

P4
Series



Pneumatic Cylinders I
Catalog No. CB-029SA

Medium bore size cylinder
Double acting/ Single rod/no-lubrication

SCS2 Series

● Bore size: $\phi 125/\phi 140/\phi 160/\phi 180/\phi 200/\phi 250$

JIS symbol



Specifications

Descriptions		SCS2-N/SCS2-LN					
Bore size mm		$\phi 125$	$\phi 140$	$\phi 160$	$\phi 180$	$\phi 200$	$\phi 250$
Actuation		Double acting					
Working fluid		Compressed air					
Max. working pressure MPa		1.0					
Min. working pressure MPa		0.05					
Proof pressure MPa		1.6					
Ambient temperature °C		-5 to 60 (However, no freezing)					
Port size		Rc 1/2	Rc 3/4			Rc1	
Stroke tolerance mm		$^{+1.0}_0$ (up to 300), $^{+1.4}_0$ (up to 1000), $^{+1.8}_0$ (up to 1200)					
Working piston speed mm/s		20 to 1000 (Operate within the absorbed energy.)					
Cushion		Air cushion					
Effective air cushion length mm		21.6	21.6	21.6	21.6	26.6	26.6
Lubrication		Not available					
Allowable absorbed energy J	Cushioned	63.5	91.5	116	152	233	362
	Without cushion	0.371	0.386	0.386	0.958	1.08	2.32
		Without a cushion, large energy generated by the external load cannot be absorbed. We recommend using an external shock absorber.					

Stroke

Bore size (mm)	Standard Stroke (mm)	Max. Stroke (mm)	Available Stroke (mm)	Min. Stroke (mm)	Trunnion Min. Stroke (mm)
$\phi 125$	50/75/100/150/ 200/250/300	800	2000	1	23
$\phi 140$			1947		25
$\phi 160$		900	1525		27
$\phi 180$		945	945		28
$\phi 200$		751	751		28
$\phi 250$					

*1: The custom stroke length is available in 1 mm increments.

*2: If the max. Stroke is exceeded, product specifications may not be met, depending on operating conditions. Contact CKD in this case.

Compatibility table by variation

Applicable bore size	P4	Double acting/ Lubrication	Double acting/ No lubrication	Double acting/ With switch	Stroke adjustable (Push)	Double acting/ Heat resistance	Double acting/ Double rod	Double acting/ Back to back	Double acting/ Two-stage	Double acting/ Low hydraulic	Double acting/ Powerful Scraper
			N	LN	P	T	D	B	W	H	G
ø125 to 250	P4		○	○	▲		▲	▲	▲		▲

●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable

How to order

● No-lubrication without switch

SCS2-N — **LB** — **125** **B** — **50** — **P4** **Y**

● No-lubrication with switch

SCS2-LN — **LB** — **125** **B** — **50** — **SW11** — **R** — **P4** **Y**

Model No.

A Mounting
*1

B Bore size

C Cushion

D Stroke

E Switch model No.

F Switch quantity

G Option
*2

H Accessory
*3

⚠ Precautions for model No. selection

*1: Supporting hole is available custom made for ø125 to 160 only. Contact CKD Sales for details.

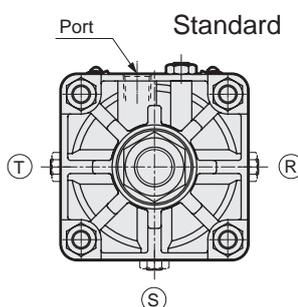
*2: Check below for the cushion needle position indication.

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

*4: Made-to-order product. Contact CKD Sales for details.

Cushion needle position

(Needle position with the port on the top when viewed from the rod end)



Code	Description		
A Mounting			
00	Basic		
LB	Axial foot		
FA	Rod side flange		
FB	Head side flange		
CA	Eye bracket		
CB	Clevis bracket (Pin and snap ring attached)		
TC	Intermediate trunnion		
TA	Rod side trunnion		
TB	Head side trunnion		
B Bore size (mm)			
125	ø125		
140	ø140		
160	ø160		
180	ø180		
200	ø200		
250	ø250		
C Cushion			
B	Both sides cushioned		
R	Rod side cushioned		
H	Head side cushioned		
N	Without cushion		
D Stroke (mm)			
Bore size	Stroke	Available Stroke	Custom Stroke
ø125 to ø140	1 to 800	2000	In 1 mm increments
ø160	1 to 800	1947	
ø180	1 to 900	1525	
ø200	1 to 945	945	
ø250	1 to 751	751	
E Switch model No.			
Refer to the compatibility table on Intro Pages 23 to 26 for switch model No.			
F Switch quantity			
R	1 on rod side		
H	1 on head side		
D	2		
T	3		
4	4		
G Option			
M	Piston rod, rod nut material (Stainless steel)		
Blank	Cushion needle position (standard)	Standard T R S	
R	Cushion needle position R		
S	Cushion needle position S		
T	Cushion needle position T		
H Accessory			
I	Rod eye		
Y	Rod clevis (Pin and snap ring attached)		
B1	Eye bracket		
B2	Clevis bracket (Pin and snap ring attached)		

P4
Series

Pneumatic
Cylinders

Hand/
Chuck
Related
products
Cylinder
Switch

Vacuum components

Pneumatic valves

Clean air
components
controller

Pneumatic auxiliary components

Speed
Fitting
Auxiliary
valve
Silencer
Tube

Gas generator

Fluid control components

Motor
specification
Motorless
specifications

Electric actuator