

Slide Unit

Series CX2/CXWM/CXWL

Slide Bearing/CX2:ø10, ø15, ø25 CXWM:ø10, ø16, ø20, ø25, ø32

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

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.

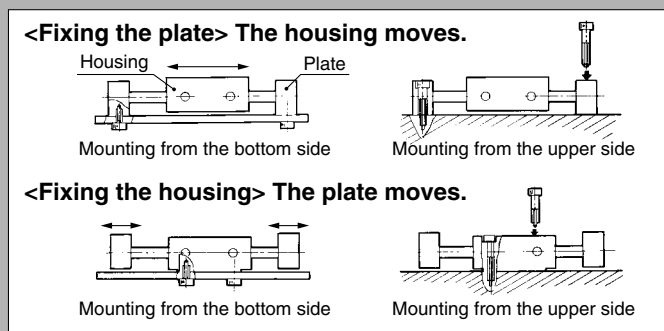
A high level of positional accuracy can be attained because the two parallel piston rods prevent the rods from rotating, and the workpiece mounting surface and the parallelism of the piston rods are made highly precise.

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.



Series Variations

Bearing type	Model	Bore size	Stroke (mm)							Accessory	Auto switch mounting	Page	
			25	50	75	100	125	150	175				200
Slide bearing	Series CX2 □ Double rod type (Basic type, compact) 	ø10	●	●	●	●	●	●	●	●	(1)	464	
		ø15	●	●	●	●	●	●	●	●	●		●
		ø25	●	●	●	●	●	●	●	●	●		●
Ball bushing bearing	Series CXWM Built-in shock absorber type 	ø10	(2)	●	●	●	●	●	●	●	●	(1)	473
		ø16	(2)	●	●	●	●	●	●	●	●	●	
		ø20	(3)	●	●	●	●	●	●	●	●	●	
		ø25	(2)	●	●	●	●	●	●	●	●	●	
		ø32	(3)	(3)	●	●	●	●	●	●	●	●	
Ball bushing bearing	Series CXWL Built-in shock absorber type 	ø10	●	●	●	●	●	●	●	●	●	(1)	499
		ø16	●	●	●	●	●	●	●	●	●	●	
		ø20	●	●	●	●	●	●	●	●	●	●	
		ø25	●	●	●	●	●	●	●	●	●	●	
		ø32	(3)	●	●	●	●	●	●	●	●	●	



Note 1) Only type E (Reed switch) is applicable as an auto switch when mounting a housing of ø10.
 Note 2) The shock absorbers are to be mounted on the both sides of the plate 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 the 50 stroke of Series CXWM32.

With end lock
 Shock absorber
 Adjusting bolt
 Housing mounting
 Plate mounting

CX2

CXW

CXT

CXSJ

CXS

D-□

-X□

Individual

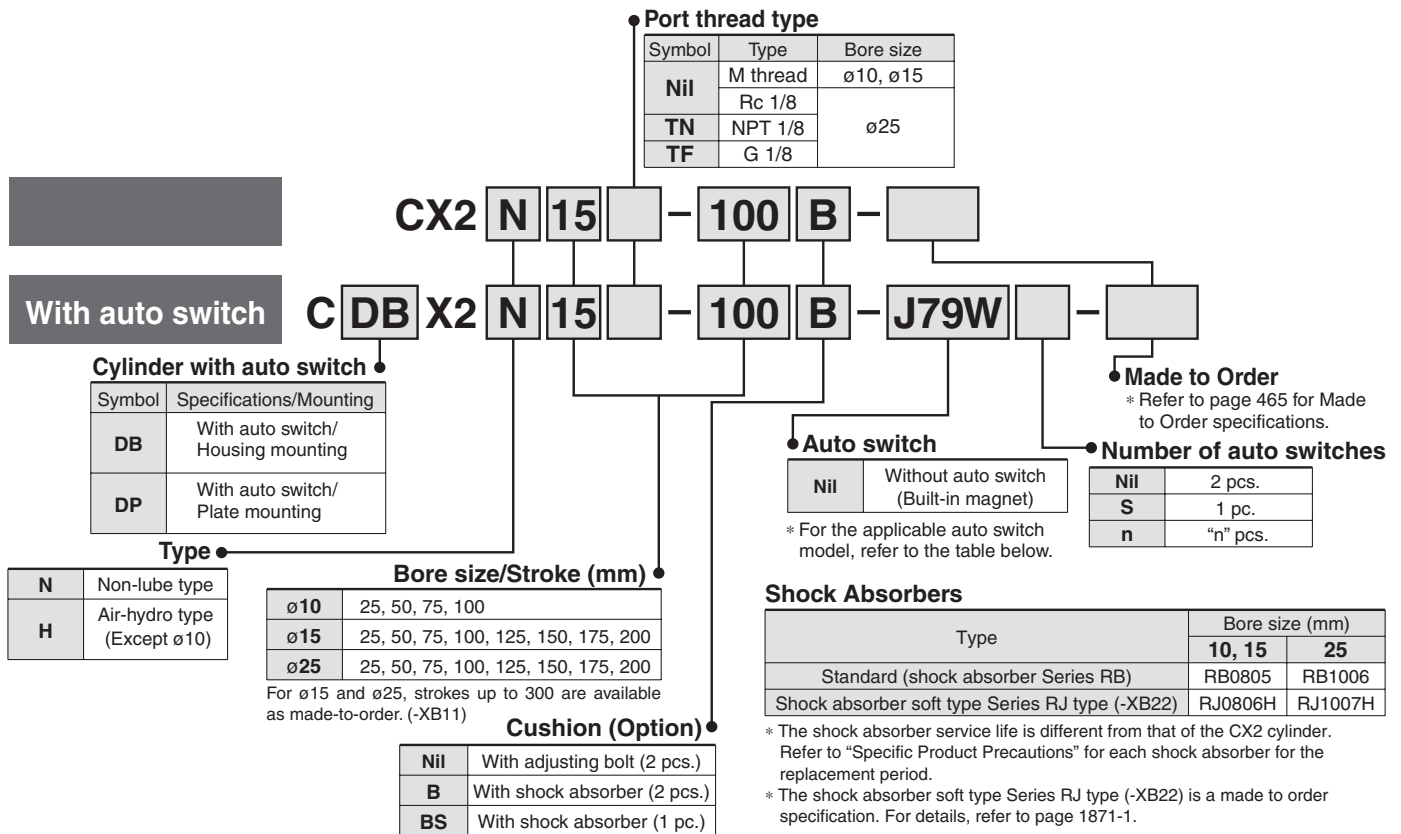
-X□

Slide Unit/Double Rod Type

Series CX2

Slide Bearing: ø10, ø15, ø25

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		Auto switch part no.		Applicable cylinder size		Lead wire length (m)				Pre-wired connector	Applicable load	
					DC	AC	Electrical entry		Housing mounting	Plate mounting	0.5 (Nil)	3 (L)	5 (Z)	None (N)			
							Perpendicular	In-line									
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24V	5V, 12V	—	F7NV	F79	ø15	ø10	●	●	○	—	○	IC circuit Relay, PLC
				3-wire (PNP)				F7PV	F7P			●	●	○	—	○	
	Connector	Yes	2-wire	12V	F7BV	J79	●	●	○	—	○	—					
			3-wire (NPN)	5V, 12V	J79C	—	●	●	○	—	○	—					
	Grommet	Yes	3-wire (PNP)	5V, 12V	F7NWV	F79W	●	●	○	—	○	—					
			2-wire	12V	—	F7PW	●	●	○	—	○	—					
Reed switch	—	Grommet	Yes	3-wire	24V	5V, 12V	24V or less	F7BWV	J79W	ø15	ø15	●	●	○	—	○	IC circuit Relay, PLC
				4-wire (NPN)	5V, 12V	—	F79F	●	●			○	—	○			
	Connector	No	Yes	2-wire	24V	5V, 12V	100 V or less	A76H	A72H	ø15	ø10	●	●	—	—	—	
								A73	A73H			●	●	—	—	—	
	Grommet	No	Yes	2-wire	24V	5V, 12V	24 V or less	A80	A80H	ø15	ø25	●	●	—	—	—	
								A73C	—			●	●	—	—	—	
Grommet	No	Yes	2-wire	24V	5V, 12V	100 V or less	A80C	—	ø10	—	●	●	—	—	—		
							—	E76A			●	●	—	—	—		
Grommet	No	Yes	2-wire	24V	5V, 12V	100 V or less	—	E73A	ø10	—	●	●	—	—	—		
							—	E80A			●	●	—	—	—		

** 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.

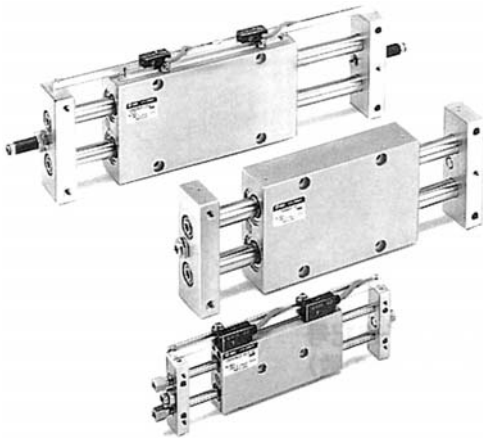
* Lead wire length symbols: 0.5 m Nil (Example) F79W
3 m L (Example) F79WL
5 m Z (Example) F79WZ
None N (Example) J79CN

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

* Refer to pages 1784 and 1785 for details of auto switches with a pre-wired connector.

* Auto switches are shipped together (not assembled).

Specifications



Type		Non-lube	Air-hydro type
Fluid		Air	Hydraulic fluid
Proof pressure		1.5 MPa	
Max. operating pressure		1.0 MPa	
Min. operating pressure	CX2N10	0.15 MPa	—
	CX2□15	0.15 MPa	
	CX2□25	0.10 MPa	
Ambient and fluid temperature		-10°C to +60°C	
Piston speed (Non-lube)	With adjusting bolt	30 to 200 mm/s	Refer to Table (1).
	With shock absorber	30 to 500 mm/s	
Cushion		With shock absorber (Option)	
Stroke adjustable range		Standard stroke: ±2 mm	
Max. load mass ⁽¹⁾	CX2N10	9.8 N	
	CX2□15	29.4 N	
	CX2□25	58.8 N	
Non-rotating accuracy (Except piston rod deflection)	CX2N10	±0.1°	
	CX2□15	±0.04°	
	CX2□25	±0.02°	
Accessory (Option)		Straight knock pin (2 pcs.), Adjusting bolt (-X138) ⁽²⁾ Shock absorber	

Note 1) Place the center of gravity of the load as close to the center of the slide unit as possible during operation. If they are placed far apart, consult with SMC.

Note 2) "-X138" has a stroke adjustable range of 12.5 mm on one side.

Table (1) Air-hydro/Piston Speed

Model	Plate mounting	Housing mounting
CX2H15	Refer to the below. ^{Note 1)}	5 to 50 mm/s
CX2H25	5 to 40 mm/s	5 to 100 mm/s

Note 1) Consult with SMC when the air-hydro type is mounted on a plate.

Note 2) Consult with SMC when units are used at a low speed (10 mm/s or faster) (when intermediate stops are not required) since -XB13 (Low speed specification) is available.

Note 3) When using the air-hydro type, use the double side hydro unit.

Shock Absorber Specifications

Shock absorber		RB0805	RB1006
Applicable slide unit		CX2N10, CX2□15	CX2□25
Maximum energy absorption (J)		0.98	3.92
Stroke absorption (mm)		5	6
Max. collision speed (m/sec)		0.05 to 5	
Max. operating frequency (cycle/min)		80	70
Max. allowable thrust (N)		147	353
Ambient temperature range (°C)		-10 to 80	
Spring force (N)	Extended	1.96	4.22
	Retracted	3.83	6.18
Mass (g)		15	25

* The above shows the maximum absorption energy per cycle. Accordingly, the operating frequency can be increased in accordance with the absorption energy.

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



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)
— XB22	Shock absorber soft type Series RJ type
— X146	Hollow piston rod
— X138	Adjustable stroke
— X168	CX helical insert thread
— X169	2 built-in magnets
— XC22	Fluororubber seals

Theoretical Output

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	
CX2N10	6	101	20	30	40	51	61	71	81	91	
CX2□15	8	207	41	62	83	104	124	145	166	186	
CX2□25	14	597	119	179	239	299	358	418	478	537	

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

CX2

CXW

CXT

CXSJ

CXS

D-□

-X□

Individual
-X□