



Compact cylinder Double acting/Single rod

Long service life cylinder

SSD2-HP1 Series

● Bore size:ø12/ø16/ø20/ø25/ø32/ø40



Specifications

Item	SSD2-HP1 SSD2-L-HP1 (with switch)					
Bore size mm	ø12	ø16	ø20	ø25	ø32	ø40
Actuation	Double acting					
Working fluid	Compressed air					
Max. working pressureMPa	1.0					
Min. working pressureMPa	0.1					
Proof pressure MPa	1.6					
Ambient temperature °C	-10 to 60 (no freezing)					
Port size	M5				Rc1/8 *1	
Stroke tolerance mm	+1.0 0					
Working piston speedmm/s	50 to 500					
Cushion	No					
Lubrication	Not required					
Allowable absorbed energyJ	0.004	0.01	0.016	0.021	0.025	0.092

*1: The ø32 bore size with a 5 mm stroke and without a switch has a port size of M5.

Stroke

Bore size (mm)	Standard stroke (mm)	Max. stroke (mm)	Min. stroke (mm)
ø12	5/10/15/20	30	1
ø16	25/30		
ø20	5/10/15/20/25	50	
ø25	30/35/40/45/50		
ø32	5/10/15/20/25	100	
ø40	30/35/40/45/50/75/100		

*1: When using the type with switch, refer to the table of the min. stroke with switch.

Min. stroke with switch (With 2 switches)

Bore size (mm)	T0/T5	T2/T3
ø12	10 (5)	5
ø16		
ø20	5	
ø25		
ø32		
ø40		

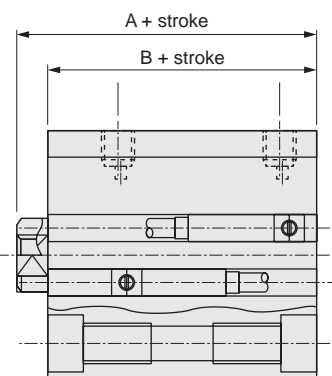
1: Less than 10 mm with the 2-color LED, off-delay, AC magnetic field proof, T1 or T8* switch is not available.

*2: Values in () are for the type with 1 on rod side.

Custom stroke

● SSD2 Series

Item	Standard stroke body with spacer	
Model No.	Refer to How to order.	
Product Item	A spacer is added to the standard stroke body to adjust the stroke in 1 mm increments.	
Stroke range	Bore size	Stroke range
	12/16	1 to 29
	20/25	1 to 49
	32/40	1 to 99
Example of model No.	Model No.: SSD2-25-38-HP1 To create a 38mm stroke, +2 mm spacer is added to the SSD2-25-40-HP1. B + stroke is 62.5 mm.	



For dimensions, refer to the SSD2 Series in "Pneumatic Cylinders I (CB-029SA)".

How to order

Without switch (without magnet for switch)

SSD2-12-5-N-LB-I-HP1

With switch (built-in magnet for switch)

SSD2-L-12-10-T0H-R-N-LB-I-HP1

A Model No.

B Bore size

C Port thread

D Stroke

E Switch model No.

*1
*2
*3
*8
*9

F Switch quantity

G Option
*4

H Mounting bracket*5
*6

⚠ Precautions for model No. selection

1: The T2YD switch cannot be mounted on the ø12 and ø16 bore sizes.

2: T8 switch cannot be installed on ø12 to ø32.

*3: The F type switch can only be mounted on the piping port surface of bore sizes ø20 and ø25.

*4: Piston rod of ø12 to ø25 is stainless steel as standard. C-snap ring will be stainless steel, not steel. The rod end male thread nut is stainless steel.

*5: The mounting bracket is included at shipment.

*6: The projection dimension of piston rod WF when LB or FA is selected is different from that of the standard. Refer to "Pneumatic Cylinders I (CB-029SA)" for dimensions. The number of the specified protruding dimension will be added at the end of the model No. printed on the metal plate on the body.

*7: "I" and "Y" cannot be selected together.

*8: The F type switch with L type lead wire on ø20 models cannot be selected on strokes 15 mm or under.

*9: Switches are shipped with the product. Contact CKD if assembling before shipment is necessary.

*10: F type switch cannot be selected.

*11: Copper and PTFE free as standard.

[Example of model No.]

SSD2-L-12-10-T0H-R-N-LB-I-HP1

Model: Compact cylinder, standard

- B Bore size : ø12 mm
- C Port thread : Rc thread
- D Stroke : 10 mm
- E Switch model No. : Reed T0H switch, lead wire length 1 m
- F Switch quantity : 1 on rod side
- G Option : Rod end male thread
- H Mounting bracket : Axial foot
- I Accessory : Rod eye

Code		Description											
A Model No.													
SSD2		Double acting/Single rod											
SSD2-L		Double acting/Single rod with switch											
B Bore size (mm)													
12		ø12											
16		ø16											
20		ø20											
25		ø25											
32		ø32											
40		ø40											
C Port thread													
Blank		Rc thread											
NN		NPT thread (ø32 and over) (made to order)											
GN		G thread (ø32 and over) (made to order)											
D Stroke (mm)													
Refer to the stroke table on the following page.													
E Switch model No.													
Lead wire	Lead wire	Contact	Voltage		Indicator	Lead wire	Bore size						
Straight	L-shaped		AC	DC			12	16	20	25	32	40	
F2S*		Proximity		●	1-color LED	2-wire			●	●			
F3S*				●		3-wire			●	●			
F2H*	F2V*			●		2-wire			●	●			
F3H*	F3V*			●		3-wire			●	●			
F3PH*	F3PV*			●		1-color LED (PNP output) (made to order)	3-wire			●	●		
F2YH*	F2YV*	Reed		●	2-color LED	2-wire			●	●			
F3YH*	F3YV*			●		3-wire			●	●			
T0H*	T0V*			●	●	1-color LED	2-wire	●	●	●	●	●	●
T5H*	T5V*			●	●	No LED		●	●	●	●	●	●
T8H*	T8V*			●	●	1-color LED							●
T1H*	T1V*	Proximity		●	1-color LED	2-wire			●	●	●	●	
T2H*	T2V*			●		●	●	●	●	●	●	●	
T3H*	T3V*			●		3-wire	●	●	●	●	●	●	
T2HR3	T2VR3			●		1-color LED bend resistant lead wire	2-wire	●	●	●	●	●	●
T3PH*	T3PV*			●		1-color LED (PNP output) (made to order)	3-wire	●	●	●	●	●	●
T2WH*	T2WV*			●	2-color LED	2-wire	●	●	●	●	●	●	
T3WH*	T3WV*			●		3-wire	●	●	●	●	●	●	
T2YD*	-			●		2-color LED	2-wire			●	●	●	●
T2YDT*	-			●	2-color LED	2-wire			●	●	●	●	
T2JH*	T2JV*			●	1-color LED off-delay	2-wire			●	●	●	●	
* Lead wire length													
Blank		1 m (standard)											
3		3 m (option)											
5		5 m (option) *10											
F Switch quantity													
R		1 on rod side											
H		1 on head side											
D		2											
G Option													
Blank		Rod end female thread											
N		Rod end male thread											
M		Piston rod material (stainless steel) *4											
H Mounting bracket													
Blank		Without mounting bracket											
LB		Axial foot											
CB		Clevis bracket (pin and snap ring attached)											
FA		Rod side flange											
FB		Head side flange											
I Accessory (available when rod end male thread "N" is selected)													
I		Rod eye											
Y		Rod clevis (pin and snap ring attached)											

I Accessory*7

SSD2-HP1 Series

[Stroke table]

Stroke (mm)		Applicable bore size					
		12	16	20	25	32	40
Standard stroke	5	●	●	●	●	●	●
	10	●	●	●	●	●	●
	15	●	●	●	●	●	●
	20	●	●	●	●	●	●
	25	●	●	●	●	●	●
	30	●	●	●	●	●	●
	35			●	●	●	●
	40			●	●	●	●
	45			●	●	●	●
	50			●	●	●	●
	75					●	●
	100					●	●
Min. stroke (mm) *1		1					
Max. stroke (mm)		30		50		100	
Custom stroke *2		In 1 mm increments					

1: Less than 5 mm for 1-color LED switch, less than 10mm for the 2-color LED, off-delay, AC magnetic field proof, T1, and T8* switches are not available. Refer to page 10 for the min. stroke with switch.

*2: The total length when using a custom stroke is the same as that when using the next longer standard stroke.

*3: Refer to the dimensions in "Pneumatic Cylinders I (CB-029SA)" for the min. stroke with mounting bracket LB.

How to order switch

SW - T0H

Switch model No.

How to order mounting brackets

Bore size (mm)	ø12	ø16	ø20	ø25	ø32	ø40
Mounting bracket						
Foot (LB)	SSD2-LB-12	SSD2-LB-16	SSD2-LB-20	SSD2-LB-25	SSD2-LB-32	SSD2-LB-40
Flange (FA/FB)	SSD2-FA-12	SSD2-FA-16	SSD2-FA-20	SSD2-FA-25	SSD2-FA-32	SSD2-FA-40
Clevis bracket (CB)	SSD2-CB-12	SSD2-CB-16	SSD2-CB-20	SSD2-CB-25	SSD2-CB-32	SSD2-CB-40

*1: The foot mounting bracket is provided as 2 pcs./set.

SSD2 consumable parts list

Bore size (mm)	Kit No.	Part name
ø12	SSD2-12K-HP1	Rod metal gasket Rod packing Piston packing
ø16	SSD2-16K-HP1	
ø20	SSD2-20K-HP1	
ø25	SSD2-25K-HP1	
ø32	SSD2-32K-HP1	
ø40	SSD2-40K-HP1	