

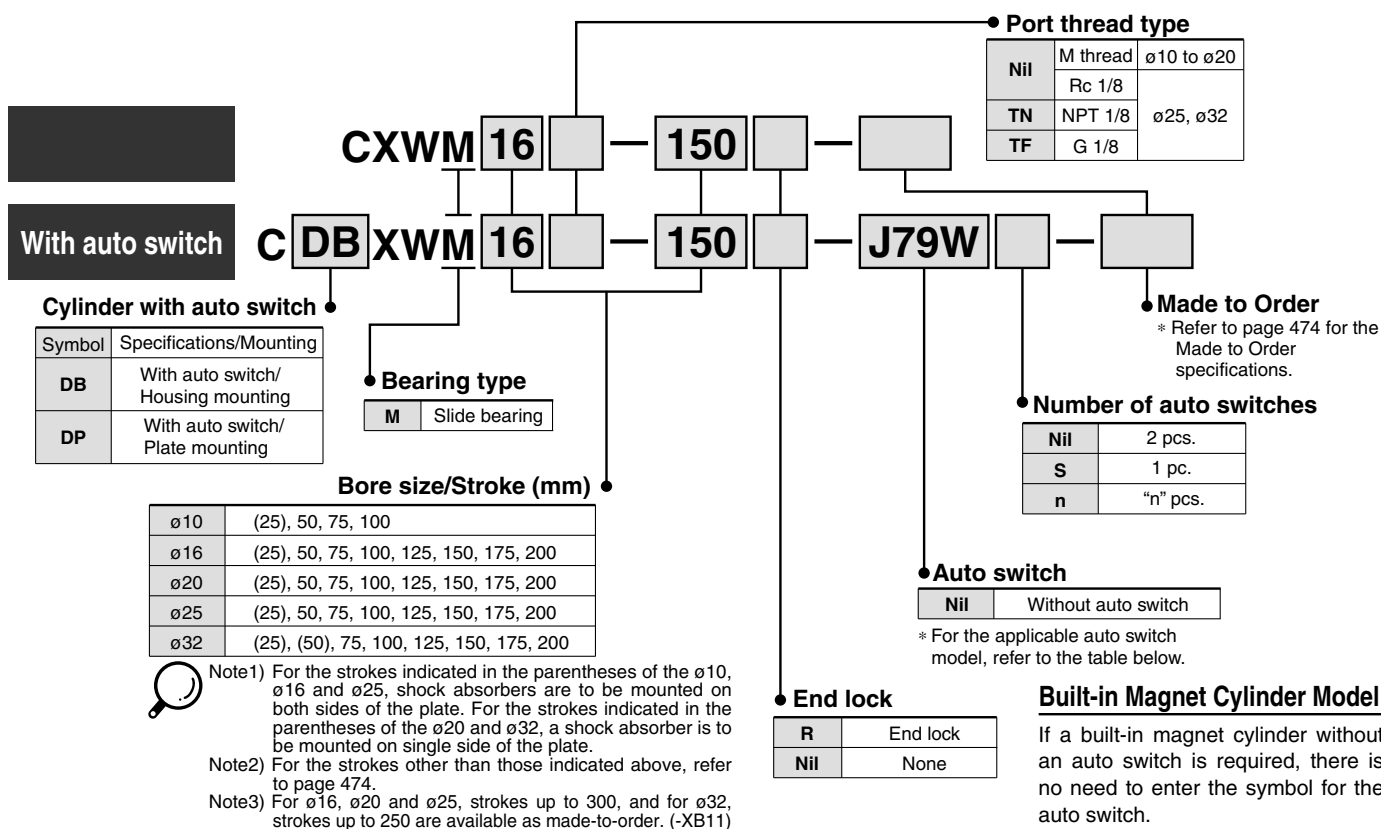
# Slide Unit: Built-in Shock Absorber

## Slide Bearing Type

# Series CXWM

ø10, ø16, ø20, ø25, ø32

### How to Order



**Applicable Auto Switch**/Refer to pages 1719 to 1827 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 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	Relay, PLC					
		3-wire (PNP)		F7PV				F7P	●			●	○	—	○								
	Diagnostic indication (2-color indication)	Connector		2-wire				12 V	F7BV			J79	●	●	○	—	○		—				
		Grommet		3-wire (NPN)				5 V, 12 V	F7NWW			F79W	●	●	○	—	○			IC circuit			
				3-wire (PNP)	—	F7PW	●		●			○	—	○									
				2-wire	12 V	F7BWW	J79W	●	●			○	—	○	—								
				Water resistant (2-color indication)	With diagnostic output (2-color indication)	4-wire (NPN)	5 V, 12 V	—	F79F			—	●	●		○	—		○	IC circuit			
		3-wire (NPN equivalent)		5 V		—	A76H	●	●			○	—	○	IC circuit								
Reed switch	—	Grommet	Yes	2-wire	24 V	—	200 V	A72	A72H	ø16 ø20 ø25 ø32	ø10 ø16 ø20 ø25 ø32	●	●	—		—	—	—					
						—	100 V	A73	A73H			●	●	—	—	—	—						
						5 V, 12 V	100 V or less	A80	A80H			●	●	—	—	—			IC circuit				
						12 V	—	A73C	—			●	●	—	—	—							
		Connector	No		5 V, 12 V	24 V or less	A80C	—	●			●	●	●	—	IC circuit							
					Grommet	Yes	3-wire (NPN equivalent)	—	5 V			—	—	E76A	ø10		—	●	●	—	—	—	—
							2-wire	12 V	100 V			—	E73A	●				●	—	—	—		
								5 V, 12 V	100 V or less			—	E80A	●				●	—	—	—		
		Grommet	No	2-wire				24 V	5 V, 12 V	100 V or less	—	—	—	—		—		—	—	—	—	IC circuit	
					—	—	—		—	—	—	—	—	—	—								
					—	—	—		—	—	—	—	—	—	—								
					—	—	—		—	—	—	—	—	—	—								

- \* 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 517 for details.
  - For details about auto switches with pre-wired connector, refer to pages 1784 and 1785.
  - \* Auto switches are shipped together (not assembled).

# Series CXWM

## Built-in shock absorber

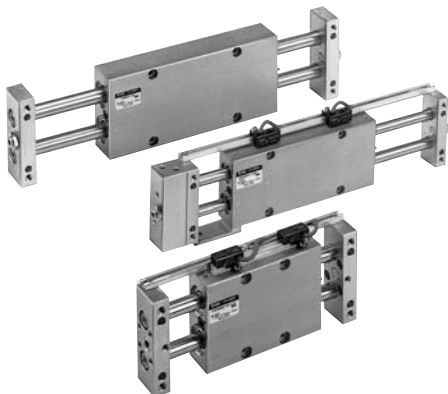
This is a built-in shock absorber style in which the shock absorber is enclosed in the housing. Compared to Series CX2 with shock absorber, this style achieves space savings in the longitudinal direction (except 25 mm stroke).

## 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 Specifications**  
(For details, refer to pages 1851 to 2021.)

Symbol	Specifications
—XB11	Long stroke type
—XB13	Low speed cylinder (5 to 50 mm/s)
—XC22	Fluororubber seal
—X146	Hollow piston rod
—X138	Adjustable stroke
—X168	Helical insert thread
—X169	2 built-in magnets

## 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 style.

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

## 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 Mass/Non-rotating Accuracy/Maximum Holding Force

Model	CXWM10	CXWM16	CXWM20	CXWM25	CXWM32
Maximum load mass*	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 <sup>(1)</sup>		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) <sup>(2)</sup>		80		70		45	
Max. allowable thrust (N)		147		353		667	
Ambient temperature range (°C)		-10 to 80					
Spring force (N)	Extended	1.96		4.22		6.86	
	Retracted	3.83		6.18		15.30	
Mass (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 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 Series RB Specific Product Precautions for the replacement period.

## Theoretical Output

(N)

Model	Rod size (mm)	Piston area (mm <sup>2</sup> )	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 (mm<sup>2</sup>)