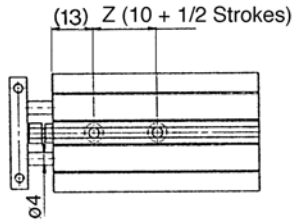


Dual Rod Cylinder *Series CXS*

Bore Size: **∅6**

Model	Stroke	Z	S	SS	ZZ
CXS□6-10	10	15	23	55	68.5
CXS□6-20	20	20	33	65	78.5
CXS□6-30	30	25	43	75	88.5
CXS□6-40	40	30	53	85	98.5
CXS□6-50	50	35	63	95	108.5

(mm)



CL

MLG

CNA

CNG

MNB

CNS

CLS

CB

CVMVG

CXW

CXS

CXT

MX

MXU

MXH

MXS

MXQ

MXF

MXW

MXP

MG

MGP

MGQ

MGG

MGC

MGF

MGZ

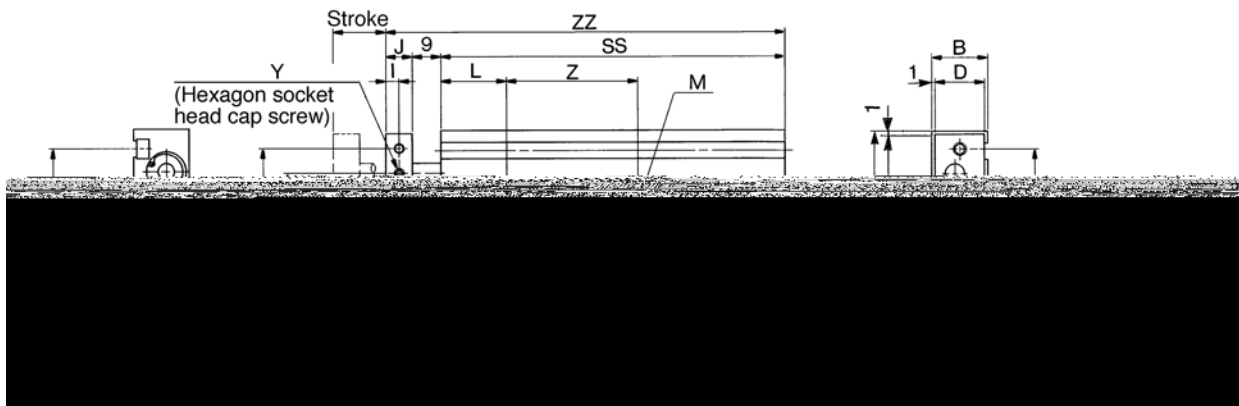
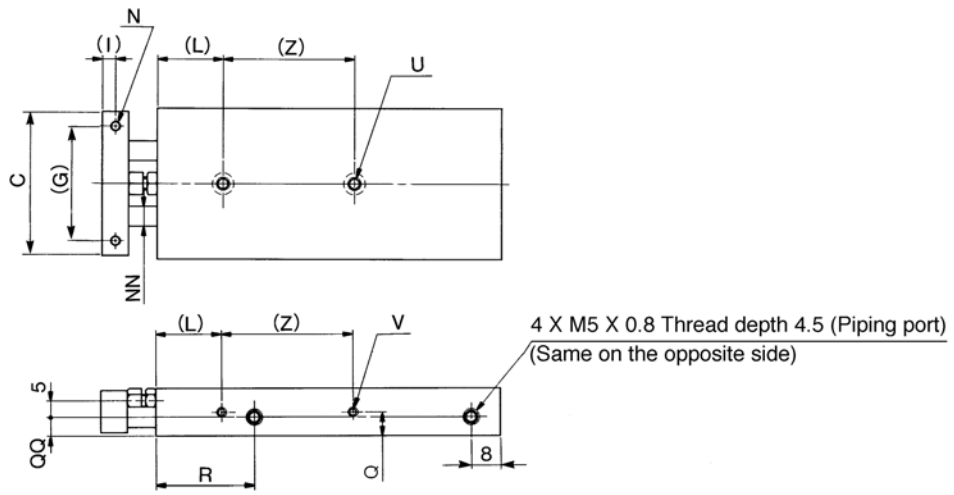
CY

MY

Series CXS



Bore Size: **ø10, ø15**



(mm)

Model	A	B	C	D	E	F	G	H	I	J	L	M	N	NN	P	Q	QQ	R	U	V (Same as opposite side)	X	Y
CXS_L^M10	46	17	44	15	7.5	2-M4 X 0.7 (Penetrated)	35	20	4	8	20	2-ø3.4 Through 2-ø6.5 Depth of counter bore3.3	2-M3 X 0.5 Thread depth 5	ø6	33.6	8.5	7	30	2-M4 X 0.7 Thread depth 7	4-M3 X 0.5 Thread depth 4.5	M3 X 0.5 X 10 ℓ	M5 X 0.8 X 5 ℓ
CXS_L^M15	58	20	56	18	9	2-M5 X 0.8 (Penetrated)	45	25	5	10	30	2-ø4.3 Through 2-ø8 Depth of counter bore4.4	2-M4 X 0.7 Thread depth 6	ø8	48	10	10	38.5	2-M5 X 0.8 Thread depth 8	4-M4 X 0.7 Thread depth 5	M5 X 0.8 X 10 ℓ	M6 X 1.0 X 5 ℓ

Strokes

Model	SS										Z					ZZ																							
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	10, 15	20, 25	30, 35	40, 45	50, 60	60, 70	75	80	90	100	10	15	20	25	30	35	40	45	50	60	70	75	80	90
CXS_L^M10	65	70	75	80	85	90	95	100	105	115	125	130	—	—	—	30	40	50	—	—	—	82	87	92	97	102	107	112	117	122	132	142	147	—	—	—			
CXS_L^M15	70	75	80	85	90	95	100	105	110	120	130	135	140	150	160	25	35	45	45	55	—	89	94	99	104	109	114	119	124	129	139	149	154	159	169	179			

With Auto Switch

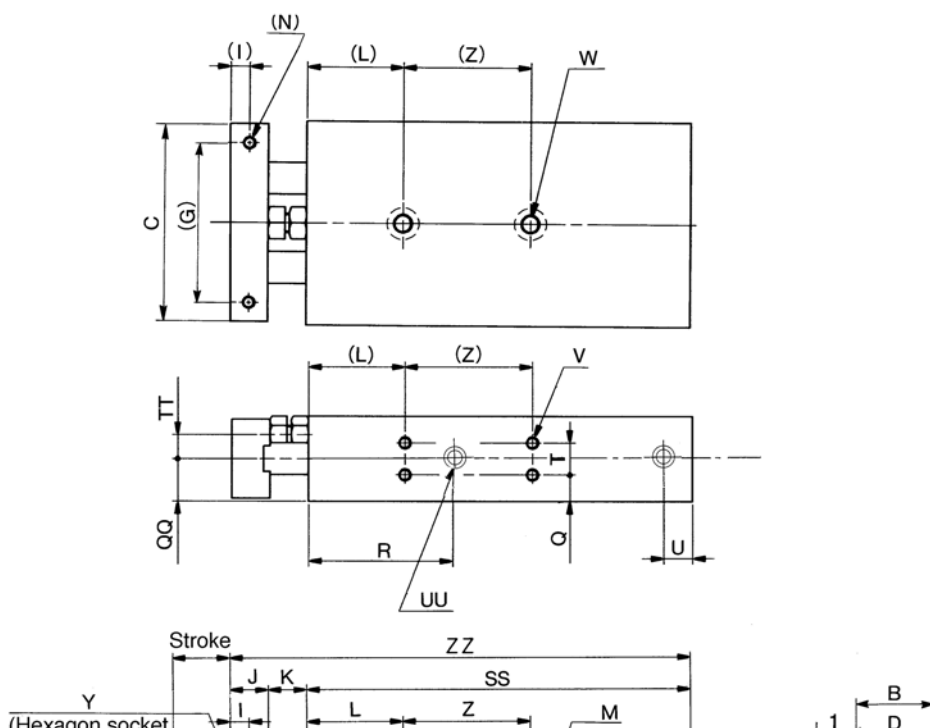


A dimensions

Auto switch	Bore size					
	6	10	15	20	25	32
D-Y59A, Y7P, Y59B	0.7					0.2
D-Y69A, Y7PV, Y69B						
D-Y7NWV, Y7PWV, Y7BWV	1.0					0.5
D-Y7NW, Y7PW, Y7BW						
D-Y7BAL	6.5					6.0
D-Z7, Z8	1.2					0.7



Bore Size: **ø20, ø25, ø32**



- CL
- MLG
- CNA
- CNG
- MNB
- CNS
- CLS
- CB
- CV/MVG
- CXW
- CXS**
- CXT
- MX
- MXU
- MXH
- MXS
- MXQ
- MXF
- MXW
- MXP
- MG
- MGP
- MGQ
- MGG
- MGC
- MGF
- MGZ
- CY
- MY

Model	A	B	C	D	E	F (Penetrated)	G	H	I	J	K	L	M	N	NN	OO	P
CXS ^M / _L 20	64	25	62	23	11.5	2-M5 X 0.8	50	28	6	12	12	30	2-ø5.5 Through 2-ø9.5 Depth of counter bore 5.3	2-M4 X 0.7 Thread depth 6	ø10	M6 X 1.0 X 18.5ℓ	53
CXS ^M / _L 25	80	30	78	28	14	2-M6 X 1.0	60	35	6	12	12	30	2-ø6.9 Through 2-ø11 Depth of counter bore 6.3	2-M5 X 0.8 Thread depth 7.5	ø12	M6 X 1.0 X 18.5ℓ	64
CXS ^M / _L 32	98	38	96	36	18	2-M6 X 1.0	75	44	8	16	14	30	2-ø6.9 Through 2-ø11 Depth of counter bore 6.3	2-M5 X 0.8 Thread depth 8	ø16	M8 X 1.25 X 23ℓ	76

Model	PP	Q	QQ	R	T	TT	U	UU Piping port (same on the opposite side)	V (Same as the opposite side)	W	X	Y
CXS ^M / _L 20	M6 X 1.0	7.75	12.5	45	9.5	6.5	8	4-M5 X 0.8 Thread depth 4.5	8-M4 X 0.7 Thread depth 5.5	2-M6 X 1.0 Thread depth 10	M6 X 1.0 X 12ℓ	M8 X 1.25 X 6ℓ
CXS ^M / _L 25	M6 X 1.0	8.5	15	46	13	9	9	4-1/8 Thread depth 6.5	8-M5 X 0.8 Thread depth 7.5	2-M8 X 1.25 Thread depth 12	M6 X 1.0 X 14ℓ	M8 X 1.25 X 6ℓ
CXS ^M / _L 32	M8 X 1.25	9	19	56	20	11.5	10	4-1/8 Thread depth 6.5	8-M5 X 0.8 Thread depth 7.5	2-M8 X 1.25 Thread depth 12	M8 X 1.25 X 16ℓ	M10 X 1.5 X 8ℓ

Dimensions per Stroke Length

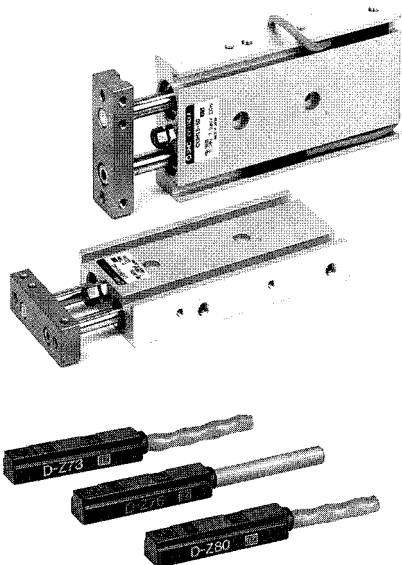
Model	SS														Z			ZZ															
	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100	10, 15, 20, 25	30, 35, 40, 45, 50	60, 70, 75, 80, 90, 100	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100
CXS ^M / _L 20	80	85	90	95	100	105	110	115	120	130	140	145	150	160	170	30	40	60	104	109	114	119	124	129	134	139	144	154	164	169	174	184	194
CXS ^M / _L 25	82	87	92	97	102	107	112	117	122	132	142	147	152	162	172	30	40	60	106	111	116	121	126	131	136	141	146	156	166	171	176	186	196
CXS ^M / _L 32	92	97	102	107	112	117	122	127	132	142	152	157	162	172	182	40	50	70	122	127	132	137	142	147	152	157	162	172	182	187	192	202	212

Series CXS

Auto Switch Specifications



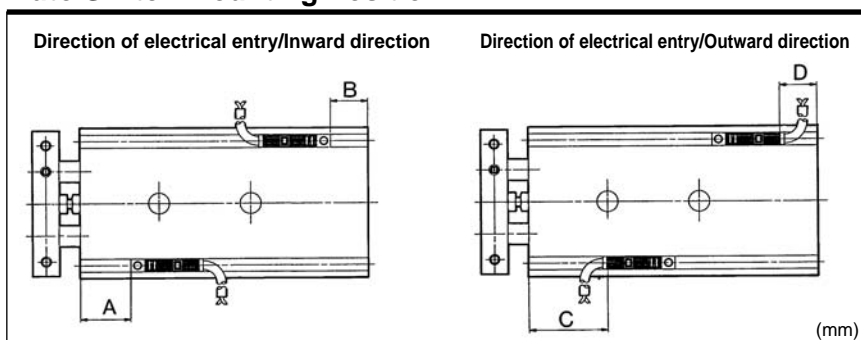
Refer to p.5.3-2 for further information on auto switch.



Applicable auto switch

Auto switch	Auto switch model	Electrical entry/Function	Page
Reed switch	D-Z7/Z8	Grommet (In-line)	5.3-23
Solid state switch	D-Y59□	Grommet (In-line)	5.3-40
	D-Y69□	Grommet (Perpendicular)	5.3-40
	D-Y7P	Grommet (In-line)	5.3-40
	D-Y7PV	Grommet (Perpendicular)	5.3-40
	D-Y7□W	Grommet (2 color, In-line)	5.3-48
	D-Y7□WV	Grommet (2 color, Perpendicular)	5.3-48
	D-Y7BAL	Grommet (Water resistant, In-line)	5.3-63

Auto Switch Mounting Position



Bore size (mm)	A	B	D-Z7/Z8/D-Y7□W D-Y5□/D-Y7□		D-Y6□/D-Y7□V D-Y7□WV		D-Y7BAL	
			C	D	C	D	C	D
6	15.5	4.5	11.5 (10)	0.5 (-1)	13	2	5.5	-5.5
10	22.5	7.5	18.5 (17)	3.5 (2)	20	5	12.5	-2.5
15	30.5	4.5	26.5 (25)	0.5 (-1)	28	2	20.5	-5.5
20	38	7	34 (32.5)	3 (1.5)	36	4.5	28	-3
25	38	9	34 (32.5)	5 (3.5)	36	6.5	28	-1
32	48	9	44 (42.5)	5 (3.5)	46	6.5	38	-1

The direction of electrical entry is inward when packed.
 Note 1) The dimensions given in negative figures in the table represent the dimensions that extend outward from the end of the cylinder body.
 Note 2) (): D-Z73

How to Fix Auto Switches

To secure an auto switch, insert it into the cylinder's switch mounting groove in the direction shown in the drawing below. After establishing its mounting position, use a flat watchmaker's screwdriver to tighten the switch retaining screw that is provided.

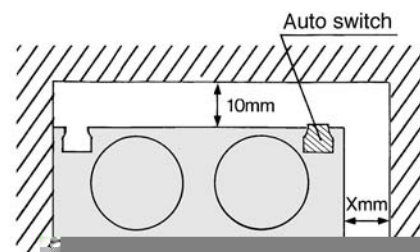
Note) When tightening the auto switch retaining screw, use a watchmaker's screwdriver with a grip diameter of 5 to 6mm. The tightening torque is 0.05 to 0.1Nm. As a rule, turn the screw an additional 90° after tightening resistance is felt.

⚠ Precautions

Be sure to read before handling.
 Refer to p.0-39 to 0-46 for common precautions for auto switch.

⚠ Caution

- ① Avoid proximity to magnetic objects
 - If magnetic objects such as those made of iron (including flange brackets) are placed near the body of the cylinder with an auto switch, make sure to provide a clearance between the cylinder and the magnetic object as shown in the diagram. If the clearance is less than the value shown below, the auto switch might not turn ON (or malfunction).

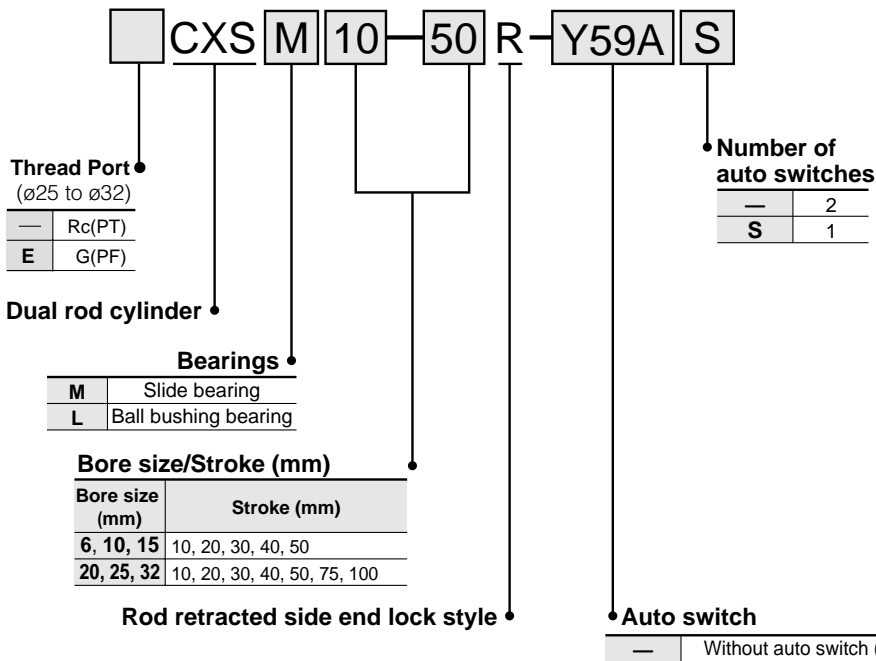


Bore size	X (mm)
ø6	0
ø10	0
ø15	10
ø20	10
ø25	0
ø32	0

Dual Rod Cylinder Series CXS

Rod Retracted Side End Lock: CXS□□-□R

How to Order



Applicable Auto Switch/Refer to p.5.3-2 for further information on auto switch.

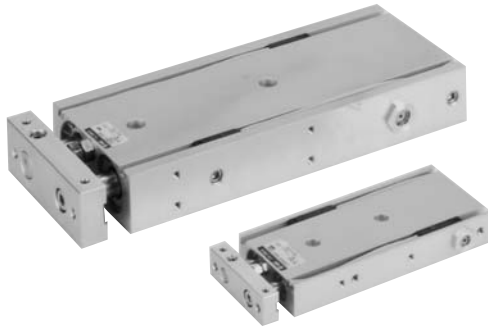
Style	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Model		Lead wire* (m)			Applicable load			
					DC	AC	Electrical entry		0.5 (→)	3 (L)	5 (Z)				
							Perpendicular	In-line							
Reed switch	—	Grommet	Yes	3 wire	—	5V	—	Z76	●	●	—	IC	Relay PLC		
				2 wire	24V	12V	100V	—	Z73	●	●	●		—	
						5V, 12V	100V or less	—	Z80	●	●	—		IC	
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	Y69A	Y59A	●	●	○	IC	Relay PLC	
				3 wire (PNP)				Y7PV	Y7P	●	●	○			
				2 wire				Y69B	Y59B	●	●	○			—
	Diagnostic indication (2 colour)			—	3 wire (NPN)	24V	5V, 12V	—	Y7N WV	Y7N W	●	●	○		IC
					3 wire (PNP)				Y7P WV	Y7P W	●	●	○		
					2 wire				Y7B WV	Y7B W	●	●	○		
									—	Y7B A	—	●	○		

*Lead wire length 0.5m..... — Ex.) Y59A
3m..... L Ex.) Y59AL
5m..... Z Ex.) Y59AZ

*The auto switches marked with "○" are manufactured upon receipt of order.

CL
MLG
CNA
CNG
MNB
CNS
CLS
CB
CV/MVG
CXW
CXS
CXT
MX
MXU
MXH
MXS
MXQ
MXF
MXW
MXP
MG
MGP
MGQ
MGG
MGC
MGF
MGZ
CY
MY

Series CXS



Lock Specifications

Lock specification	Retracting stroke end					
	6	10	15	20	25	32
Bore size (mm)	6	10	15	20	25	32
Max. holding force	14.7	39.2	98.1	157	235	382
Manual release	Non-locking					

Specifications

Bore size (mm)	6	10	15	20	25	32
Fluid	Air (Non-lube)					
Min. operating pressure	0.3MPa					
Max. operating pressure	0.7MPa					
Proof pressure	1.05MPa					
Ambient and fluid temperature	-10 to 60°C (No freezing)					
Piston speed ⁽¹⁾ (mm/s)	30 to 300	30 to 800	30 to 700		30 to 600	
Piping port	M5 X 0.8				Rc(PT)1/8	
Rod bearing	Slide bearing, Ball bushing bearing (Same dimensions)					
Cushion	The bumper is standard. (Both sides)					

Note 1) The maximum piston operating speeds given in the table above are for the extending side. The maximum piston operating speeds for the retracting side are approximately 70% of those of the extending side.

Weight

(kg)

Model	Standard stroke (mm)						
	10	20	30	40	50	75	100
CXSM6-*R	0.105	0.12	0.135	0.15	0.165	—	—
CXSL6-*R	0.105	0.12	0.135	0.15	0.165	—	—
CXSM10-*R	0.18	0.2	0.225	0.25	0.27	—	—
CXSL10-*R	0.18	0.2	0.225	0.25	0.27	—	—
CXSM15-*R	0.3	0.33	0.355	0.38	0.41	—	—
CXSL15-*R	0.32	0.35	0.375	0.4	0.43	—	—
CXSM20-*R	0.465	0.5	0.54	0.58	0.62	0.715	0.815
CXSL20-*R	0.485	0.52	0.56	0.60	0.64	0.735	0.835
CXSM25-*R	0.72	0.76	0.8	0.84	0.88	0.98	1.08
CXSL25-*R	0.73	0.77	0.81	0.85	0.89	0.99	1.09
CXSM32-*R	1.33	1.43	1.53	1.62	1.72	1.96	2.2
CXSL32-*R	1.35	1.45	1.55	1.64	1.74	1.98	2.22

⚠️ Precautions

Be sure to read before handling. Refer to p.0-39 to 0-46 for Safety Instructions and common precautions.

Installation

⚠️ Caution

During installation and adjustment

- ① Disengage the lock before installing and adjusting the cylinder. The lock could become damaged if the cylinder is installed with its lock engaged.
- ② Never adjust the stroke of the retraction side by using the damper bolt or an external stopper, as this will cause the lock to get stuck.

Disengagement of the lock

It is extremely dangerous to disengage the lock with a load applied because the cylinder could operate suddenly.

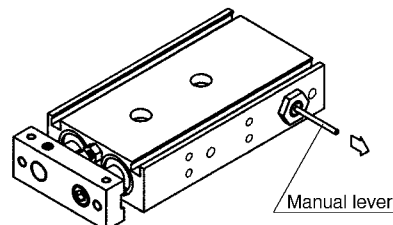
Control circuit

- ① To control the end lock style of this cylinder, use a 2 position solenoid valve with 4 or 5 ports. Avoid using it in combination with a 3 position solenoid valve (particularly the closed center metal seal style).
- ② Before starting, make sure to supply air to the retraction side to provide back pressure. 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.

Other details, such as the selection criteria, or precautions for handling the cylinder, including installation, piping, and environment, are the same as the

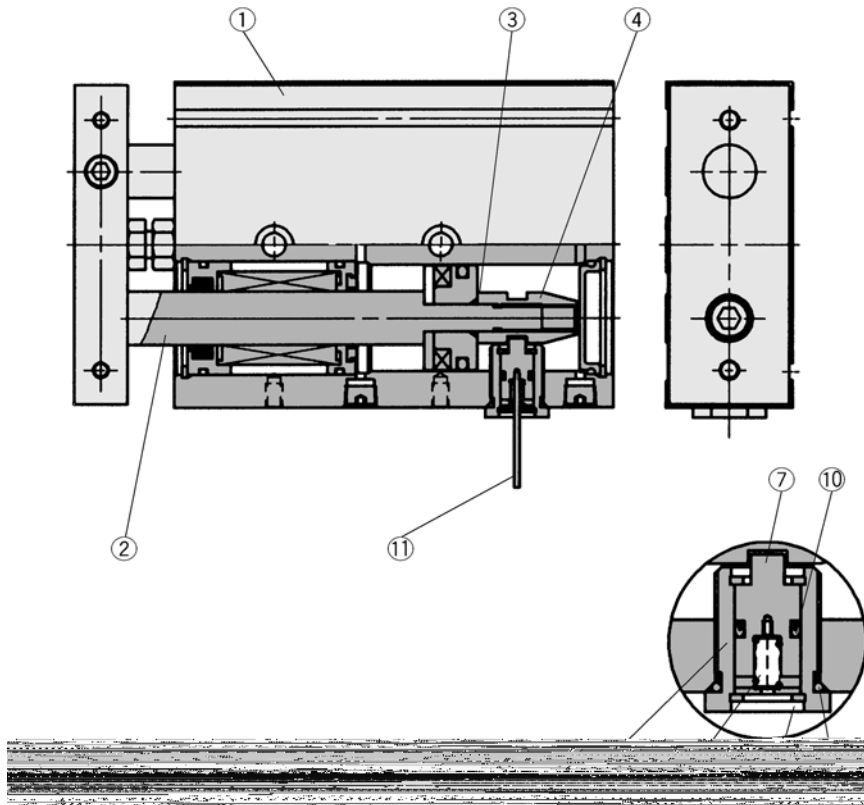
Manual Disengagement

- ① Insert the manual lever and screw it into the lock holder assembly.
- ② Pull the manual override lever in the direction of the arrow [↔]. Release the manual override lever to revert to the locked state.



- ③ A manual override lever (ø1.6 X 35ℓ; tip M1.6 X 0.35 X 3ℓ) is provided with the cylinder. However, if a manual override lever must be ordered separately, use the following part number: CXS06-48BK2777 (common for all sizes).

CXSM Construction/Slide Bearing: **ø6 to ø32**



Component Parts

No.	Description	Material	Notes
①	Housing	Aluminum alloy	Hard anodized
②	Piston rod B	Carbon steel	Hard chrome plated
③	O ring	NBR	
④	Lock rod	Special steel	
⑤	Set ring	Special steel	
⑥	Lock holder	Aluminum alloy	
⑦	Lock pin	Special steel	
⑧	Lock spring	Piano wire	
⑨	O ring	NBR	
⑩	Lock seal	NBR	
⑪	Manual lever	Special steel	

*Parts other than listed above are the same as the standard products.

Replacement Parts: Seal kits

Bore size(mm)	Kit No.	Contents
6	CXSR ^M 6-PS	Standard seals (refer to p.3.11-5), an O ring ⑨ and a lock seal ⑩ are included in a set.
10	CXSR ^M 10-PS	
15	CXSR ^M 15-PS	
20	CXSR ^M 20-PS	
25	CXSR ^M 25-PS	
32	CXSR ^M 32-PS	

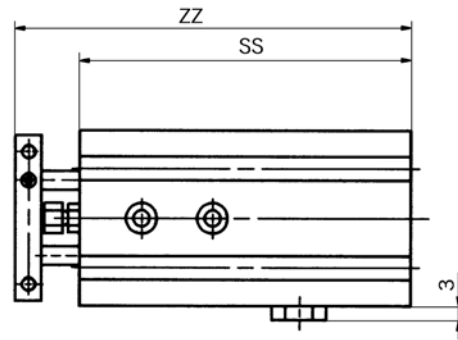
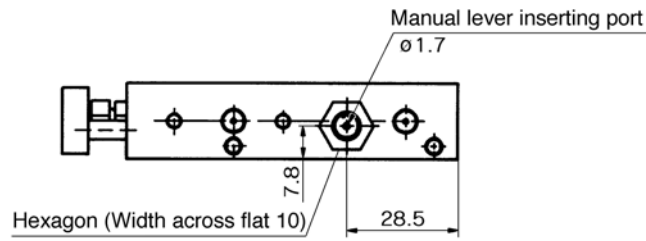
*The seal kit includes standard seals (refer to p.3.11-5), an O ring ⑨ and a lock seal ⑩. Order with the order numbers in compliant with respective tube bore size.

CL
MLG
CNA
CNG
MNB
CNS
CLS
CB
CV/MVG
CXW
CXS
CXT
MX
MXU
MXH
MXS
MXQ
MXF
MXW
MXP
MG
MGP
MGQ
MGG
MGC
MGF
MGZ
CY
MY

Series CXS

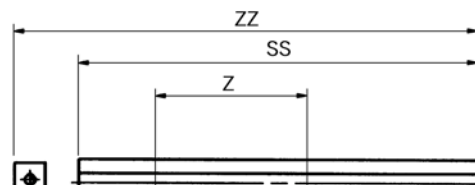
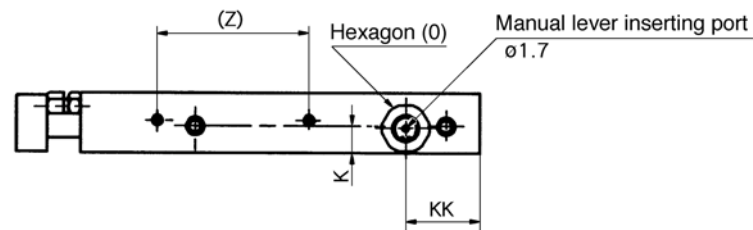
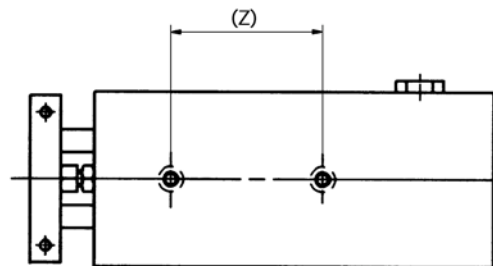
Dimensions

CXS□6-□R



Model	SS	ZZ
CXS ^M _L 6-10R	75	88.5
CXS ^M _L 6-20R	85	98.5
CXS ^M _L 6-30R	95	108.5
CXS ^M _L 6-40R	105	118.5
CXS ^M _L 6-50R	115	128.5

CXS□¹⁰/₁₅-□R



Model	K	O
CXS ^M _L 10-□R	6.5	Width across flat12
CXS ^M _L 15-□R	8.5	Width across flat13

Model	Symbol Stroke	KK					SS					Z					ZZ					
		10	20	30	40	50	10	20	30	40	50	10	20	30	40	50	10	20	30	40	50	
CXS ^M _L 10-□R		19.5		24.5			80	90	100	115	125	30	40		50			97	107	117	132	142
CXS ^M _L 15-□R		20.5					90	100	110	120	130	35			45		109	119	129	139	149	

*Dimensions other than the indicated above are the same as the standard specification.

Dual Rod Cylinder/Retracted Side End Lock *Series* **CXS**

Dimensions

CXS□²⁰□25-□R
32

CL

MLG

CNA

CNG

MNB

CNS

CLS

CB

CV/MVG

CXW

CXS

CXT

MX

MXU

MXH

MXS

MXQ

MXF

MXW

MXP

MG

MGP

MGQ

MGG

MGC

MGF

MGZ

CY

MY

(mm)

Model	O
CXS ^M 20-□R	Width across flat 13
CXS ^M 25-□R	Width across flat 16
CXS ^M 32-□R	Width across flat 19

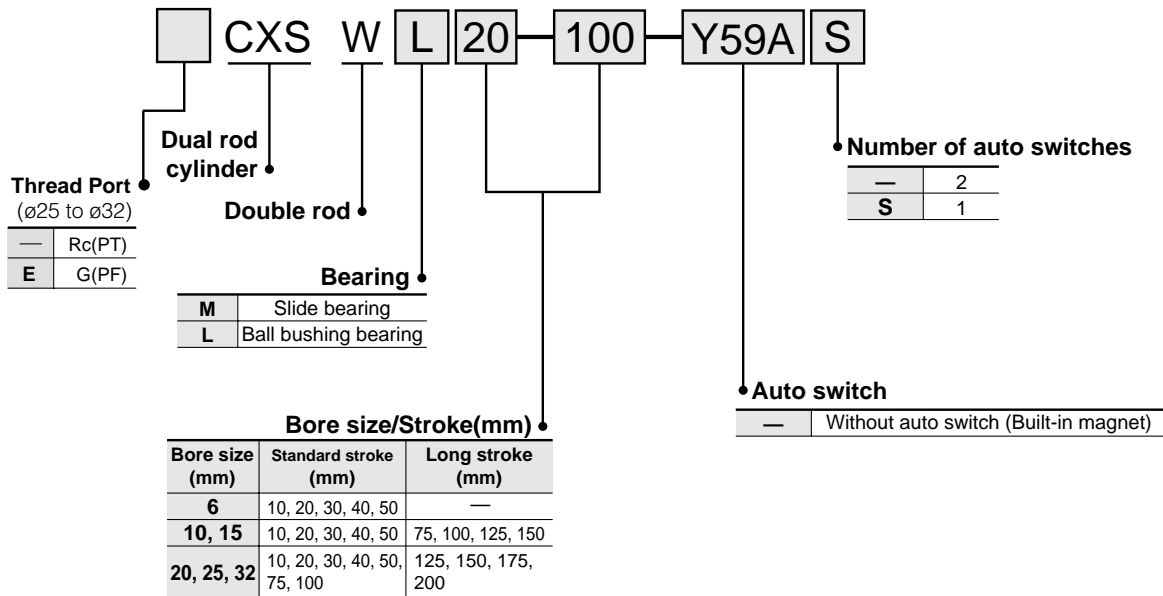
	KK	SS								Z	ZZ	
		75	100	10	20	30	40	50	75	100		
CXS 20-□R		27	22	100	110	120	130	140	170	190		
CXS 25-□R				107	117	132	142	147	172	197		
CXS 32-□R				49	122	132	142	152	162	192	232	

Dual Rod Cylinder/Double Rod

Series CXSW

ø6, ø10, ø15, ø20, ø25, ø32

How to Order



If the longer strokes than the standard specification are required, it is available by listing [-XB11] at the end of the model number.

Applicable Auto Switch/Refer to p.5.3-2 for further information on auto switch.

Style	Special function	Electrical entry	Indicator	Wiring (Output)	Load voltage		Model		Lead wire* (m)			Applicable load		
					DC	AC	Electrical entry		0.5 (-)	3 (L)	5 (Z)			
							Perpendicular	In-line						
Reed switch	—	Grommet	Yes	3 wire	—	5V	—	—	Z76	●	●	—	IC	Relay PLC
				2 wire	24V	12V	100V	—	Z73	●	●	●	—	
						5V, 12V	100V or less	—	Z80	●	●	—	IC	
Solid state switch	—	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	—	Y69A	Y59A	●	●	○	IC	Relay PLC
				3 wire (PNP)				Y7PV	Y7P	●	●	○		
				2 wire				Y69B	Y59B	●	●	○	—	
	3 wire (NPN)			Y7NWV	Y7NW	●	●	○	IC					
	Diagnostic indication (2 colour)			3 wire (PNP)	Y7PWV	Y7PW	●	●	○	—				
				2 wire	Y7BWV	Y7BW	●	●	○	—				
	Water resistant (2 colour)			2 wire	12V	—	Y7BA	—	●	○	—			

*Lead wire lengths 0.5m..... — Ex.) Y59A
 3m..... L Ex.) Y59AL
 5m..... Z Ex.) Y59AZ

*The auto switches marked with "○" are manufactured upon receipt of order.

Dual Rod Cylinder/Double Rod Series CXSW



Specifications

Bore size (mm)	6	10	15	20	25	32
Fluid	Air (Non-lube)					
Min. operating pressure	0.15MPa			0.1MPa		
Max. operating pressure	0.7MPa					
Proof pressure	1.05MPa					
Ambient and fluid temperature	-10 to 60°C (No freezing)					
Piston speed	50 to 500mm/s					
Piping port	M5 X 0.8				1/8	
Stroke adjustable range	0 to -10mm (Extension side: 5mm, Retraction side: 5mm)					
Bearing	Slide bearing, Ball bushing (Same dimensions)					
Cushion	The bumper is standard. (Both sides)					

Theoretical Force

Model	Rod size (mm)	Piston area (mm ²)	Operating pressure (N)						
			0.1	0.2	0.3	0.4	0.5	0.6	0.7
CXSW□6	4	31	4.6	6.2	9.3	12.4	15.5	18.6	21.7
CXSW□10	6	100	10	20	30	40	50	60	70
CXSW□15	8	252	25.2	50.4	75.6	101	126	151	176
CXSW□20	10	471	47.1	94.2	141	188	236	283	330
CXSW□25	12	756	75.6	151	227	302	378	454	529
CXSW□32	16	1206	121	241	362	482	603	724	844

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

Weight

Model	Standard stroke (mm) (kg)						
	10	20	30	40	50	75	100
CXSWM 6	0.11	0.13	0.14	0.16	0.17	—	—
CXSWL 6	0.12	0.13	0.15	0.16	0.18	—	—
CXSWM 10	0.24	0.26	0.28	0.30	0.32	0.37	0.42
CXSWL 10	0.25	0.27	0.29	0.31	0.33	0.38	0.43
CXSWM 15	0.43	0.45	0.48	0.51	0.54	0.61	0.68
CXSWL 15	0.47	0.50	0.52	0.55	0.58	0.65	0.72
CXSWM 20	0.71	0.74	0.78	0.82	0.85	0.95	1.04
CXSWL 20	0.75	0.79	0.82	0.86	0.90	0.99	1.08
CXSWM 25	1.06	1.11	1.17	1.22	1.28	1.41	1.55
CXSWL 25	1.07	1.12	1.18	1.23	1.29	1.42	1.56
CXSWM 32	2.04	2.12	2.21	2.29	2.38	2.59	2.81
CXSWL 32	2.06	2.15	2.23	2.32	2.41	2.62	2.83



Made to Order

Refer to p.5.4-1 and 5.4-102 concerning made to order specification of Series CXS.

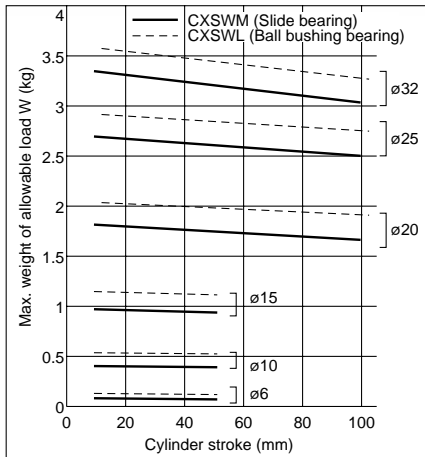
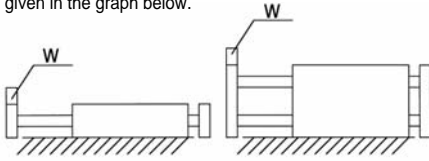
- CL
- MLG
- CNA
- CNG
- MNB
- CNS
- CLS
- CB
- CV/MVG
- CXW
- CXS
- CXT
- MX
- MXU
- MXH
- MXS
- MXQ
- MXF
- MXW
- MXP
- MG
- MGP
- MGQ
- MGG
- MGC
- MGF
- MGZ
- CY
- MY

Series CXSW

Operating Conditions

Max. movable load

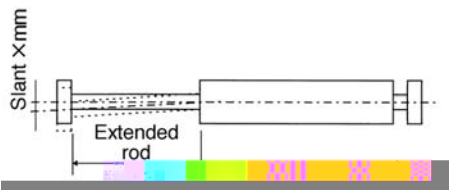
If the body is mounted as shown in the diagram, the value of the maximum load W must be below the value given in the graph below.



(Note) Among the operating conditions, contact SMC for details on the maximum load mass for the long stroke.

Deflection at the plate end

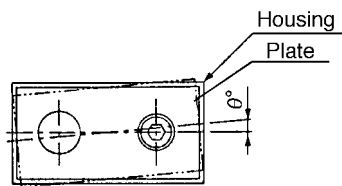
An approximate amount of tilt X that occurs at the tip of the plate in the non-load state is given in the graph below.



Cylinder bore size (mm)	6 to 32
CXSWM (Slide bearing)	±0.03mm
CXSWL (Ball bushing bearing)	

Non-rotating accuracy

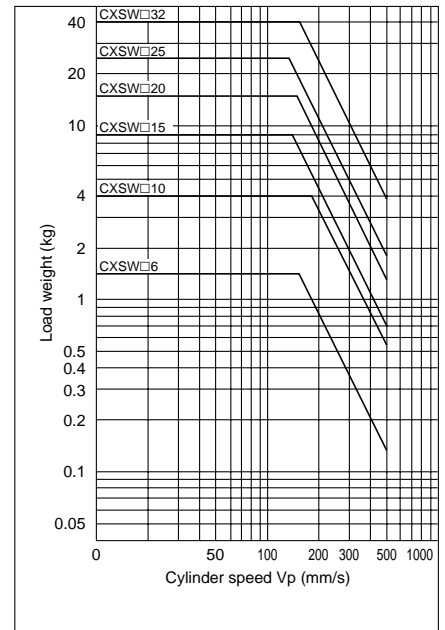
An approximate amount of non-rotating accuracy θ° in the non-load state is given in the graph below.



Cylinder bore size (mm)	6 to 32
CXSWM (Slide bearing)	±0.1°
CXSWL (Ball bushing bearing)	

Allowable kinetic energy

For vertical applications, operate the cylinder within the load and speed ranges given in the graph. Also for horizontal applications, observe the maximum load and operate the cylinder within the ranges given in the graph below. To regulate the cylinder speed, use a speed controller.



⚠️ Precautions

Be sure to read before handling. Consult SMC concerning non standard specifications.

Handling

⚠️ Warning

- Take precautions to prevent your fingers or hands from getting caught between the plate and the housing.

⚠️ Caution

- Make sure not to scratch or gouge the mounting surface of the housing and the mounting surface of the plates on both sides.
Failure to observe this precaution could affect the flatness of the mounting surface or the operational accuracy of the piston rod.

Installation

⚠️ Caution

- Make sure that the surface onto which the cylinder is to be mounted is flat (a flatness of 0.05 or less {reference value}). Although the cylinder can be mounted on any of its three sides, inadequate flatness of the surface on which the cylinder is to be mounted could affect the operational accuracy of the piston rods.
- 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.

Piping

⚠️ Caution

- Change the position of the plug for the air inlet in accordance with the operating conditions.
The dual rod cylinder provides two air inlets for each operating direction. Thus, change the position of the plug in accordance with the operating conditions. Make sure to check the plug for any air leaks. If there is a slight leakage, remove the plug, check the seat surface, and reinstall it.

Disassembly/Maintenance

⚠️ Caution

- Never operate the cylinder with its plate removed.
To remove the hexagon socket bolts from the end plate, the piston rod must be secured to prevent it from turning. When doing so, if the sliding portion of the piston rod is scratched, it could lead to a malfunction.
- To disassemble or to reinstall, contact SMC or refer to the separate operation manual.

Stroke Adjustment

⚠️ Caution

- After adjusting the stroke, securely tighten the hexagon nut to prevent it from loosening.
A bolt for adjusting the stroke by 0 to -5mm is provided on the retraction (IN) side of the piston rod, and a bolt for adjusting the stroke by 0 to -5mm is provided on the extension (OUT) side of the piston rod. The stroke can be adjusted simply by loosening the hexagon nut. After the adjustment, securely tighten the hexagon nut to prevent it from loosening.
- Never operate the cylinder with its bumper bolt removed. Also, never operate the cylinder after further tightening the bumper bolt by merely removing the nut.

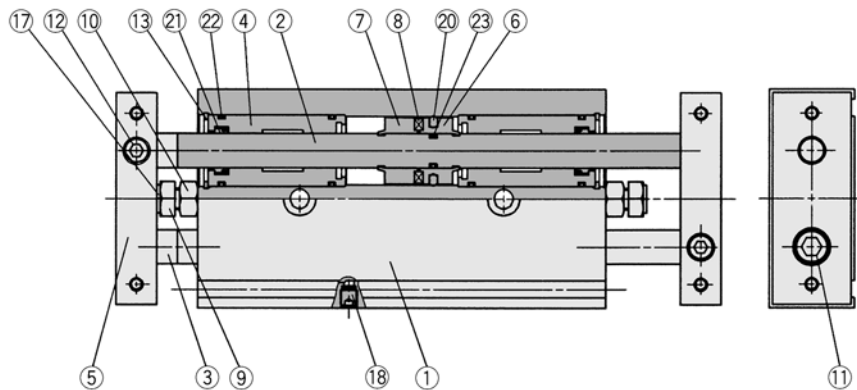
- If the bumper bolt is removed, the piston will come in contact with the head cover, which could damage the cylinder.
 - Also, if the bumper bolt is tightened, the piston seal could get caught by the stepped portion of the tube, which could damage the seal.
- The bumper at the tip of the bumper bolt is replaceable. If it becomes collapsed or lost, use the part number listed below to re-order.

Model	CXSW6, 10, 15	CXSW20, 25	CXSW32
Part No.	CXS10-34A 28747	CXS20-34A 28749	CXS32-34A 28751
Quantity	1 piece each		

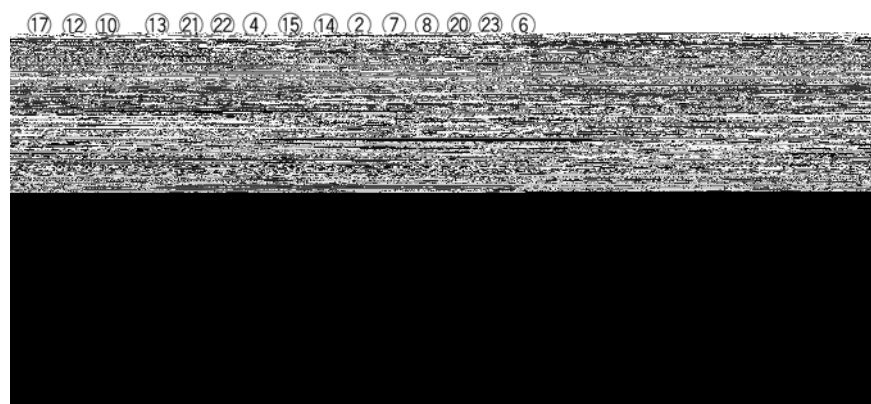
Dual Rod Cylinder/Double Rod Series CXSW

Construction

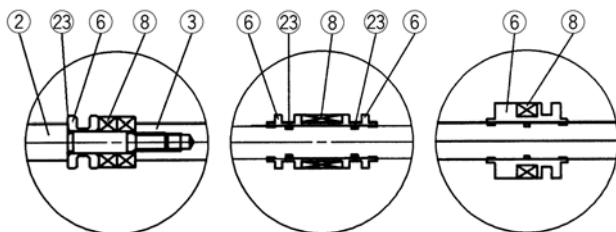
CXSWM (Slide bearing)



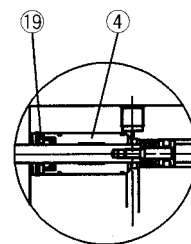
CXSWL (Ball bushing bearing)



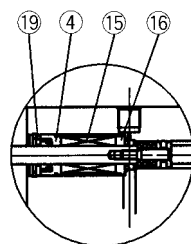
(Piston part)



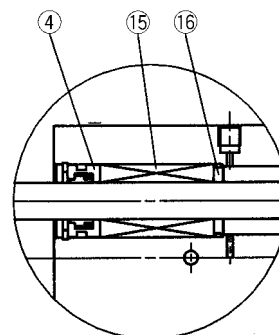
CXSW□6 CXSW□10 CXSW□25/32



CXSWM6



CXSWL6



CXSWL10/15

Component Parts

No.	Description	Material	Notes
①	Housing	Aluminum ally	Hard anodized
②	Piston rod A	Carbon steel	Hard chrome plated
③	Piston rod B	Carbon steel	hard chrome plated
④	Rod cover	Aluminum bearing alloy	
⑤	Plate	Aluminum alloy	Hard anodized
⑥	Piston A	Aluminum alloy	Chromated
⑦	Piston B	Aluminum alloy	Chromated
⑧	Magnet	Magnet	
⑨	Bumper bolt	Carbon steel	Nickel plated
⑩	Hexagon nut	Carbon steel	Nickel plated
⑪	Hex. socket head cap bolt	Chromium steel	Nickel plated
⑫	Hex. socket head cap screw	Chromium steel	Nickel plated

Note) The piston rods of Series CXSL are quenched.

Replacement Parts: Seal Kits

Bore size (mm)	Kit No.	Contents
6	CXSW ^M _L 6-PS	A piston seal ⑳, a rod seal ㉑ and an O ring ㉒ are included.
10	CXSW ^M _L 10-PS	
15	CXSW ^M _L 15-PS	
20	CXSW ^M _L 20-PS	
25	CXSW ^M _L 25-PS	
32	CXSW ^M _L 32-PS	

Component Parts

No.	Description	Material	Notes
⑬	Set ring	Special steel	Nickel plated
⑭	Bumper holder	Aluminum bearing alloy	
⑮	Ball bushing	—	
⑯	Bearing interface	Aluminum bearing alloy	
⑰	Bumper	Polyurethane	
⑱	Plug	Chrome steel	Nickel plated
⑲	Seal retainer	Aluminum alloy	
⑳*	Piston seal	NBR	
㉑*	Rod seal	NBR	
㉒*	O ring	NBR	
㉓	O ring	NBR	

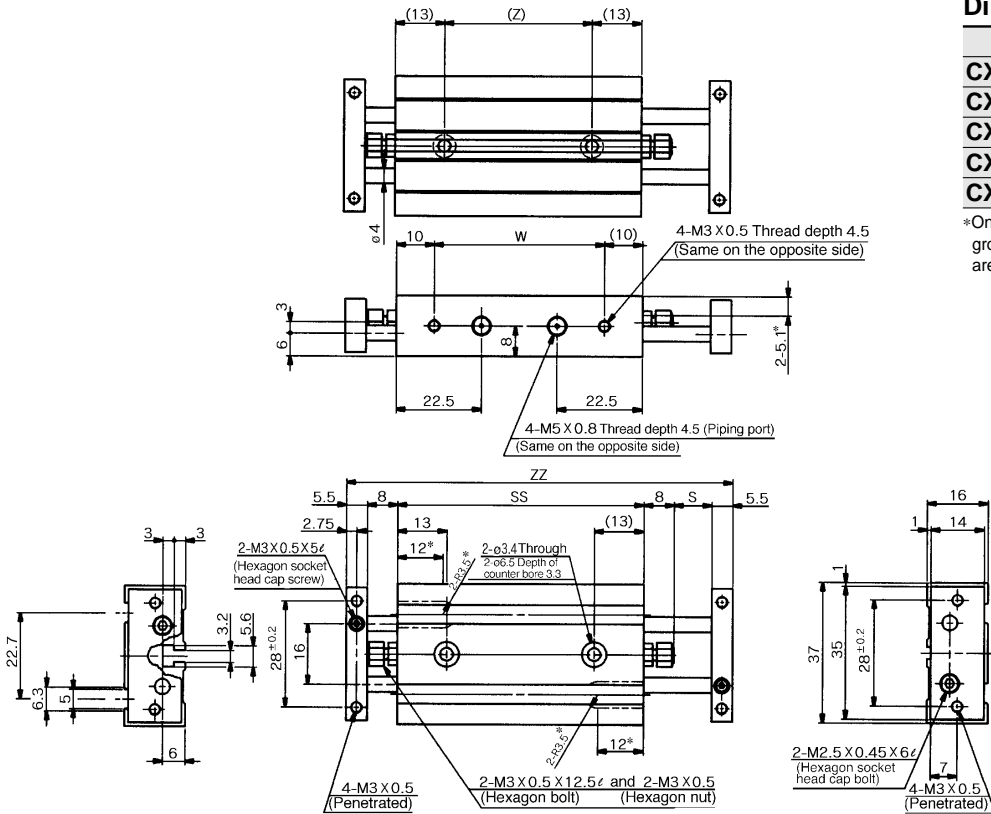
*Seals ⑳ to ㉒ comprise a set. To order them, use the order number given in the table above. However, in the case of CXSWL15, there are two types of O rings for ㉒. There is only one type for other sizes.

- CL
- MLG
- CNA
- CNG
- MNB
- CNS
- CLS
- CB
- CVMVG
- CXW
- CXS**
- CXT
- MX
- MXU
- MXH
- MXS
- MXQ
- MXF
- MXW
- MXP
- MG
- MGP
- MGQ
- MGG
- MGC
- MGF
- MGZ
- CY
- MY

Series CXSW

Dimensions

CXSW□6

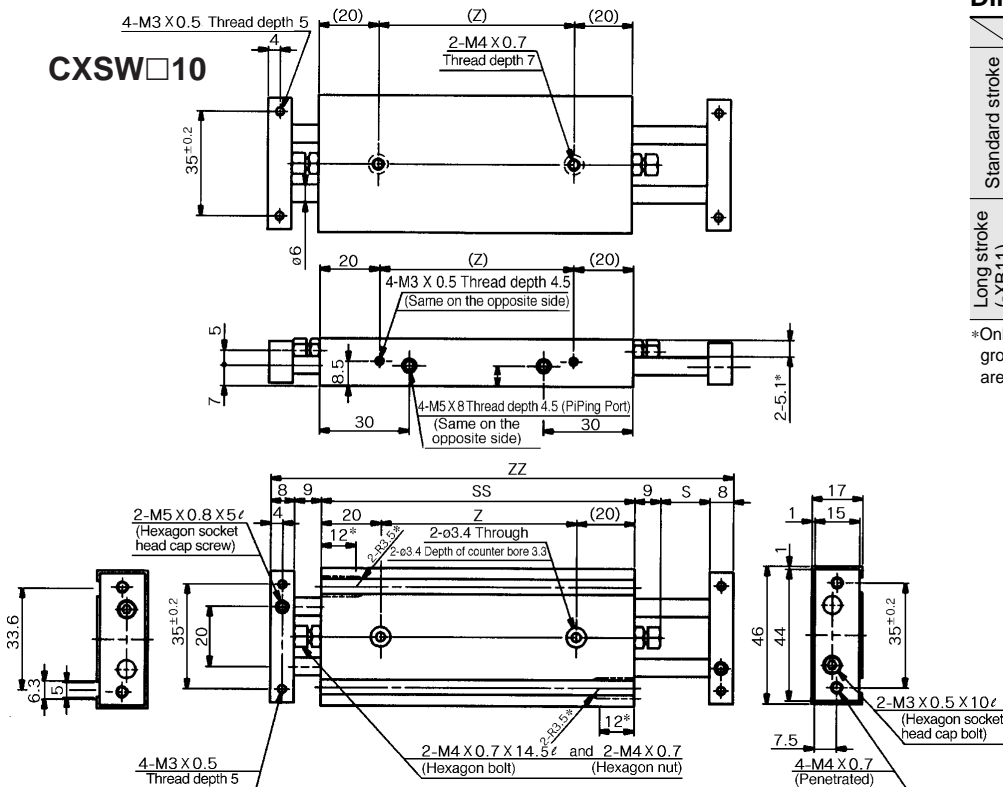


Dimensions

Model	S	SS	ZZ	Z	W
CXSW□6-10	10	66	103	40	46
CXSW□6-20	20	76	123	50	56
CXSW□6-30	30	86	143	60	66
CXSW□6-40	40	96	163	70	76
CXSW□6-50	50	106	183	80	86

Only the CXSW□6-10 and the CXSW□6-20 have a groove cut out for installing an auto switch. (The dimensions are marked "").

CXSW□10



Dimensions

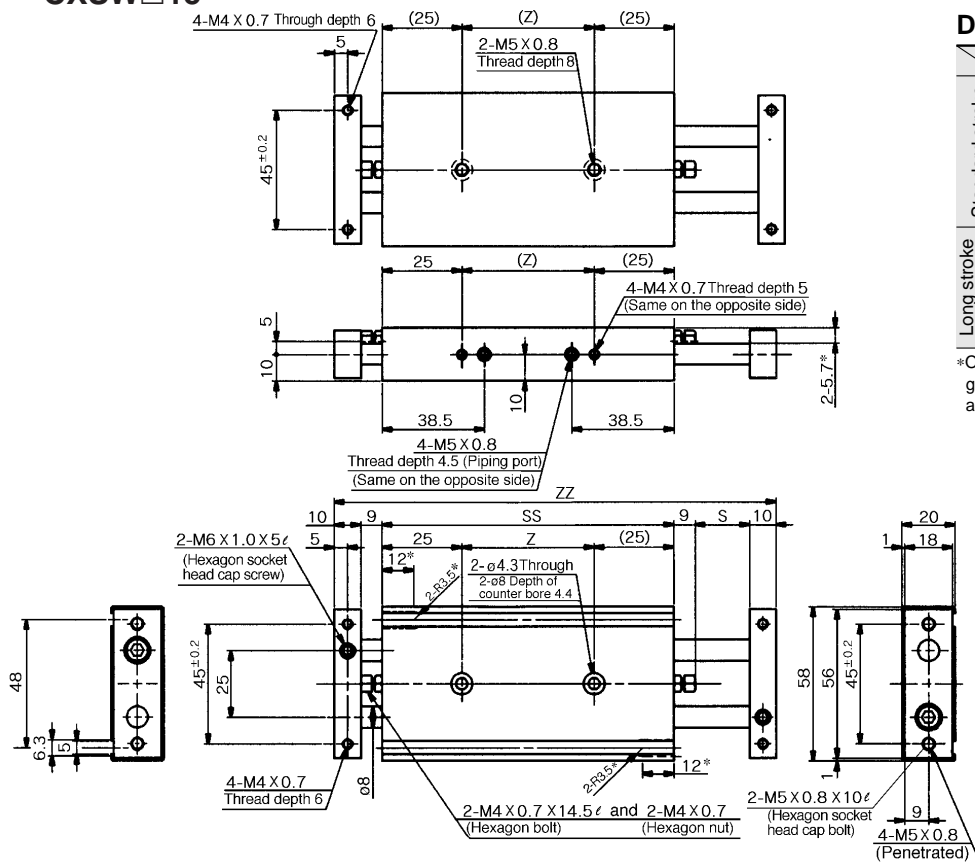
	Model	S	SS	ZZ	Z
Standard stroke	CXSW□10-10	10	92	136	52
	CXSW□10-20	20	102	156	62
	CXSW□10-30	30	112	176	72
	CXSW□10-40	40	122	196	82
	CXSW□10-50	50	132	216	92
Long stroke (-XB11)	CXSW□10-75	75	157	266	117
	CXSW□10-100	100	182	316	142
	CXSW□10-125	125	207	366	167
	CXSW□10-150	150	232	416	192

Only the CXSW□10-10 and the CXSW□10-20 have a groove cut out for installing auto switches. (The dimensions are marked "").

Dual Rod Cylinder/Double Rod Series CXSW

Dimensions

CXSW□15

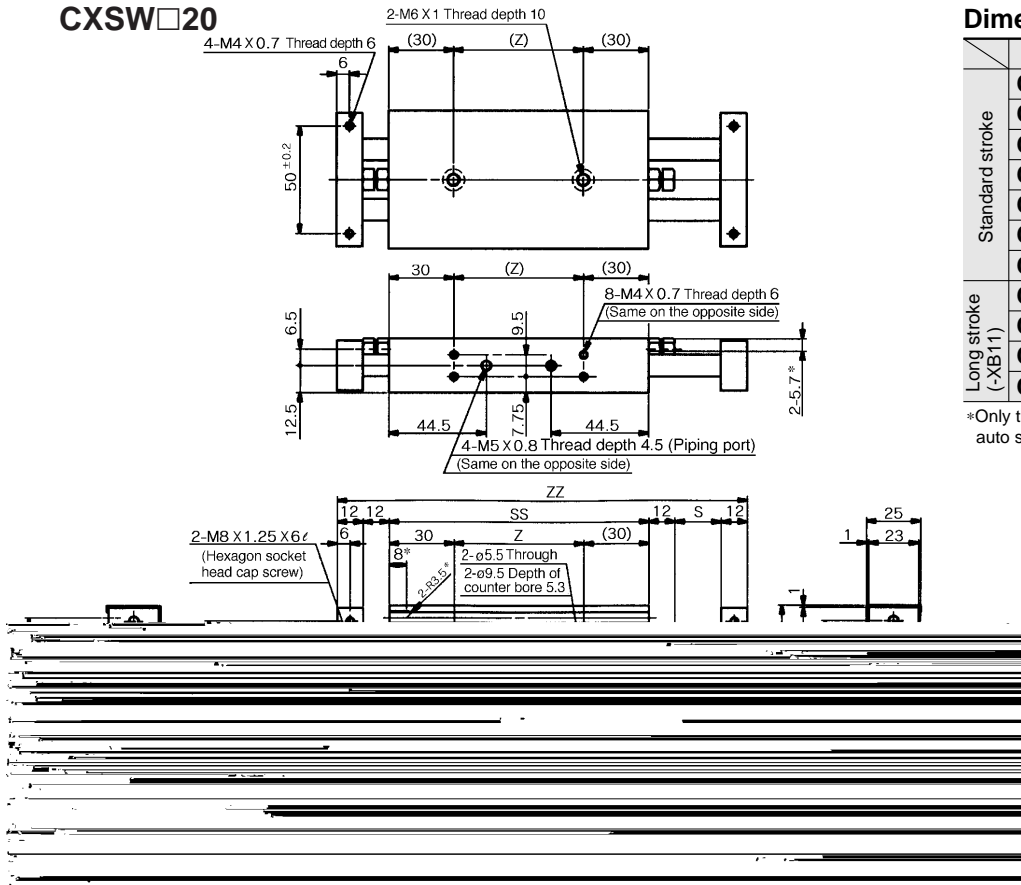


Dimensions

		Model				(mm)
		S	SS	ZZ	Z	
Standard stroke	CXSW□15-10	10	105	153	55	CL
	CXSW□15-20	20	115	173	65	MLG
	CXSW□15-30	30	125	193	75	CNA
	CXSW□15-40	40	135	213	85	CNG
Long stroke (-XB11)	CXSW□15-50	50	145	233	95	MNB
	CXSW□15-75	75	170	283	120	CNS
	CXSW□15-100	100	195	333	145	CLS
	CXSW□15-125	125	220	383	170	CB
	CXSW□15-150	150	245	433	195	CVMVG

Only the CXSW□15-10 and the CXSW□15-20 have a groove cut out for installing auto switches. (The dimensions are marked "".)

CXSW□20



Dimensions

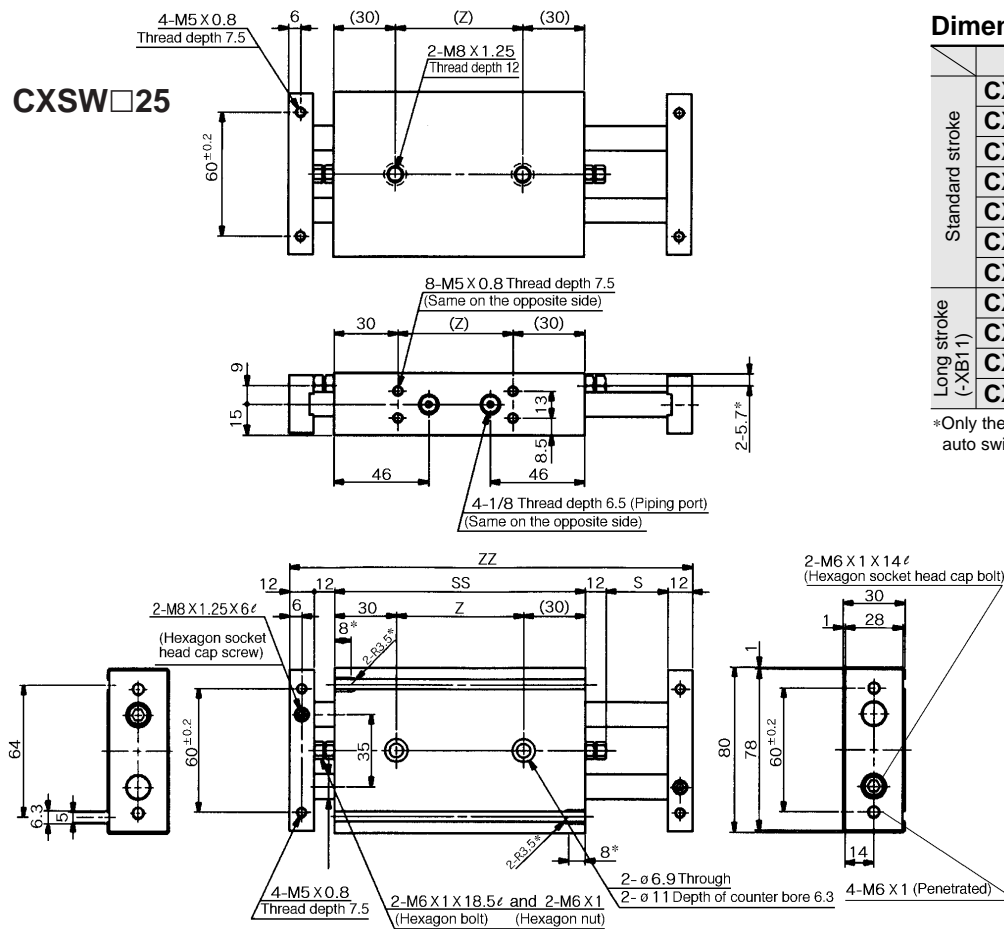
		Model				(mm)
		S	SS	ZZ	Z	
Standard stroke	CXSW□20-10	10	120	178	60	MXS
	CXSW□20-20	20	130	198	70	MXQ
	CXSW□20-30	30	140	218	80	MXF
	CXSW□20-40	40	150	238	90	MXW
	CXSW□20-50	50	160	258	100	MXP
	CXSW□20-75	75	185	308	125	MG
	CXSW□20-100	100	210	358	150	MGP
Long stroke (-XB11)	CXSW□20-125	125	235	408	175	MGQ
	CXSW□20-150	150	260	458	200	MGG
	CXSW□20-175	175	285	508	225	MGC
	CXSW□20-200	200	310	558	250	MGF

Only the CXSW□20-10 has a groove cut out for installing auto switches. (The dimensions are marked "".)

Series CXSW

Dimensions

CXSW□25

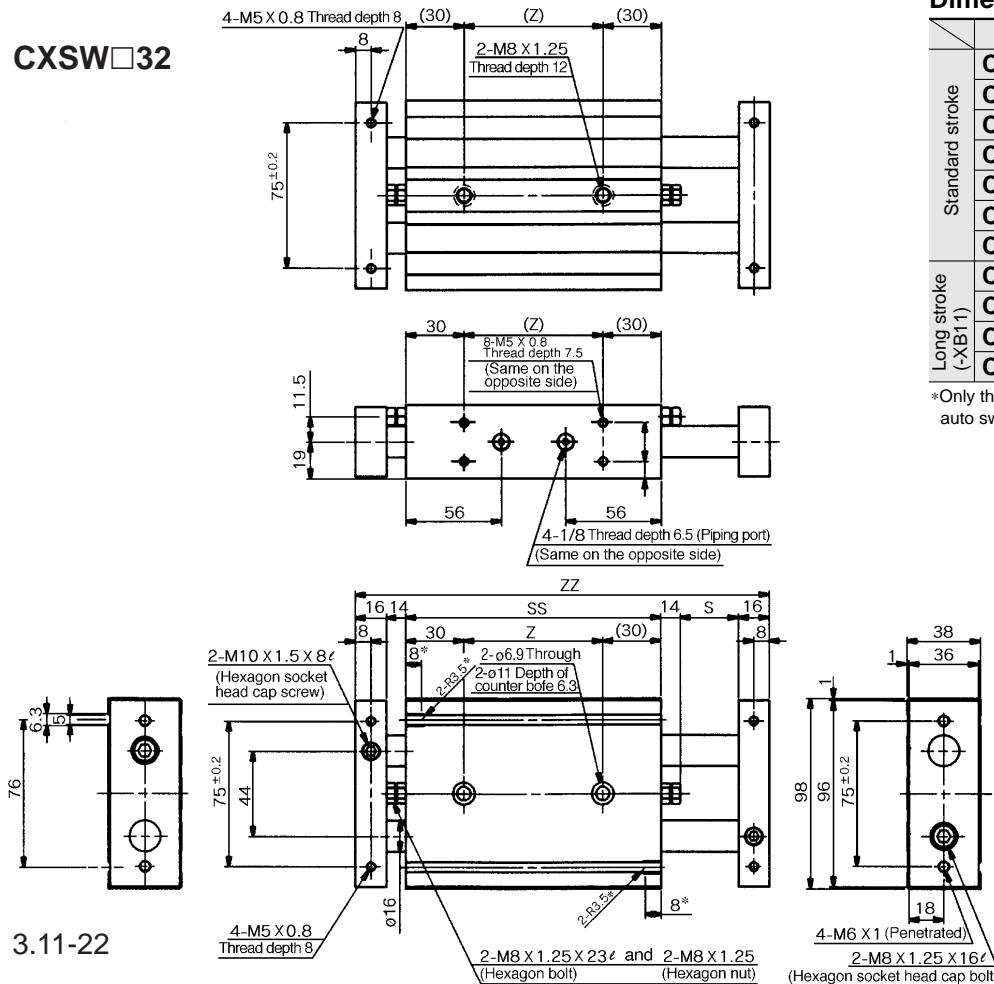


Dimensions

		Model				(mm)			
Standard stroke	(-XB1)	S	SS	ZZ	Z	S	SS	ZZ	Z
		CXSW□25-10	10	122	180	62			
CXSW□25-20	20	132	200	72					
CXSW□25-30	30	142	220	82					
CXSW□25-40	40	152	240	92					
CXSW□25-50	50	162	260	102					
CXSW□25-75	75	187	310	127					
CXSW□25-100	100	212	360	152					
Long stroke	(-XB1)	CXSW□25-125	125	237	410	177			
		CXSW□25-150	150	262	460	202			
		CXSW□25-175	175	287	510	227			
		CXSW□25-200	200	312	560	252			

Only the CXSW□25-10 has a groove cut out for installing auto switches. (The dimensions are marked "").

CXSW□32



Dimensions

		Model				(mm)			
Standard stroke	(-XB1)	S	SS	ZZ	Z	S	SS	ZZ	Z
		CXSW□32-10	10	143	213	83			
CXSW□32-20	20	153	233	93					
CXSW□32-30	30	163	253	103					
CXSW□32-40	40	173	273	113					
CXSW□32-50	50	183	293	123					
CXSW□32-75	75	208	343	148					
CXSW□32-100	100	233	393	173					
Long stroke	(-XB1)	CXSW□32-125	125	258	443	198			
		CXSW□32-150	150	283	493	223			
		CXSW□32-175	175	308	543	248			
		CXSW□32-200	200	333	593	273			

Only the CXSW□32-10 has a groove cut out for installing auto switches. (The dimensions are marked "").