

HDZM series Parallel Type Air Gripper/ with Dust Cover

Product features/ Code of order

CHELIC

Feature

- The cover type to prevent the filings and dust
- Built-in magnet
- The roller type linear



Specification

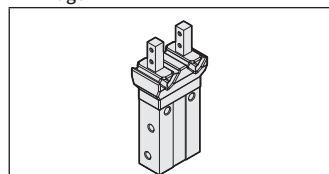
Item	Bore size (mm)	Ø06	Ø10	Ø16	Ø20	Ø25	Ø32	Ø40
Action		Double acting						
Fluid		Air						
Pressure range	kgf / cm ² (kPa)	2 ~ 7 (200 ~ 700)			1.5~7(150~700)			
Ambient and fluid temperature	°C	0 ~ 60						
Max. operation frequency	time/min	100					60	
Lubrication		Not required						
Finger open/ close accuracy	mm	±0.01					±0.02	
Finger open/ close stroke	mm	4	4	6	10	14	22	30
Port size		M3x0.5P			M5x0.8P			
Sensing device		With magnet						

Code of order **HDZM 16 - B - 8G 2**

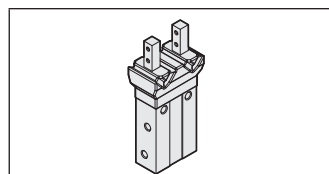
1 — 2 — 3 — 4 — 5

1	Mark	Model
	HDZM	Double acting
	HRZM	Single acting normally open

Image



HDZM series (Double acting) Parallel Type Air Gripper/ with Dust Cover



HRZM series (Single acting normally open) Parallel Type Air Gripper/ with Dust Cover

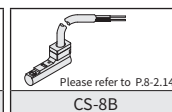
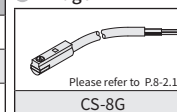
2	Mark	Bore size (mm)
	06	Ø6
	10	Ø10
	16	Ø16
	20	Ø20
	25	Ø25
	32	Ø32
	40	Ø40

5	Mark	Sensor quantity
	1	With 1 sensor switch
	2	With 2 sensor switches

3	Mark	Gripper type	Mark	Gripper type	Mark	Gripper type
	None: Standard		B: Side tapped mounting		C: Through-holes	

4	Mark	Sensor switch
	None	Without sensor switch
	8G	CS-8G
	8B	CS-8B

Image

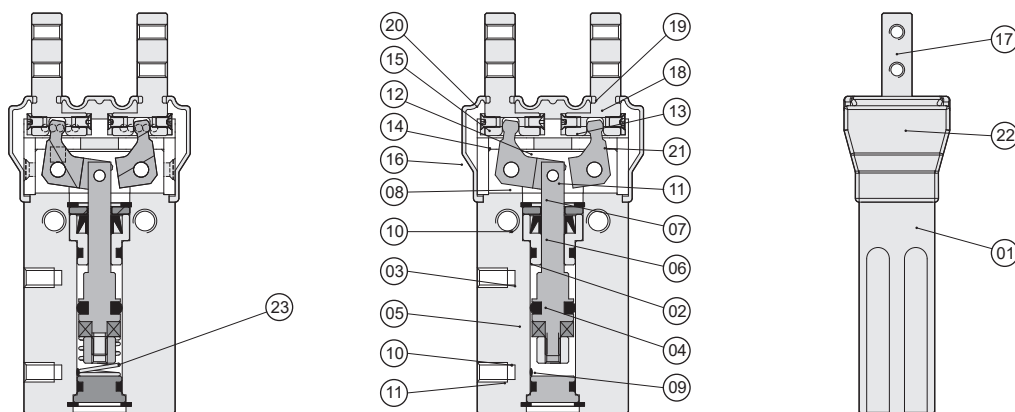


HDZM series Parallel Type Air Gripper/ with Dust Cover

Product features

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Internal structure



● HRZM Single acting normally open

Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	13	Action lever	Stainless steel
02	Shaft	Stainless steel	14	Pin	Bearing steel
03	Pinston packing	NBR	15	Plug	Alloy steel
04	Magnet	Compound material	16	Finger base	Stainless steel
05	Magnet base	Aluminum alloy	17	Finger	Stainless steel
06	Front cover	Aluminum alloy	18	Roller block	Stainless steel
07	Shaft packing	NBR	19	Countersunk screw	Stainless steel
08	Packing plate	Aluminum alloy	20	Steel bead	Bearing steel
09	Rear cover	Aluminum alloy	21	Countersunk screw	Alloy steel
10	O-ring	NBR	22	Dustproof cover	Silicon
11	C clip	Spring steel	23	Spring	Stainless steel
12	Pin	Bearing steel			

Packing and O-ring material list

Unit: mm

Item	Piston packing	Shaft packing	Rear cover O-ring
Model \ Quantity	1	1	1
HDZM Ø06	COP - 06	DYR - 3K	Ø4 x Ø1 (1PC per front & rear cover)
HDZM Ø10	APA - 10	MY - 6A	Ø8 x Ø1
HDZM Ø16	APA - 16	MY - 8A	Ø13.2 x Ø1.5
HDZM Ø20	APA - 20	MY - 10A	Ø17.5 x Ø1.5
HDZM Ø25	APA - 25	MY - 12A	Ø22 x Ø1.5
HDZM Ø32	APA - 32	MYA - 16	Ø28.5 x Ø2
HDZM Ø40	APA - 40	DYR - 20	Ø38.5 x Ø2

Product weight

Model	Weight (kg)
HDZM Ø06	0.025
HDZM Ø10	0.06
HDZM Ø16	0.14
HDZM Ø20	0.27
HDZM Ø25	0.49
HDZM Ø32	1.81
HDZM Ø40	1.37

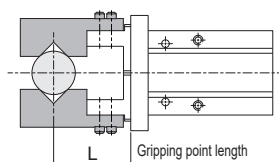
Note: All of above are theoretical data.
Weight tolerance about $\pm 5\%$

HDZM series Parallel Type Air Gripper/ with Dust Cover

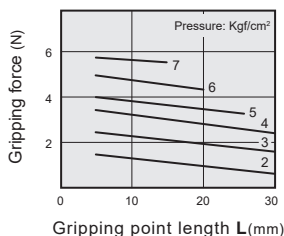
Characteristics graph

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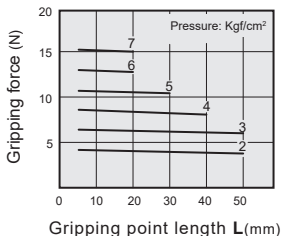
External grip force characteristic



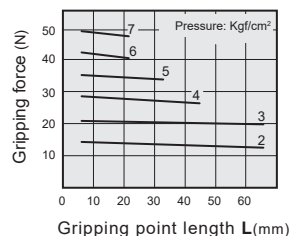
HDZM 06



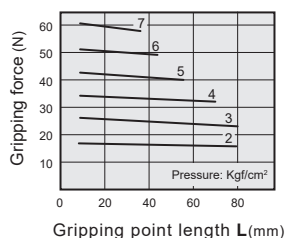
HDZM 10



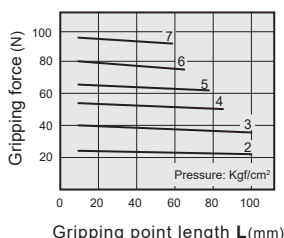
HDZM 16



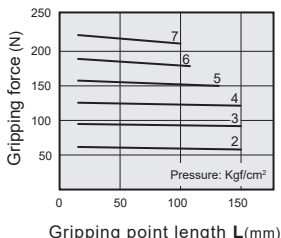
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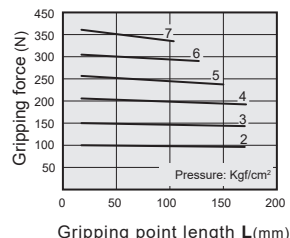
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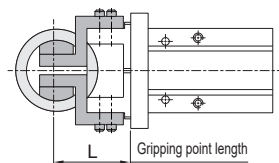
HDZM 32



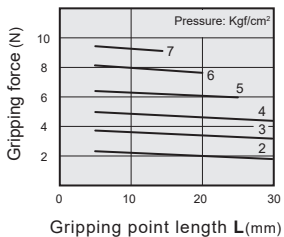
HDZM 40



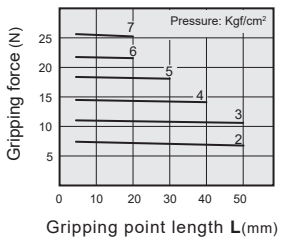
Internal grip force characteristic



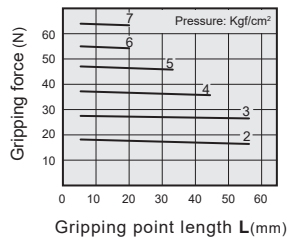
HDZM 06



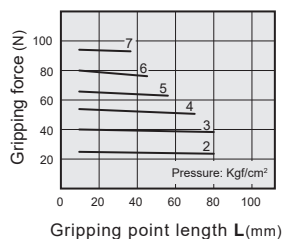
HDZM 10



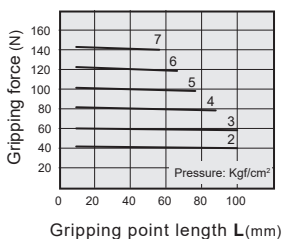
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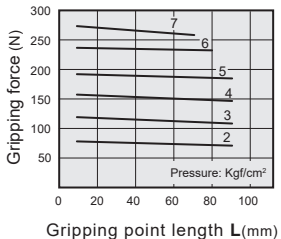
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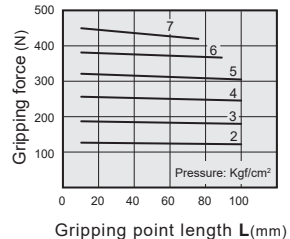
HDZM 25



HDZM 32



HDZM 40



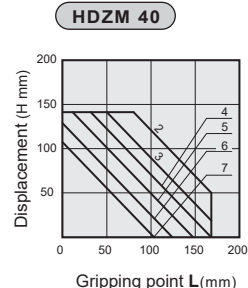
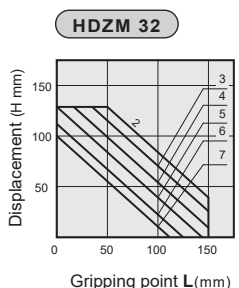
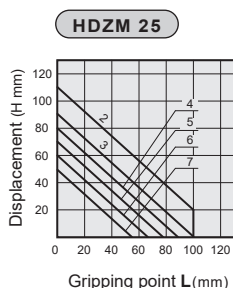
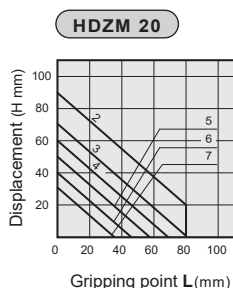
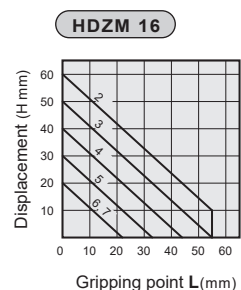
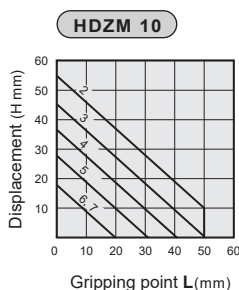
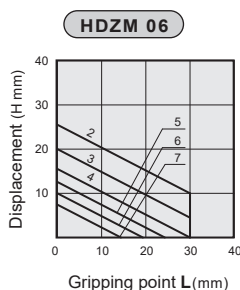
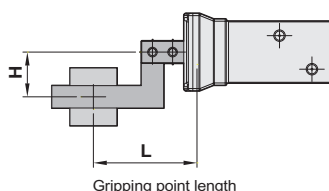
HDZM series Parallel Type Air Gripper/ with Dust Cover

Characteristics graph

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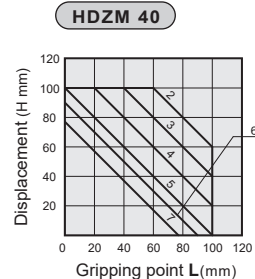
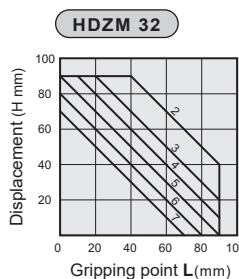
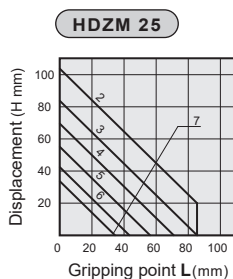
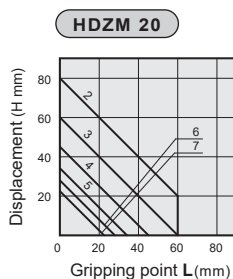
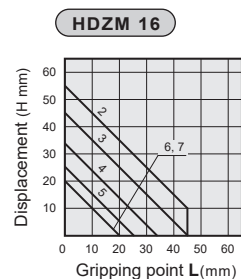
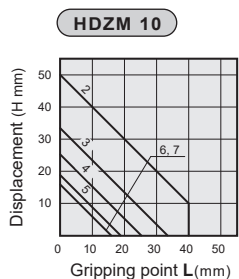
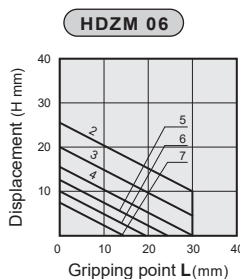
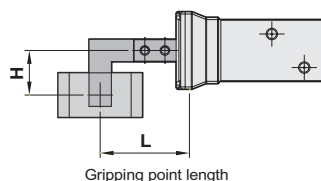
Gripper maximum allowable displacement - External gripping force

The working piece shall be used within the requirement. If the workingpiece exceed below offset, it will shorter gripper lifespan.



Gripper maximum allowable displacement - Internal gripping force

The working piece shall be used within the requirement. If the workingpiece exceed below offset, it will shorter gripper lifespan.



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU

HDZM series Parallel Type Air Gripper/ with Dust Cover

Operating type and data, Mounting type

CHELIC

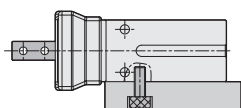
Operating type and data

Action	Model	Bore size (mm)	The smallest operating pressure (kgf/cm ²)	Thread port (mm)	Effective gripping force (N)	
Double acting	HDZM 06	6	2	4 - M2 x 0.4P	Open	6.1
					Close	3.3
	HDZM 10	10	2.2	4 - M2.5 x 0.45P	Open	17
					Close	11
	HDZM 16	16	1.2	4 - M3 x 0.5P	Open	45
					Close	34
	HDZM 20	20	1.5	4 - M4 x 0.7P	Open	66
					Close	42
	HDZM 25	25	1.5	4 - M5 x 0.8P	Open	104
					Close	65
	HDZM 32	32	1.5	4 - M6 x 1.0P	Open	193
					Close	158
	HDZM 40	40	1.5	4 - M8 x 1.25P	Open	318
					Close	254
Single acting normally open	HRZM 06	6	3.5	4 - M2 x 0.4P	Close	1.9
	HRZM 10	10	3.6	4 - M2.5 x 0.45P	Close	7.1
	HRZM 16	16	3	4 - M3 x 0.5P	Close	27
	HRZM 20	20	2	4 - M4 x 0.7P	Close	33
	HRZM 25	25	2	4 - M5 x 0.8P	Close	45
	HRZM 32	32	2	4 - M6 x 1.0P	Close	131
	HRZM 40	40	1.5	4 - M8 x 1.25P	Close	217

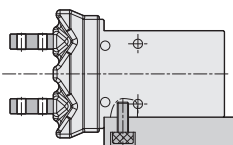
Note: The gripping force is the force of open and close gripper which in the length of gripping point is 30mm and acting pressure is 5kgf/cm².

Mounting type

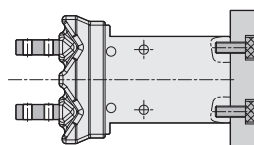
1. Lateral mounting



2. Vertical mounting



3. Axial mounting

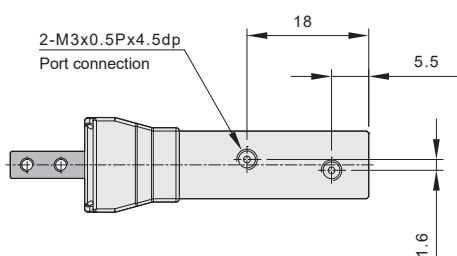
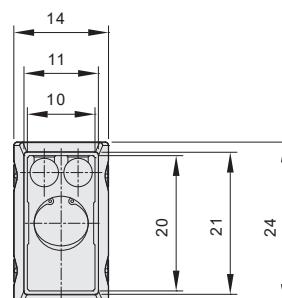
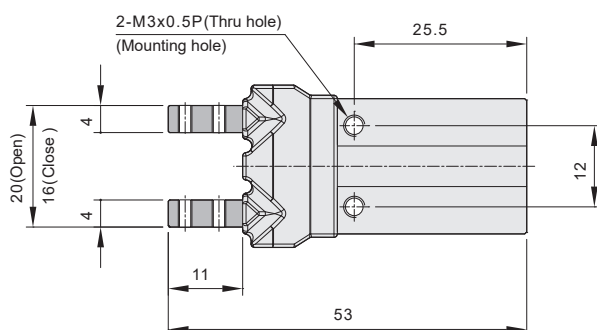
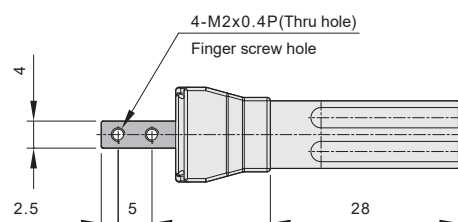


HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

- HDZM 06 (Double acting)
- HRZM 06 (Single acting)



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU

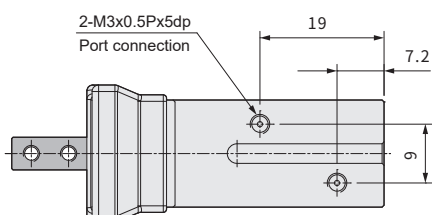
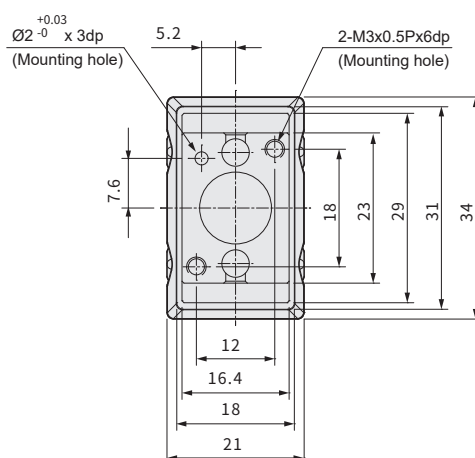
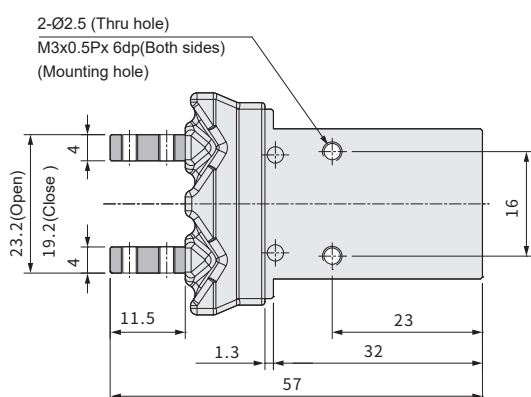
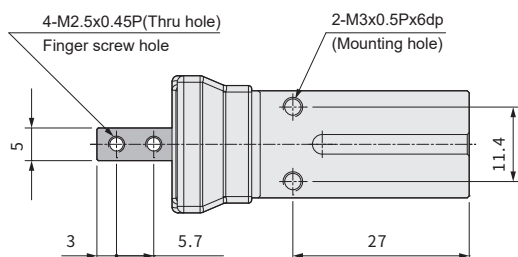
HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

HDZM 10 (Double acting)

HRZM 10 (Single acting)

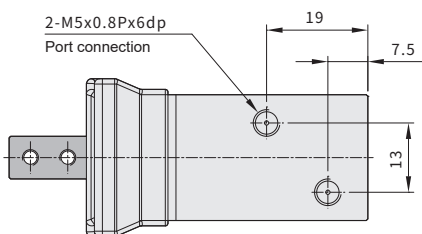
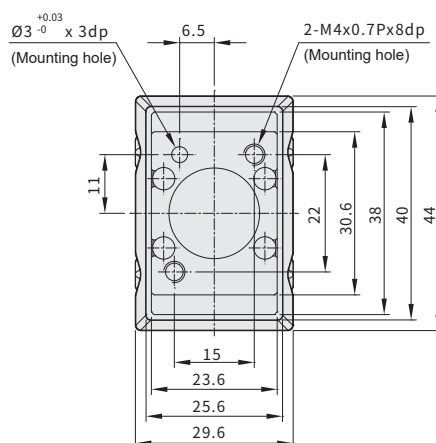
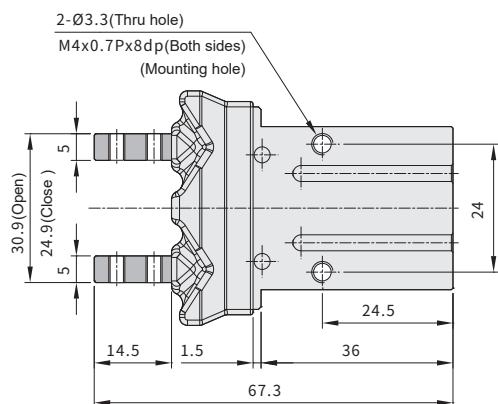
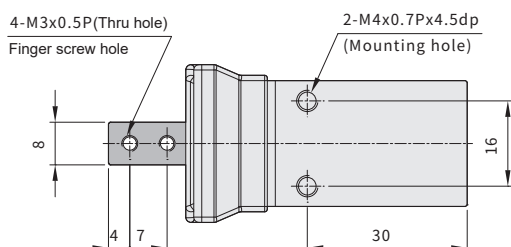


HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

- HDZM 16 (Double acting)
- HRZM 16 (Single acting)



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

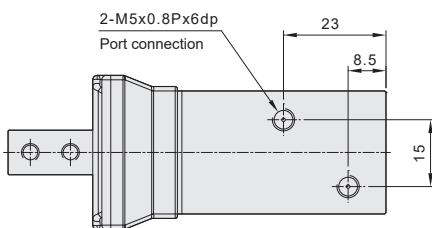
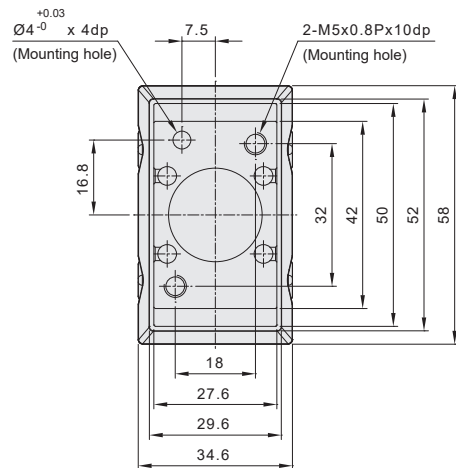
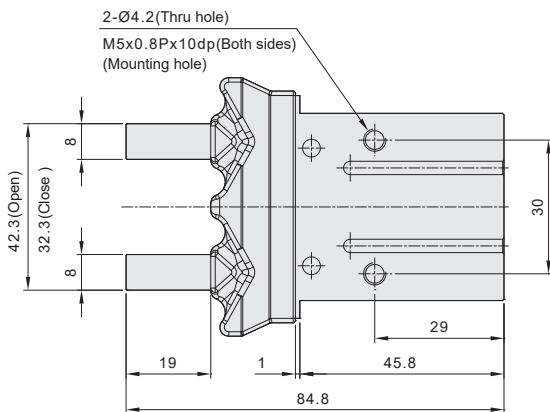
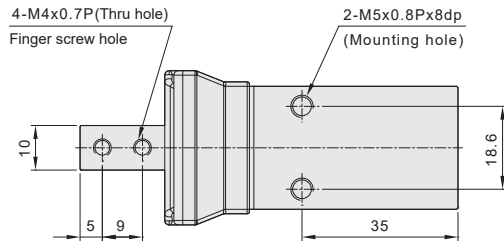
HDU

HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

- HDZM 20 (Double acting)
- HRZM 20 (Single acting)

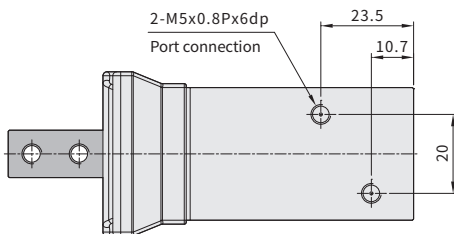
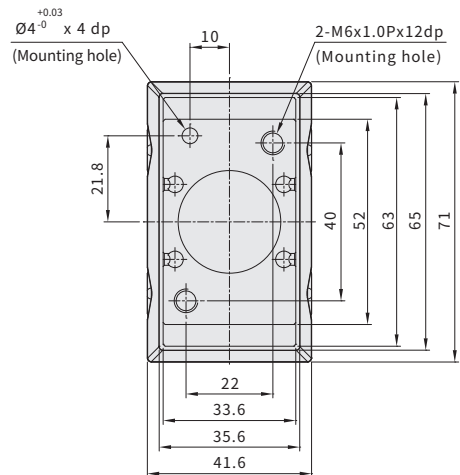
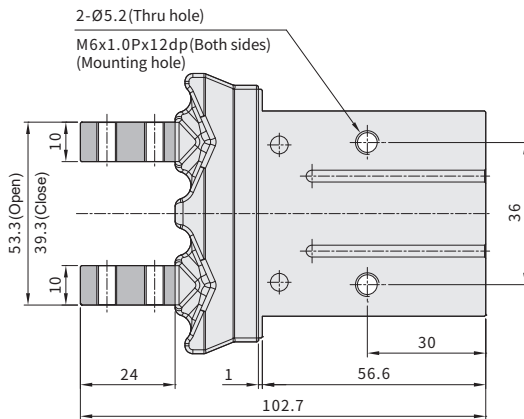
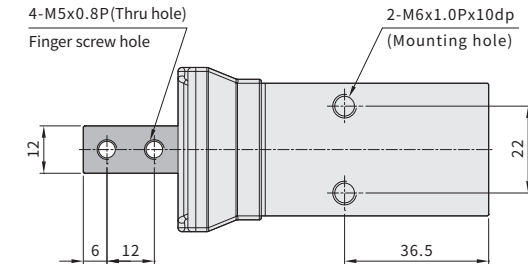


HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

- HDZM 25 (Double acting)
- HRZM 25 (Single acting)



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU

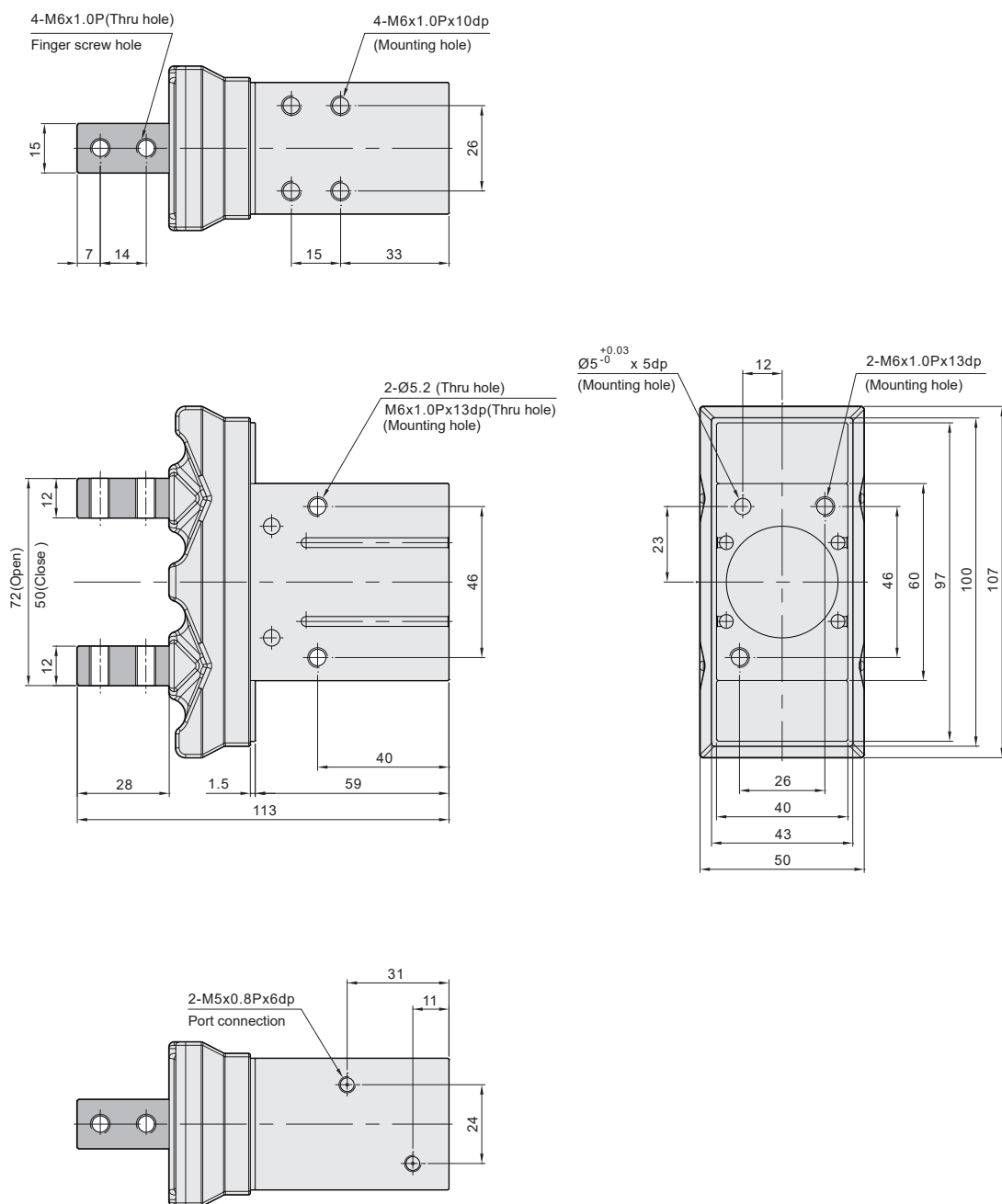
HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

HDZM 32 (Double acting)

HRZM 32 (Single acting)



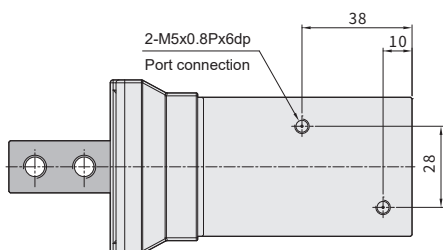
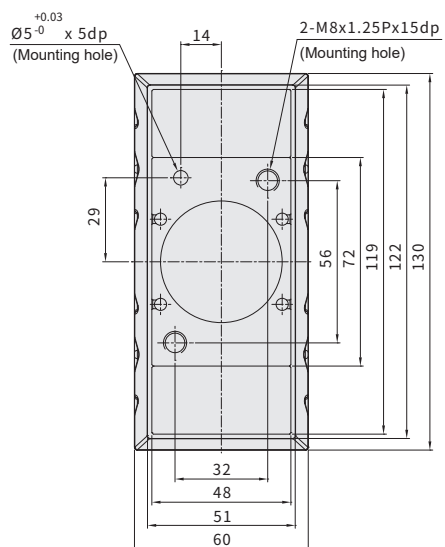
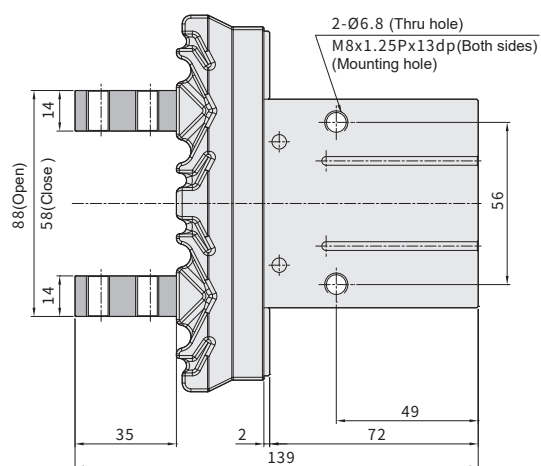
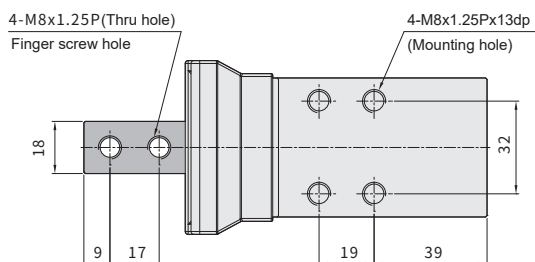
HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

CHELIC

HDZM 40 (Double acting)

HRZM 40 (Single acting)



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU

HDZM series Parallel Type Air Gripper/ with Dust Cover

Dimensions

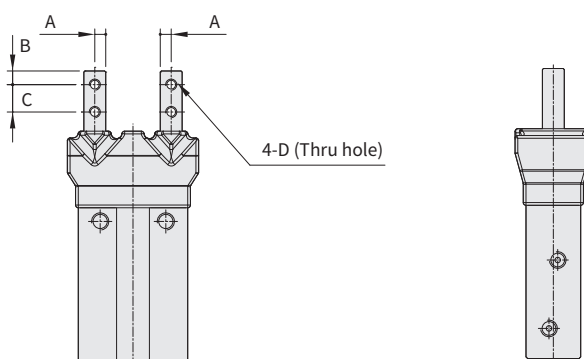
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HDZM ☐ B (Side tapped mounting)

HRZM ☐ B (Side tapped mounting)

Unit: mm

Model	Mark	A	B	C	D
HDZM / HRZM 06		2	2.5	5	M2x0.4P
HDZM / HRZM 10		2	3	5.7	M2.5x0.45P
HDZM / HRZM 16		2.5	4	7	M3x0.5P
HDZM / HRZM 20		4	5	9	M4x0.7P
HDZM / HRZM 25		5	6	12	M5x0.8P
HDZM / HRZM 32		6	7	14	M6x1.0P
HDZM / HRZM 40		7	9	17	M8x1.25P

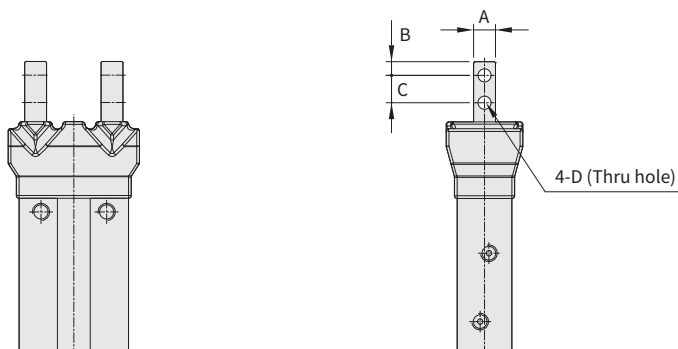


HDZM ☐ - C (Through-hole in opening/closing direction)

HRZM ☐ - C (Through-hole in opening/closing direction)

Unit: mm

Model	Mark	A	B	C	D
HDZM / HRZM 06		4	2.5	5	Ø2.4
HDZM / HRZM 10		5	3	5.7	Ø3
HDZM / HRZM 16		8	4	7	Ø3.5
HDZM / HRZM 20		10	5	9	Ø4.5
HDZM / HRZM 25		12	6	12	Ø5.5
HDZM / HRZM 32		15	7	14	Ø6.5
HDZM / HRZM 40		18	9	17	Ø8.5



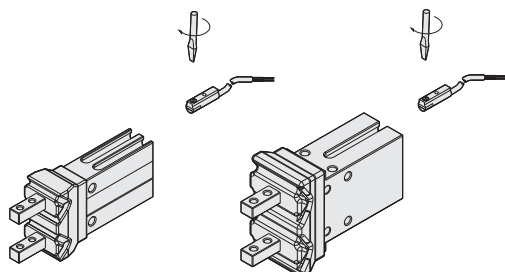
HDZM series Parallel Type Air Gripper/ with Dust Cover

Mounting type and operation of sensor switch

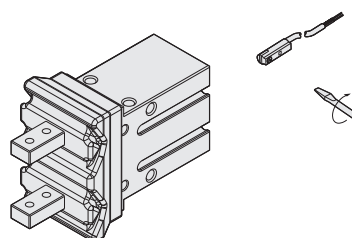
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Sensor switch installation

● HDZM 06 ~ 10



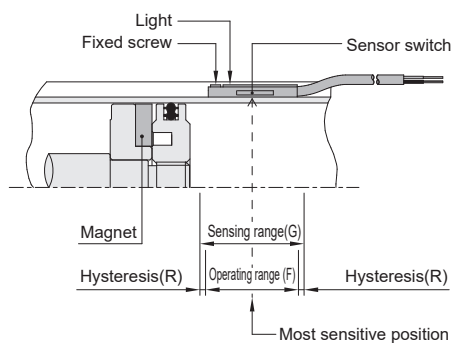
● HDZM 16 ~ 40



Sensing 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



Operating range

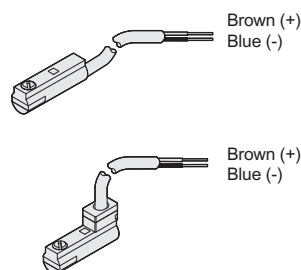
When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch. (Please refer to the below table)

Unit: mm

Model	CS-8G(B)	
Bore size	Operating range (F)	Hysteresis(R)
Ø06	3.5	0.5
Ø10	3.8	0.5
Ø16	4	0.5
Ø20	6.5	0.6
Ø25	6.5	0.8
Ø32	7	0.8
Ø40	6.8	0.6

Sensor switch introduction

CS-8G(B)



Voltage: DC 5~30V

HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU