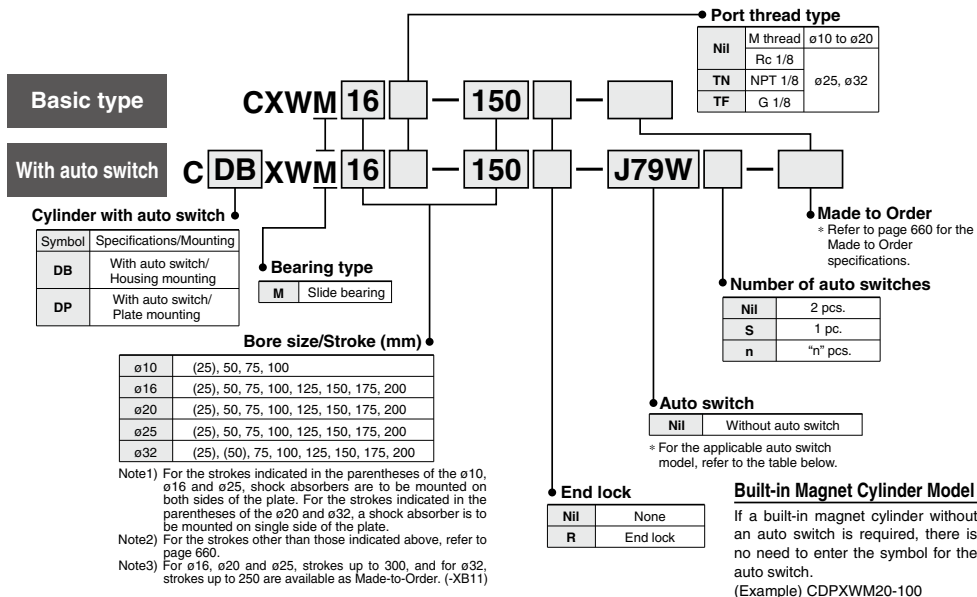


Slide Unit: Built-in Shock Absorber Slide Bearing Type

CXWM Series

ø10, ø16, ø20, ø25, ø32

How to Order



Applicable Auto Switches

Refer to pages 1119 to 1245 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Rail mounting		Applicable cylinder size		Lead wire length (m) *				Pre-wired connector	Applicable load		
					DC	AC	Perpendicular	In-line	Housing mounting	Plate mounting	0.5 (Nil)	3 (L)	5 (Z)	None (N)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	F7NV	F79	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	●	●	○	—	○	IC circuit		
		3-wire (PNP)		F7PV		F7P	●	●			○	—	○	—				
		Connector		2-wire		12 V	F7BV	J79			●	●	○	—	○	—		
	Diagnostic indication (2-color indicator)	Grommet		3-wire (NPN)	24 V	5 V, 12 V	F7NWV	F79W			●	●	○	—	○	IC circuit		
				3-wire (PNP)		—	F7PW	●			●	○	—	○	—			
		Water resistant (2-color indicator)		2-wire		12 V	F7BWV	J79W			●	●	○	—	○	—		
Reed auto switch	—	Grommet	Yes	4-wire (NPN)	24 V	5 V, 12 V	F7BAV***	F7BA***	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	—	—	—	—	○	IC circuit		
				3-wire (NPN equivalent)		—	5 V	—			F79F	●	●	○	—	○	IC circuit	
				—		—	200 V	A72			A72H	●	●	○	—	○	—	
		Connector		No	2-wire	24 V	12 V	100 V or less			A73	A73H	●	●	○	—	○	—
							5 V, 12 V	—			A73C	A80H	●	●	○	—	○	IC circuit
							5 V, 12 V	24 V or less			A80C	—	●	●	○	—	○	—
Grommet	No	2-wire	24 V	5 V	100 V or less	—	E76A	ø10	—	●	●	○	—	○	IC circuit			
				12 V	100 V	E73A	—			●	●	○	—	○	—			
				5 V, 12 V	—	E80A	—			●	●	○	—	○	IC circuit			

*** Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Consult with SMC regarding water resistant types with the above model numbers.

* Lead wire length symbols: 0.5 m Nil (Example) F79W
3 m L (Example) F79WL
5 m Z (Example) F79WZ
None N (Example) J79CN

* Solid state auto switches marked with "○" are produced upon receipt of order.
** It is impossible to mount solid state switches to the housing mounting ø10.

• Since there are other applicable auto switches than listed, refer to page 703 for details.
• For details about auto switches with pre-wired connector, refer to pages 1192 and 1193.
• Auto switches are shipped together (not assembled).

CXWM Series

Built-in shock absorber

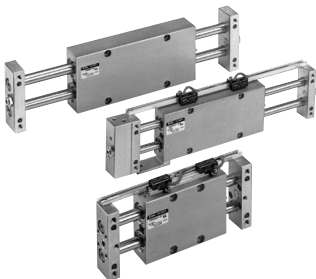
This is a built-in shock absorber type in which the shock absorber is enclosed in the housing. Compared to the CX2 series with shock absorber, this type achieves space savings in the longitudinal direction (except 25 mm stroke).

Dramatically reduced installation labor

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 labor 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.



Made to Order: Individual Specifications
(For details, refer to pages 706 to 708.)

Symbol	Specifications
-X138	Adjustable stroke
-X146	Hollow piston rod
-X168	Helical insert thread
-X169	2 built-in magnets

Made to Order Specifications

[Click here for details](#)

Symbol	Specifications
-XB11	Long stroke type
-XB13	Low speed cylinder (5 to 50 mm/s)
-XC22	Fluororubber seal

Moisture Control Tube IDK Series



When operating an actuator with a small diameter and a short stroke at a high frequency, the dew condensation (water droplet) may occur inside the piping depending on the conditions.

Simply connecting the moisture control tube to the actuator will prevent dew condensation from occurring. For details, refer to [the IDK series in the Best Pneumatics No. 6](#).

Specifications

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

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

Maximum Load Weight/Non-rotating Accuracy/Maximum Holding Force

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

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

Shock Absorber Specifications

Shock absorber ⁽¹⁾	RB0805-X552	RB0805	RB1006-X552	RB1006	RB1411-X552	RB1411
Applicable slide unit	CXWM10/16-□□		CXWM20/25-□□		CXWM32-□□	
Maximum energy absorption (J)	0.98		3.92		14.7	
Stroke absorption (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 range (°C)			-10 to 80			
Spring force (N)	Extended Retracted	1.96 3.83	4.22 6.18	6.86 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 type of 25 and 50 strokes have the screw attached specification.

Note 2) It denotes the values at the maximum energy absorption per one cycle. Therefore, the operating frequency can be increased according to the energy absorption.

* The shock absorber service life is different from that of the cylinder depending on the operating conditions. Refer to the RB series Specific Product Precautions for the replacement period.

Theoretical Output

(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 output (N) = Pressure (MPa) x Piston area (mm²)

Standard Stroke

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 side plate mounting type.

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

Construction: ø10, ø16, ø25

Component Parts

No.	Description	Material	Note
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	Adjustment bolt	Chromium steel	Nickel plated
8	Set screw (For fixing rods)	Chromium steel	Nickel plated
9	Set screw (For fixing shock absorbers)	Stainless steel	
10	Retaining ring	Carbon tool steel	Phosphate coated
11	Plug	Brass	Nickel plated
12	Magnet	—	ø5
13	Set screw for seal	Chromium steel	Nickel plated
14	Spring	Stainless steel	
15	Type CR retaining ring	Carbon tool steel	
16	Round type R retaining ring	Carbon tool steel	Phosphate coated
17	Shock absorber	—	(RB0805-XS52 or RB1006-XS52)
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	

Replacement Parts: Seal Kit Cylinder Body

Model	Kit no.	Contents
CXWM10	CXWM10-PS	Set of nos. above 20, 21, 23
CXWM16	CXWM16-PS	
CXWM25	CXWM25-PS	

* Seal kit includes 20, 21, 23. Order the seal kit, based on each bore size.
(The piston gasket 22 is not replaceable.)

* Since the seal kit does not include a grease pack, order it separately.
Grease pack part no.: GR-S-010 (10 g)

Component Parts: With End Lock

No.	Description	Material	Note
24	Locking body	Aluminum alloy	Hard anodized
25	Lock finger	Alloy tool steel	Nickel plated after quenched
26	Lock piston	Carbon tool steel	Electroless nickel plated after quenched
27	Rod cover	Aluminum alloy	
28	Return spring	Spring steel	Zinc chromated
29	Adjustment bolt	Chromium 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 type R retaining ring	Carbon tool steel	Phosphate coated
37	Lock nut	Carbon steel	Nickel plated
38	Plug	Chromium steel	Nickel plated

Replacement Parts: Seal Kit End Lock

Model	Kit no.	Contents
CXWM10	CXWM10R-PS	Set of nos. above 30, 31, 32, 35
CXWM16	CXWM16R-PS	
CXWM25	CXWM25R-PS	

* Seal kit includes 30, 31, 32, 35. Order the seal kit, based on each bore size.

* Since the seal kit does not include a grease pack, order it separately.
Grease pack part no.: GR-S-010 (10 g)

CX2

CXW

CXT

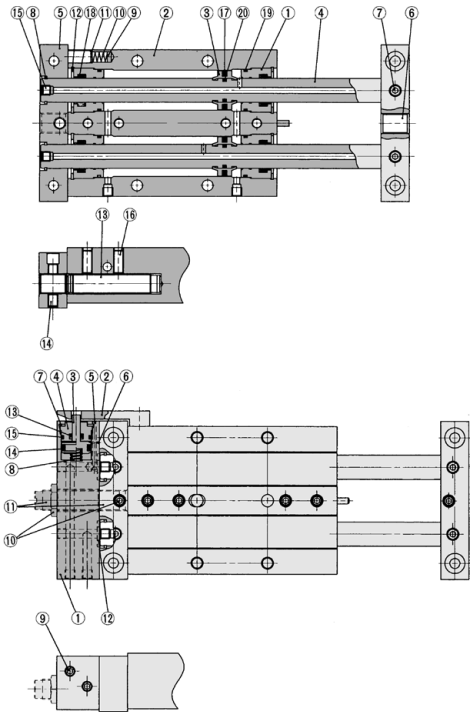
CXSJ

CXS

D-□

-X□

Construction: $\varnothing 20, \varnothing 32$



With end lock

Component Parts

No.	Description	Material	Note
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	Adjustment bolt	Chromium steel	Nickel plated
7	Hexagon socket head set screw	Chromium steel	Nickel plated
8	Retaining ring	Tool steel	Phosphate coated
9	Magnet	—	
10	Spring	Stainless steel	
11	Type CR retaining ring	Carbon tool steel	
12	Round type R retaining ring	Carbon tool steel	Phosphate coated
13	Shock absorber	—	RB1006-X552, RB1411-X552
14	Hexagon socket head set screw	Chromium steel	Nickel plated
15	Hexagon socket head plug	Chromium steel	Nickel plated
16	Hexagon socket head set screw	Chromium steel	Nickel plated
17	Piston seal	NBR	
18	Rod seal	NBR	
19	Cylinder tube gasket	NBR	
20	Piston gasket	NBR	

Replacement Parts: Seal Kit
Cylinder Body

Model	Kit no.	Contents
CXWM20	CXWM20-PS	Set of nos. above 17, 18, 19
CXWM32	CXWM32-PS	

* Seal kit includes 17, 18, 19. Order the seal kit, based on each bore size.
(The piston gasket 20 is not replaceable.)
* Since the seal kit does not include a grease pack, order it separately.
Grease pack part no.: GR-S-010 (10 g)

Component Parts: With End Lock

No.	Description	Material	Note
1	Locking body	Aluminum alloy	Hard anodized
2	Lock finger	Alloy tool steel	Nickel plated 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 type R retaining ring	Carbon tool steel	Phosphate coated
8	Return spring	Spring steel	Zinc chromated
9	Plug	Chromium steel	Nickel plated
10	Hexagon nut	Chromium steel	Nickel plated
11	Adjustment bolt	Carbon steel	Nickel plated
12	Body gasket	Chromium steel	Nickel plated
13	Rod seal	NBR	
14	Piston seal	NBR	
15	O-ring	NBR	

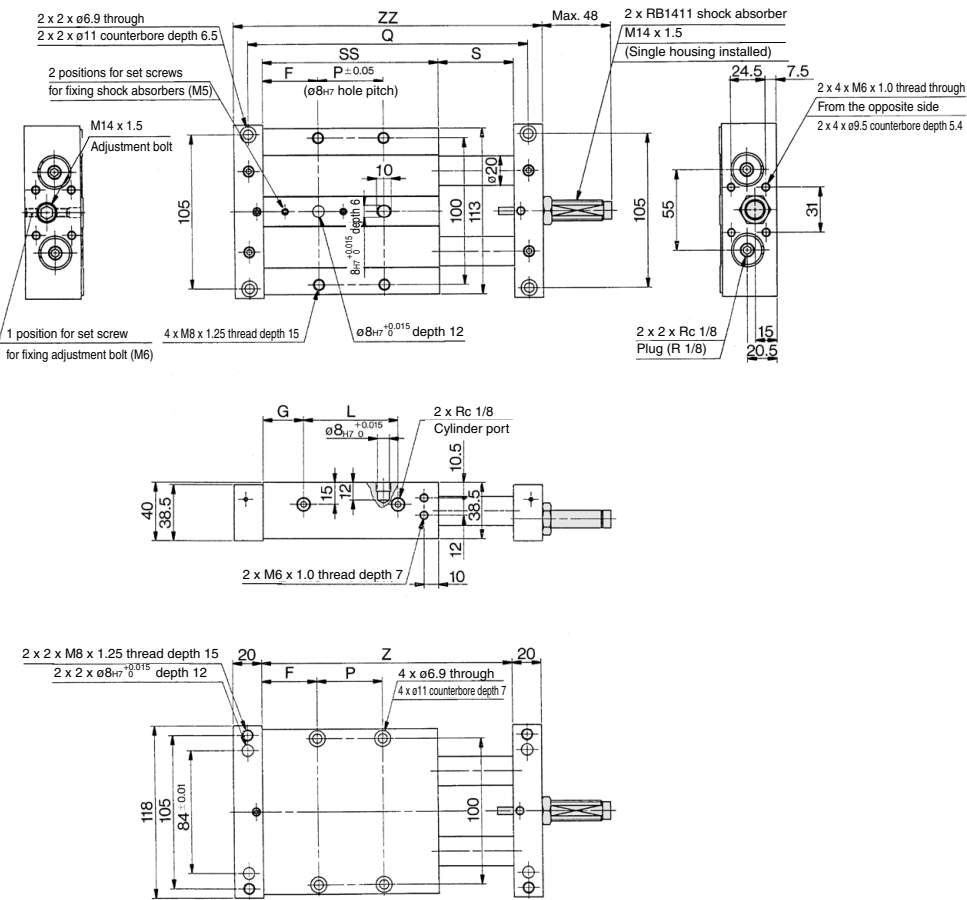
Note) The strokes indicated in the parentheses are of CXWM20, and CXWM32 includes the strokes indicated in the parentheses.

Replacement Parts: Seal Kit
End Lock

Model	Kit no.	Contents
CXWM20	CXWM20R-PS	Set of nos. above 12, 13, 14, 15
CXWM32	CXWM32R-PS	

* Seal kit includes 12, 13, 14, 15. Order the seal kit, based on each bore size.
* Since the seal kit does not include a grease pack, order it separately.
Grease pack part no.: GR-S-010 (10 g)

ø32 Basic Type: CXWM32-Stroke/25, 50



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