

MVS series Miniature Vacuum Cylinder

Product features

CHELIC

Feature

- With independent vacuum inlet connector which can avoid the breakage of the air pipe when acting.
- Lightweight and compact, easy to install.
- A buffer device is installed inside to prevent damage to the workpiece.
- The double guide rod structure prevents the cylinder when rotating.



Specification

Item	Bore size(mm)	Ø6		Ø10	
		10	10	15	
Stroke	mm	10	10	15	
Operation		Double acting			
Theoretical thrusts	Piston out	kgf	1.4	3.9	
	Piston in	kgf	1.05	3.25	
Applicable pad size		PA - 02 ~ 15			
Shock absorber stroke	mm	3			
Cushion device		Spring buffer			
Pressure range	kgf/cm ² (kPa)	1 ~ 7 (100 ~ 700)			
Fluid		Air			
Ambient and fluid temperature	°C	5 ~ 60			
Main connection port		M3			
Port size	Ø (mm)	4			

Product weight

Bore size (mm)	weight (g)
MVS Ø06x10	40
MVS Ø10x10	90
MVS Ø10x15	100

Packing and O-ring part list

Unit: mm

Item	Shaft packing	Piston packing	Front/ Rear cover O-ring	Ventilation guide O-ring	Rear O-ring-A	Rear cover O-ring -B	Quantity
							Bore size(mm)
MVS Ø 06	MYA-3	COP-06	Ø4*Ø1	Ø3.5*Ø1	Ø2*Ø1	Ø4*Ø1	1
MVS Ø 10	MY-5A	OPA-10	Ø8*Ø1	Ø5.5*Ø1.5	Ø2*Ø1	Ø6.8*Ø0.8	1

EV

EVM

VA □

VM □

VM □ U

VHS

VSL

VKM

VKMT

VCK

VK20 □

VK30 □

VQ20 □

VFD

VFM

VFU

ERV

ERVL

MVS

DYC

MVS series Miniature Vacuum Cylinder

Code of order

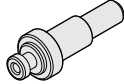
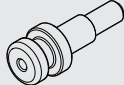
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Code of order **MVS 06 X 10 – 02 – PA02 – N – 8G – 1**

1 2 3 4 5 6

1	Mark	Bore Size (mm)
	06	Ø6
	10	Ø10



2	Mark	Stroke (mm)
	10	10
	15	15

3	Mark	Bracket
	02	
	05	

4	Mark	Vacuum pad size	
		size (mm)	Single layer
	PA02	Ø2	
	PA3.5	Ø3.5	
	PA05	Ø5	
	PA06	Ø6	
	PA08	Ø8	
	PA10	Ø10	
	PA15	Ø15	

5	Mark	Vacuum pad material	Color
	N	NBR	Black
	S	Silicon, Silicone rubber	White
	U	PU	Black

● PU rubber only for Ø6 ~ Ø15

6	Mark	Sensor switch	Image
	None	Without sensor switch	—
	8G	CS-8G	
	8B	CS-8B	

● Only 1pc optional sensor switch.

● MVS Correspondence table:

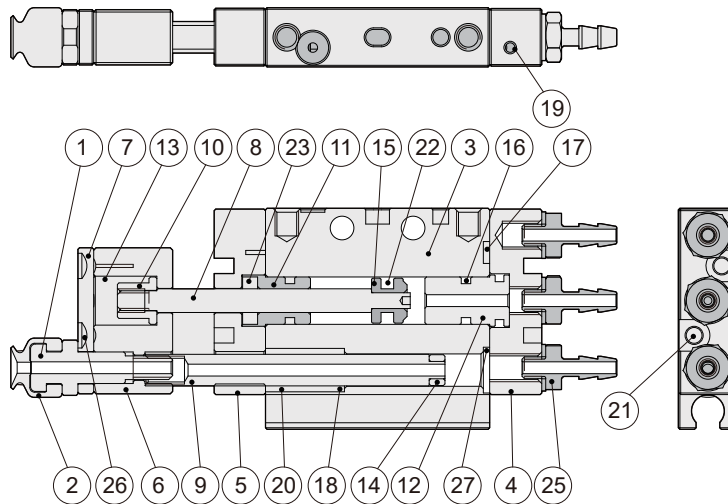
Model	1 Bore size	2 Stroke	3 Bracket	4 Size	5 Material	6 Sensor switch
MVS	06	10	02	PA02 • PA3.5	N • S • U	8G • 8B
			05	PA05 • PA06 • PA08 • PA10 • PA15		
	10	10 • 15	02	PA02 • PA3.5		
			05	PA05 • PA06 • PA08 • PA10 • PA15		

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Product features

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Internal structure



Components and Material list

No.	Item	Material	No.	Item	Material
01	Bracket	Copper alloy	15	Piston	Aluminum alloy
02	Vacuum pad	NBR	16	Front/ Rear cover O-ring	NBR
03	Body	Copper alloy	17	Rear O-ring - A	NBR
04	Rear cover	Copper alloy	18	Ventilation guide O-ring	NBR
05	Front cover	Copper alloy	19	Stainless steel beads	Stainless
06	Front plate	Copper alloy	20	Plastic bearing	Relieving type
07	Front slider cover	Copper alloy	21	Front/ Rear cover bolt	Alloy steel
08	Shaft	Stainless	22	Piston packing	NBR
09	Ventilation guide	Stainless	23	Shaft packing	NBR
10	Spring seat	Copper alloy	24	Pin	Bearing steel
11	Front cover	Copper alloy	25	Tiny vertical fitting	Stainless
12	Rear cover	Copper alloy	26	Front slider screw	Alloy steel
13	Spring	Piano wire	27	Rear cover O-ring -B	NBR
14	Magnet	Rare earth material			

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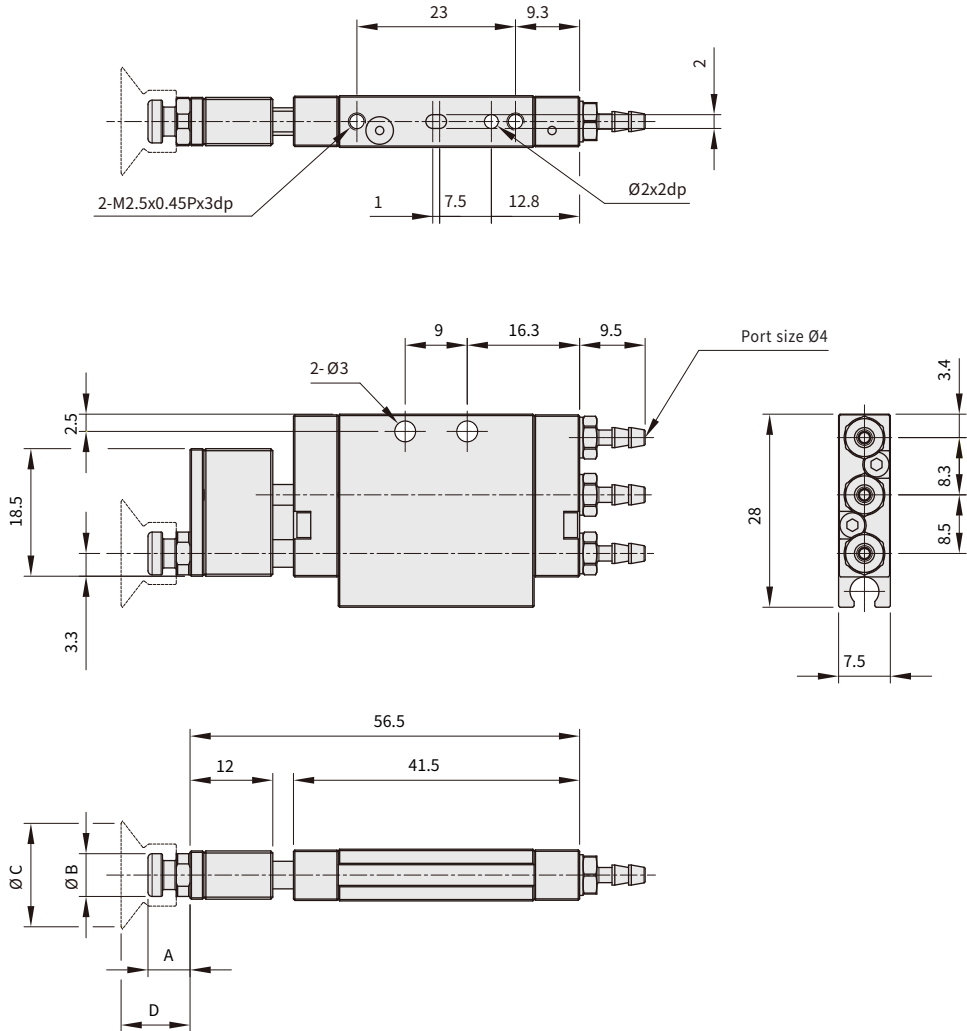
DYC

MVS series Miniature Vacuum Cylinder

External dimensions

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MVS 06x10



Unit: mm

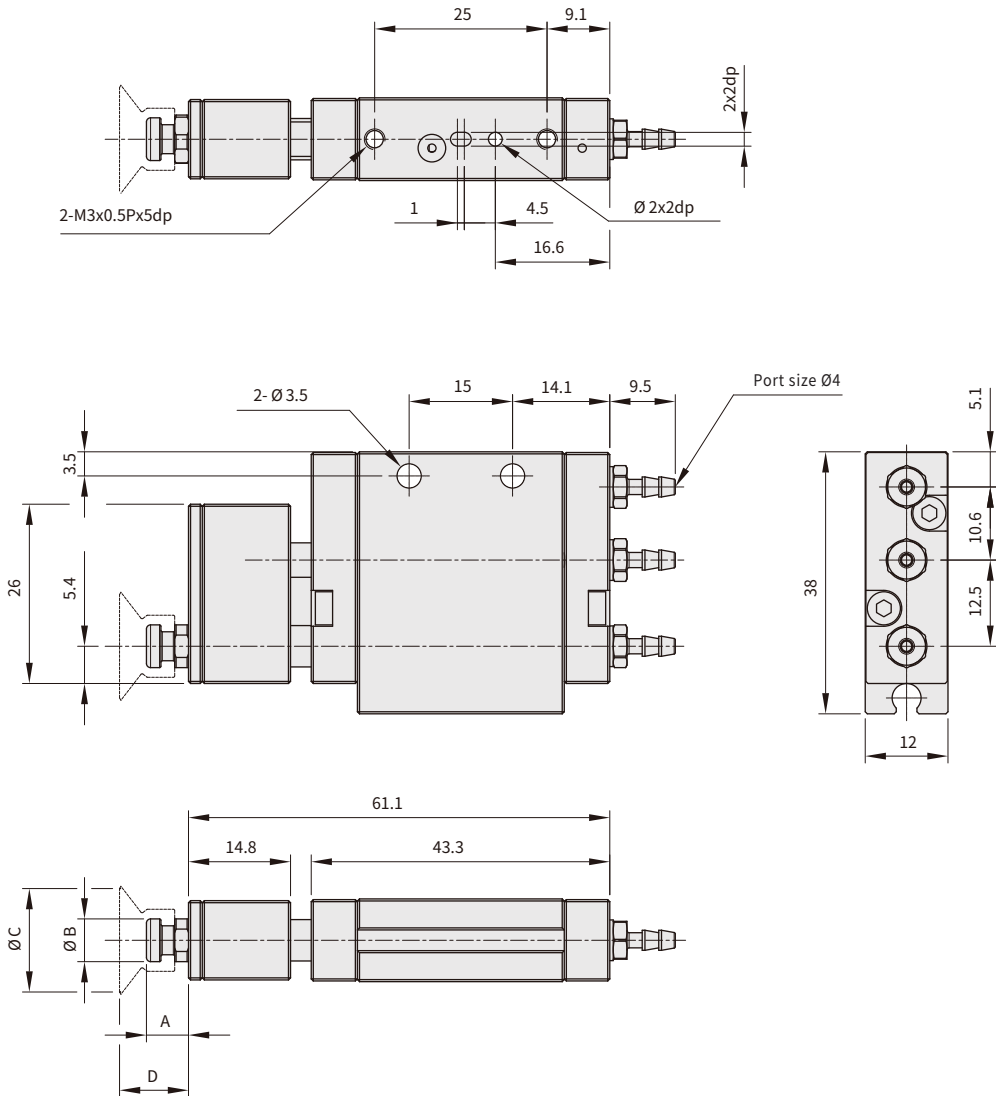
Bracket		02		05				
With vacuum pad		PA-02	PA-3.5	PA-05	PA-06	PA-08	PA-10	PA-15
Mark	A	5.2		6.1				
	$\varnothing B$	3		6.2				
	$\varnothing C$	2	3.5	5	6	8	10	15
	D	6.6	6.6	8.5	8.5	9	9.5	10

MVS series Miniature Vacuum Cylinder

External dimensions

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MVS 10x10



Unit: mm

Bracket		02			05			
With vacuum pad		PA-02	PA-3.5	PA-05	PA-06	PA-08	PA-10	PA-15
Mark	A	5.2			6.1			
	$\varnothing B$	3			6.2			
	$\varnothing C$	2	3.5	5	6	8	10	15
	D	6.6	6.6	8.5	8.5	9	9.5	10

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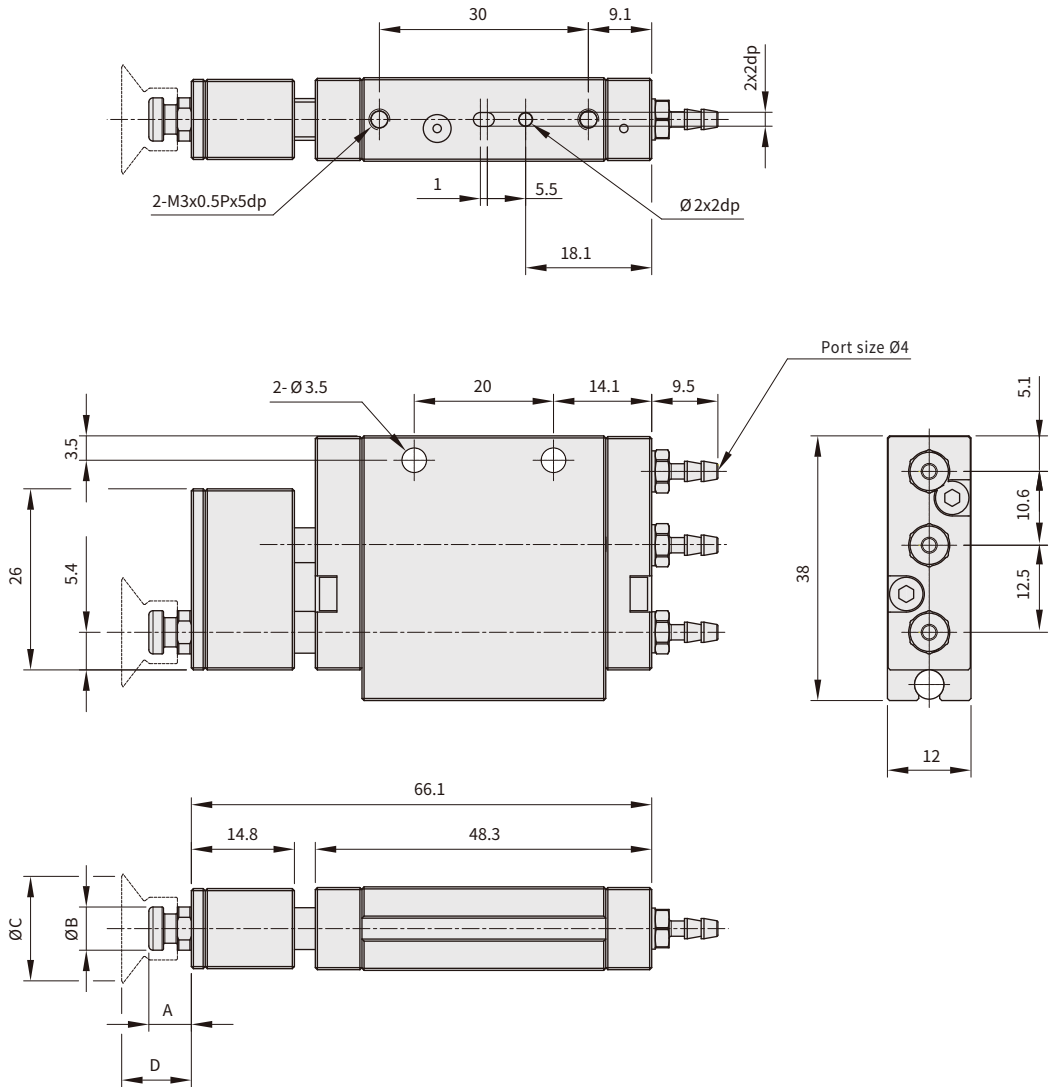
DYC

MVS series Miniature Vacuum Cylinder

External dimensions

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MVS 10x15



Unit: mm

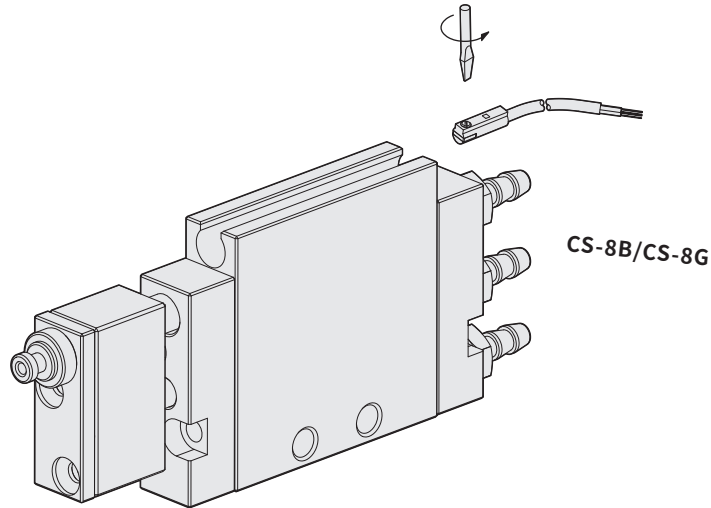
Bracket		02		05				
With vacuum pad		PA-02	PA-3.5	PA-05	PA-06	PA-08	PA-10	PA-15
Mark	A	5.2		6.1				
	ØB	3		6.2				
	ØC	2	3.5	5	6	8	10	15
	D	6.6	6.6	8.5	8.5	9	9.5	10

MVS series Miniature Vacuum Cylinder

Sensor Switch

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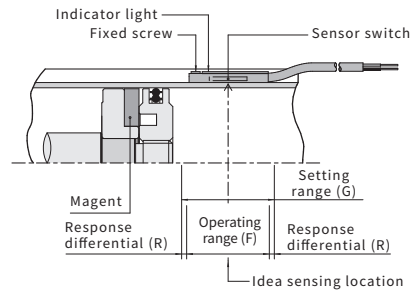
■ Sensor switch installation



■ Operating range

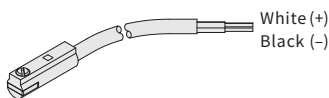
Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

■ Sensor switch setting and operating range



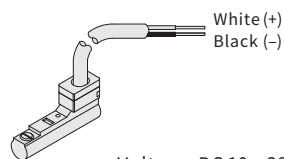
■ Sensor switch introduction

CS-8G



Voltage: DC 10~28V

CS-8B



Voltage: DC 10~28V

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