

Standard Type Dual-Rod Cylinder

Series CXS

ø6, ø10, ø15, ø20, ø25, ø32

How to Order

CXS M 20 100 Y7BW S

Bearing type

M	Slide bearing
L	Ball bushing bearing

Bore size/Standard stroke

Bore sizes	Standard strokes (mm)
6	10, 20, 30, 40, 50
10	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75
15, 20, 25, 32	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch type

Nil	Without auto switch (with built-in magnet)
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* Select applicable auto switch types from the table below.

Applicable auto switches: Refer to pages 40 through 49 for detailed auto switch specifications.

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage			Auto switch type		Lead wire length (m)*			Applicable loads	
					DC	AC		Electrical entry direction Perpendicular	In-line	0.5 (Nil)	3 (L)	5 (Z)		
Reed switch	—	Grommet	Yes	3-wire	—	5V	—	—	Z76	●	●	—	IC circuit	—
				2-wire	24V	12V	100V	—	Z73	●	●	●	—	—
			No			5V, 12V	100V or less	—	Z80	●	●	—	IC circuit	
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24V	5V, 12V	—	Y69A	Y59A	●	●	○	IC circuit	Relay PLC
				3-wire (PNP)				Y7PV	Y7P	●	●	○		
				2-wire		12V		Y69B	Y59B	●	●	○	IC circuit	
	Diagnostic indication (2-color display)			3-wire (NPN)	5V, 12V	Y7NWV		Y7NW	●	●	○	—		
				3-wire (PNP)		Y7PWV		Y7PW	●	●	○			
				Water-resistant (2-color display)	2-wire	12V		Y7BWV	Y7BW	●	●	○	—	
	—				Y7BA	—		●	○					

* Lead wire length symbols: 0.5m Nil (Example) Y59A
 3m L Y59AL
 5m Z Y59AZ

Note) Solid state switches marked "○" are produced upon receipt of order.



Specifications

Bore size (mm)	6	10	15	20	25	32
Fluid	Air (non-lube)					
Proof pressure	1.05MPa					
Maximum operating pressure	0.7MPa					
Minimum operating pressure	0.15MPa	0.1MPa		0.05MPa		
Ambient and fluid temperature	-10° to 60°C (with no freezing)					
Piston speed ^{Note)}	30 to 300mm/s	30 to 800mm/s	30 to 700mm/s		30 to 600mm/s	
Cushion	Rubber bumper					
Stroke adjustable range	0 to -5mm compared to the standard stroke					
Port size	M5 x 0.8				Rc 1/8	
Bearing type	Slide bearing, Ball bushing bearing (Same dimensions for both)					

Note) The maximum piston speed shown in the table above is for extension.

The maximum piston speed for retraction is approximately 70% that of extension.

Standard Strokes

Model	Standard strokes	Manufacturable stroke range
CXS□6	10, 20, 30, 40, 50	60 to 100
CXS□10	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75	80 to 150
CXS□15	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 75, 80, 90, 100	110 to 150
CXS□20		110 to 200
CXS□25		
CXS□32		

* Refer to "Made to Order" on page 51 for long strokes (i.e., strokes beyond the standard stroke range).

Non-standard strokes for a size ø6 cylinder are available as a special order.



Made to Order Specifications

Refer to pages 50 through 53 for Series CXS Made to Order specifications.

Theoretical Output

Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm²)	Operating pressure (MPa)							
				0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7
CXS□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□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□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□20	10	OUT	628	62.8	—	126	188	251	314	377	440
		IN	471	47.1	—	94.2	141	188	236	283	330
CXS□25	12	OUT	982	98.2	—	196	295	393	491	589	687
		IN	756	75.6	—	151	227	302	378	454	529
CXS□32	16	OUT	1608	161	—	322	482	643	804	965	1126
		IN	1206	121	—	241	362	482	603	724	844

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

Weights

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	—	—	—	—	—	—
CXSM10	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	0.15	0.16	0.17	0.18	0.19	0.20	0.21	0.22	0.23	0.25	0.27	0.28	—	—	—
CXSM15	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
CXSM20	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
CXSM25	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
CXSM32	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