



Pneumatic Cylinders II
Catalog No. CB-030SA

Parallel hand Double acting/single acting

HAP-²/₃/₄ CS Series

● Operating Stroke: 16, 26, 41 mm

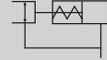
Double acting



Single acting (Normally Open)



Single acting (Normally Closed)



Specifications

Item	HAP			
Size	2CS	3CS	4CS	
Bore size	mm	ø20	ø25	ø40
Actuation	Double acting/single acting			
Working fluid	Compressed air			
Max. working pressure	MPa	0.7		
Min. working pressure	MPa	0.3		
Ambient temperature	°C	5 to 60		
Port size	M5		Rc1/8	
Operating Stroke	mm	16	26	41
Rod diameter	mm	ø10	ø14	ø16
Capacity of reciprocation	cm ³	4.4	10.8	47.4
Repeatability	mm	±0.03		
Product weight	kg	0.28	0.58	1.52
Lubrication	Not available			

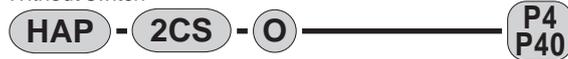
Compatibility table by variation

Applicable bore size		Double acting	Single acting Normally Open	Single acting Normally Closed
			O	C
ø/40	P4	●	●	●
	P40	●	●	●

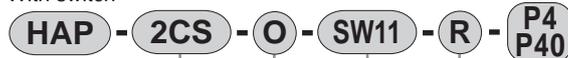
●: Applicable models ○: Semi-applicable models ▲: Contact CKD for details. □: Not applicable

How to order

Without switch



With switch



Ⓐ Size

Ⓑ Option *1

Ⓒ Switch model No.

Ⓓ Switch quantity

Code	Description
Ⓐ Size	
2CS	
3CS	
4CS	
Ⓑ Option	
Blank	Standard (double acting)
O	Single acting (Normally Open)
C	Single acting (Normally Closed)
Y1	With attachment (S50C)
Y2	With attachment (MC nylon)
Ⓒ Switch model No.	
Refer to the compatibility table on Intro Pages 23 to 26 for switch model No.	
Ⓓ Switch quantity	
R	1 on open side
H	1 on closed side
D	2

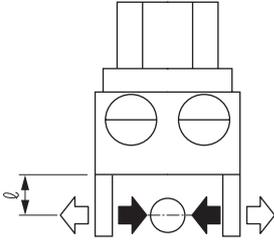
⚠ Precautions for model No. selection

*1: For option Y1 and Y2 attachments, two are included on delivery.

Gripping power performance data

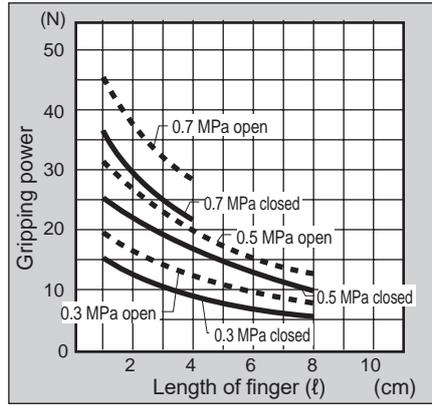
The gripping force in the opening/closing directions with a finger length l of the hand with a supply pressure of 0.3, 0.5, and 0.7 MPa is shown.

- Open direction (↔)----- (Broken line)
- Close direction (→)—— (shown with continuous line)

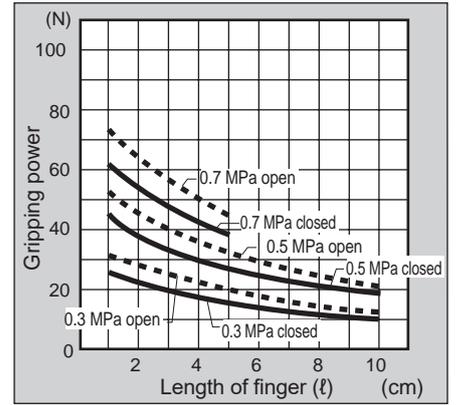


(Note) O type gripping force decreases approximately 20 to 30% in the closed direction compared to double acting. C type gripping force decreases approximately 10 to 20% in the open direction compared to the double acting type.

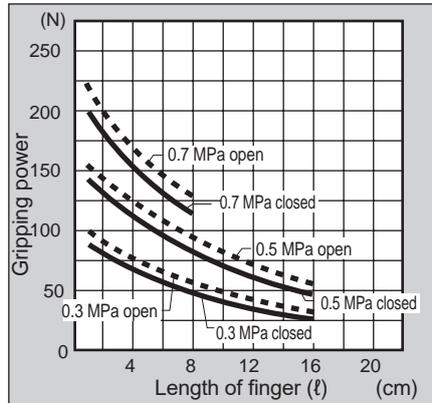
● HAP-2CS



● HAP-3CS



● HAP-4CS



P4 Series

Pneumatic cylinders
Hand/Chuck
Related products
Cylinder Switch

Vacuum components
Pneumatic valves

Clean air components
controller
Speed
Fitting
Auxiliary valve
Silencer
Tube

Gas generator
Fluid control components

Motor specification
Motorless specifications