

Series CY1S

Slider Type/Slide Bearing

How to Order

Slide bearing CY1S 25 H 300

With auto switch CDY1S 25 H 300 A72

With switch rail

Slider type (slide bearing)

Bore size

6	6mm	25	25mm
10	10mm	32	32mm
15	15mm	40	40mm
20	20mm		

Magnetic holding force
Refer to the magnet holding force table on page 23.

Standard stroke
Refer to the standard stroke table on page 23.

Number of auto switches

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

Auto switch type

Nil	Without auto switch
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* Refer to the table below for applicable auto switch types.

Adjustment type

Nil	With adjustment bolt
B	With shock absorber (2pcs.)
BS	With shock absorber (with plate A) * Installed on Side A at time of shipment.

Applicable auto switch types /

Refer to "Auto Switch Guide" (E274-A) for further details on auto switch units.
Refer to pages 60 and 61 for auto switch circuit diagrams.

Type	Special function	Electrical entry	Indicator light	Wiring (output)	Load voltage			Auto switch no.		Lead wire length (m) <small>Note 1)</small>				Applicable load		
					DC	AC	Electrical entry direction		0.5 (Nil)	3 (L)	5 (Z)	None (N)				
							Vertical	Lateral								
Reed switch	-	Grommet	Yes	3 wire (NPN equiv.)	-	5V	-	-	A76H	●	●	-	-	IC circuit	-	
				2 wire	-	-	200V	A72	A72H	●	●	-	-	-	Relay PLC	
		24V	12V		100V	A73	A73H	●	●	●	-					
			5V, 12V		100V or less	A80	A80H	●	●	-	-	IC circuit				
			Connector		Yes	12V	-	A73C	-	●	●	●	●	-		-
No	5V, 12V	24V or less	A80C	-	●	●	●	●	IC circuit	-						
Solid state switch	-	Grommet	Yes	3 wire (NPN)	24V	5V, 12V	-	F7NV	F79	●	●	○	-	IC circuit	Relay PLC	
				3 wire (PNP)				F7PV	F7P	●	●	○	-	IC circuit		
		Connector		2 wire				12V	F7BV	J79	●	●	○	-		-
				J79C				-	●	●	●	●	-			
	Diagnostic indication (2 color indicator)	Grommet	3 wire (NPN)	5V, 12V	F7NWW	F79W	●	●	○	-	IC circuit					
			3 wire (PNP)	-	F7PW	●	●	○	-	-						
			2 wire	12V	F7BWV	J79W	●	●	○	-	-					
			-	-	F7BA	-	●	○	-	-						
			3 wire (NPN)	5V, 12V	-	F7NT	-	●	○	-	IC circuit					
			-	-	F79F	●	●	○	-	-						
			4 wire (NPN)	-	-	<small>Note 3)</small> F7LF	●	●	○	-	-					
			-	-	-	-	-	-	-	-						
			Water resistant (2 color indicator)	-	-	-	-	-	-	-	-					
With timer	-	-	-	-	-	-	-	-								
With diagnostic output (2 color indicator)	-	-	-	-	-	-	-	-								
Latch type with diagnostic output (2 color indicator)	-	-	-	-	-	-	-	-								

Note 1) Lead wire length symbol 0.5m Nil (Example) A 80C
3m L (Example) A80CL
5m Z (Example) A80CZ
None N (Example) A80CN

Note 2) Solid state auto switches marked with a "○" are produced upon receipt of order.

Note 3) Type D-F7LF cannot be mounted on bore sizes ø6 and ø10.



Load can be directly mounted
Strokes available up to 1500mm
Long life with no external leakage
With auto switches and shock absorbers

Models

Type	Bearing type	Model	Bore size (mm)	Auto switch model	Adjustable type
Slider type	Slide bearing	CY1S	6, 10, 15, 20, 25, 32, 40	D-A7, A8 D-F7, J7	With adjustment bolt With shock absorber

Specifications

1MPa: Approx.10.2kgf/cm²

Fluid	Air
Proof pressure	1.05MPa {10.7kgf/cm ² }
Max. operating pressure	0.7MPa {7.1kgf/cm ² }
Min. operating pressure	0.18MPa {1.8kgf/cm ² }
Ambient & fluid temperature	-10 to 60°C
* Piston speed	50 to 400mm/s
Cushion	Rubber bumpers at both ends
Lubrication	Non-lube
Stroke length tolerance	0 to 250st: ^{+1.0} ₀ , 251 to 1000st: ^{+1.4} ₀ , 1001st to: ^{+1.8} ₀
Mounting orientation	Unrestricted

* In the case of a model with auto switch (CDY1S) where an auto switch is mounted at an intermediate position, the maximum detectable piston speed is controlled by the response time of the load (relays, sequence controller, etc.).

Standard Stroke Table

Bore size (mm)	Standard stroke (mm)	Maximum available stroke (mm)
6	50, 100, 150, 200	300
10	50, 100, 150, 200, 250, 300	500
15	50, 100, 150, 200, 250, 300, 350 400, 450, 500	750
20	100, 150, 200, 250, 300, 350 400, 450, 500, 600, 700, 800	1000
25		1500
32		
40	100, 150, 200, 250, 300, 350 400, 450, 500, 600, 700, 800 900, 1000	1500

Principle Materials

Description	Material	Note
Plate A, B	Aluminum alloy	Hard anodized
Cylinder tube	Stainless steel	-
Guide shaft A, B	Carbon steel	Hard chrome plated
Magnet	Rare earth magnet	-
Slide block	Aluminum alloy	Hard anodized

Magnetic Holding Force (N)

1N: Approx. 0.102kgf

Bore size (mm)	6	10	15	20	25	32	40
Holding force type							
H type	19.6	53.9	137	231	363	588	922
L type	-	-	81.4	154	221	358	569

Amount of Adjustment for Adjustment Bolt and Shock Absorber

Bore size (mm)	Adjustment bolt amount of adjustment (both sides) (mm)	Shock absorber amount of adjustment (mm)	
		Plate A side	Plate B side
6	12	17	11
10	11	14	6
15	7	14	4
20	11	36	27
25	10	12	3
32	11	33	23
40	9	32	17

* Since the cylinder is in an intermediate stop condition when stroke adjustment is performed, use caution regarding the operating pressure and the kinetic energy of the load.

Weight Table

(kg)

Bore size (mm)	6	10	15	20	25	32	40
Number of magnets							
Basic	CY1S□H	0.27	0.48	0.91	1.48	1.84	3.63
	CY1S□L	-	-	0.85	1.37	1.75	3.48
Additional weight per 50mm of stroke		0.044	0.074	0.104	0.138	0.172	0.267

Calculation method/Example: CY1S32H-500

Basic weight ... 3.63kg Additional weight 0.267/50st Cylinder stroke 500
3.63 + 0.267 x 500 ÷ 50 = 6.3kg

With shock absorber

Refer to page 30 for details regarding Series CY1S with shock absorber.