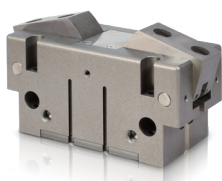


Driver components - Bevel sliding type

HDW/ HDWM/ HMW/ HMG/ HMY/ HDU/ HDQ/ HDQT/ HDQM/ HMQ/ HMT series

CHELIC



Item	Model	Bore size																				Page		
		10	16	18	20	22	25	27	32	34	40	44	50	55	63	66	70	80	92	100	125		160	
Bevel sliding type	 HDW series 2-Finger Heavy-load Type Air Gripper				●		●		●		●		●		●			●		●			P.6-14.82	
	 HDWM series 2-Finger Heavy-load Type Air Gripper/ with Dust Cover						●		●		●		●										P.6-14.95	
	 HMW series Wedge Slider Type Air Gripper			●		●		●		●		●		●		●			●		●		P.6-14.101	
	 HMG series Dual-sided Force Type Air Gripper					●		●		●		●		●									P.6-14.108	
	 HMY series Wedge Slider Type Air Gripper									●		●		●		●							P.6-14.116	
	 HDU series Stainless Finger Type Air Gripper	●	●		●		●		●															P.6-14.120
	 HDQ series Round Body Air Gripper		●		●		●		●		●		●		●			●		●				P.6-14.126
	 HDQT series 3-Finger Through-hole Type Air Gripper						●		●		●		●											P.6-14.172
	 HDQM series 3-Finger Air Gripper/ with Dust Cover						●		●		●		●											P.6-14.178
	 HMQ series 3-Finger Heavy-load Type Air Gripper						●		●		●		●					●		●		●	●	P.6-14.185
	 HMT series Three-sided Force Air Gripper												●				●						P.6-14.192	

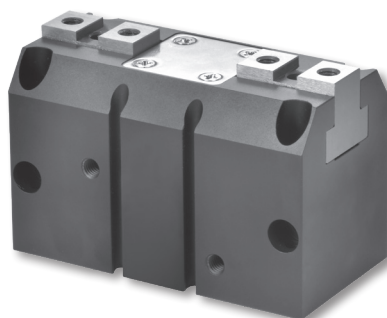
HDW series 2-Finger Heavy-load Type Air Gripper

Product features/ Code of order

CHELIC

Feature

- Wedge slider type
- Built-in magnet
- Large output and good stability



Specification

Item	Bore size (mm)	Ø20	Ø25	Ø32	Ø40	Ø50	Ø63	Ø80	Ø100
Action		Double acting							
Fluid		Air							
Pressure range	kgf / cm² (kPa)	3 ~ 7 (300 ~ 700)							
Ambient and fluid temperature	°C	-5 ~ 60 (No freezing status)							
Max. operation frequency	time/min	80			60			40	
Lubrication		Non-lube							
Sensing device		With magnet							

Code of order HDW 20 - 9D 2

1 2 3

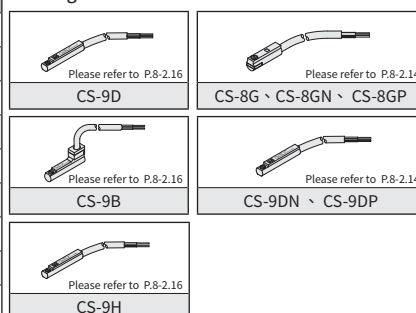
1

Mark	Bore size (mm)
20	Ø20
25	Ø25
32	Ø32
40	Ø40
50	Ø50
63	Ø63
80	Ø80
100	Ø100

2

Mark	Sensor switch
None	Without sensor switch
8G	CS-8G
8GN	CS-8GN
8GP	CS-8GP
9D	CS-9D
9B	CS-9B
9H	CS-9H
9DN	CS-9DN
9DP	CS-9DP

Image



3

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

HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

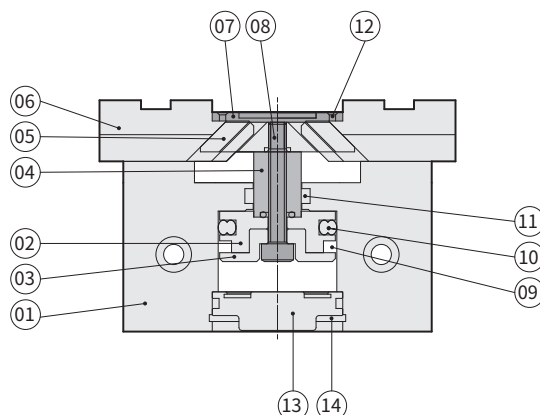
HDU

HDW series 2-Finger Heavy-load Type Air Gripper

Product features

CHELIC

Internal structure



Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	08	Magnetic cap screw	Alloy steel
02	Piston	Aluminum alloy	09	Magnet	Plastic
03	Magnet cap	Aluminum alloy	10	Piston packing	NBR
04	Shaft	Carbon steel	11	Shaft packing	NBR
05	Wedge slide base	Alloy steel	12	Finger cap screw	Alloy steel
06	Finger	Alloy steel	13	Rear cover	Aluminum alloy
07	Finger cap	Stainless steel	14	C Clip	Spring steel

Packing and O-ring material list

Unit: mm

Item	Piston packing	Shaft packing	Front cover O-ring	Rear cover O-ring
Model \ Quantity	1	1	1	1
HDW Ø20	COP-20	MYA-8	Ø18 X Ø1	Ø18 X Ø1
HDW Ø25	PZ-25	MYA-10	Ø22 X Ø1.5	Ø22 X Ø1.5
HDW Ø32	COP-32	MYA-12	Ø32 X Ø1	Ø32 X Ø1
HDW Ø40	COP-40	MYA-16	Ø37.82 X Ø1.78	Ø37.82 X Ø1.78
HDW Ø50	COP-50	MYA-20	Ø47.35 X Ø1.78	Ø47.35 X Ø1.78
HDW Ø63	COP-63	MYA-20	Ø59.5 X Ø2.5	Ø59.5 X Ø2.5
HDW Ø80	COP-80	GLY-25	Ø74.4 X Ø3.1	Ø74.4 X Ø3.1
HDW Ø100	COP-100	GLY-32	Ø94.4 X Ø3.1	Ø98.02 X Ø3.53

Note: The piston packing and shaft packing are from MITSUBISHI, SAKAGAMI or the same good level of quality material.

Product weight

Model	Weight (kg)
HDW Ø20	0.14
HDW Ø25	0.28
HDW Ø32	0.48
HDW Ø40	0.87
HDW Ø50	1.45
HDW Ø63	2.21
HDW Ø80	3.55
HDW Ø100	7.13

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

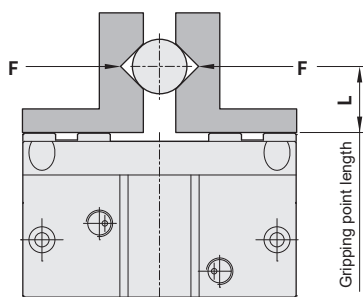
HDW series 2-Finger Heavy-load Type Air Gripper

Characteristics graph

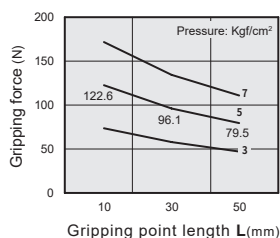
CHELIC

Gripping force characteristic

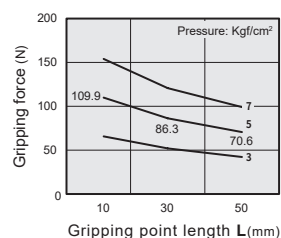
● HDW Closed gripping force



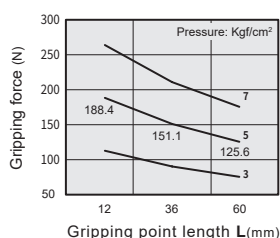
HDW 20 - OPEN



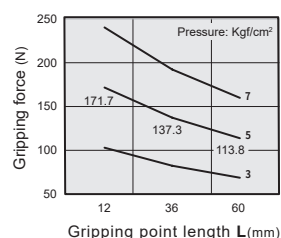
HDW 20 - CLOSE



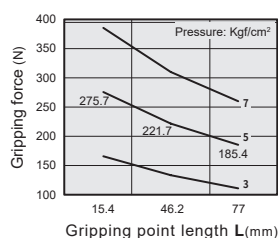
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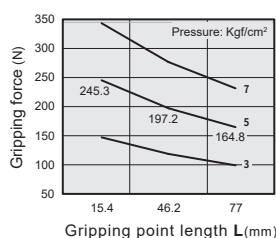
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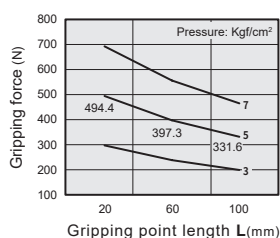
HDW 32 - OPEN



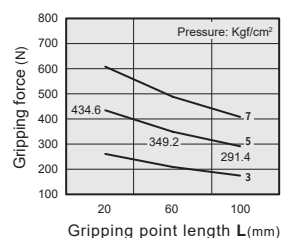
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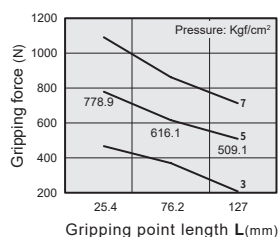
HDW 40 - OPEN



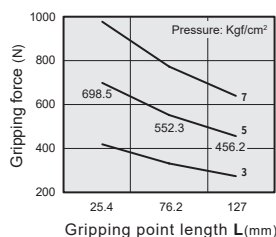
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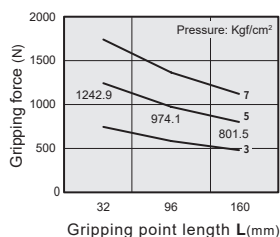
HDW 50 - OPEN



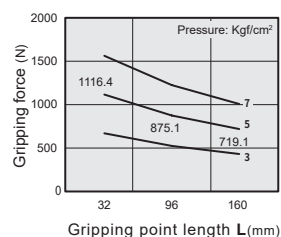
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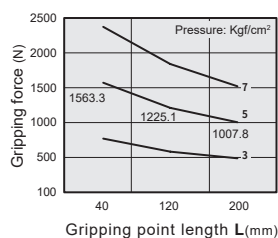
HDW 63 - OPEN



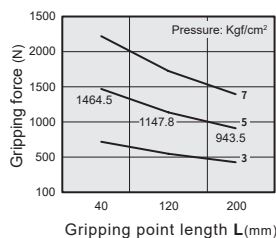
HDW 63 - CLOSE



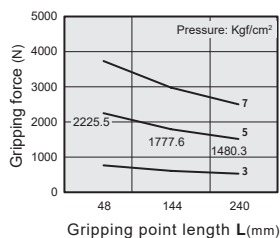
HDW 80 - OPEN



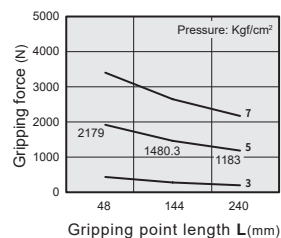
HDW 80 - CLOSE



HDW 100 - OPEN



HDW 100 - CLOSE



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU

HDW series 2-Finger Heavy-load Type Air Gripper

Operating type and data, Mounting type

CHELIC

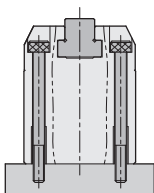
Operating type and data

Action	Model	Bore size (mm)	The smallest operating pressure (kgf/cm ²)	Thread port (mm)	Effective gripping force (N)	
Double acting	HDW 20	20	3	4-M3x0.5Px4.5 dp	Open	94
					Close	84
	HDW 25	25	3	4-M4x0.7Px5 dp	Open	148
					Close	134
	HDW 32	32	3	4-M5x0.8Px8 dp	Open	245
					Close	221
	HDW 40	40	3	4-M6x1.0Px10 dp	Open	451
					Close	402
	HDW 50	50	3	4-M6x1.0Px10 dp	Open	738
					Close	662
	HDW 63	63	3	4-M8x1.25Px13 dp	Open	1245
					Close	1117
	HDW 80	80	3	4-M10x1.5Px10dp	Open	1600
					Close	1500
	HDW 100	100	3	4-M12x1.75Px16 dp	Open	2300
					Close	2252

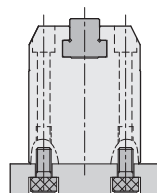
Note: The gripping force is the force of open and close gripper which in the length of gripping point is 30mm and acting pressure is 5kgf/cm².

Mounting type

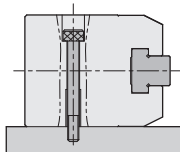
1. Apply the screw to through-holes of body



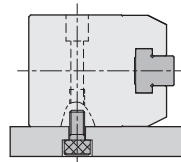
2. Apply the screw from bottom thread hole



3. Apply the screw to through-holes in the side of body



4. Apply the screw from side thread hole

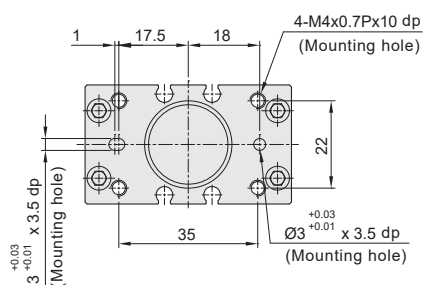
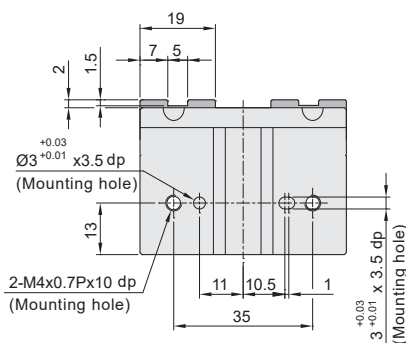
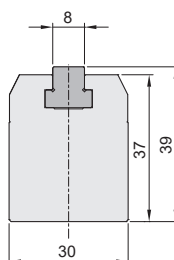
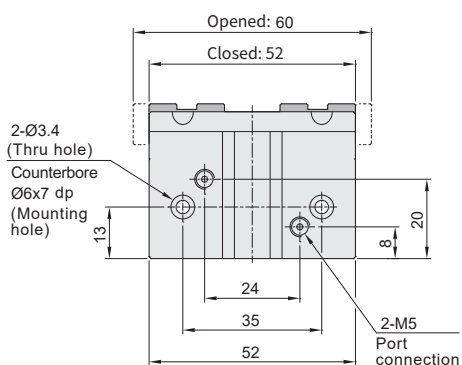
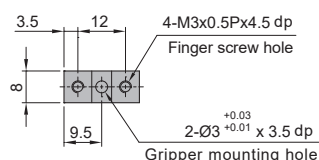
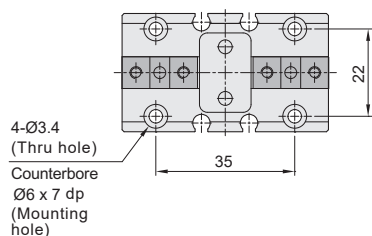


HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 20



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

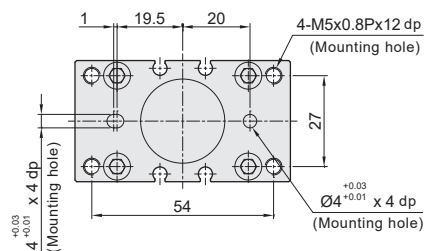
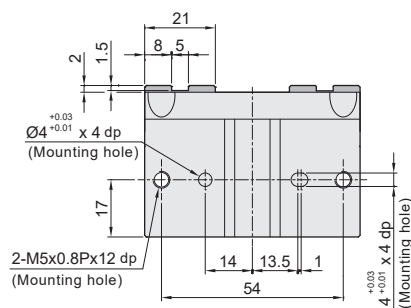
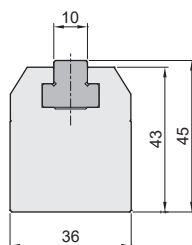
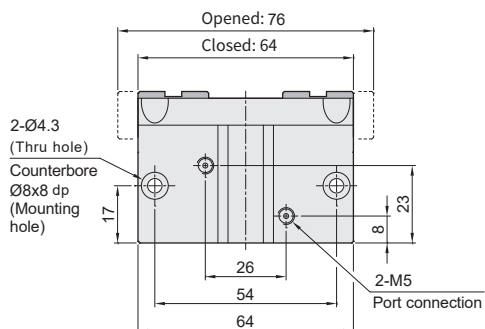
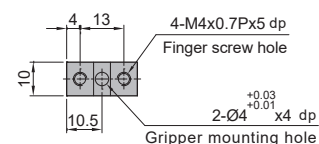
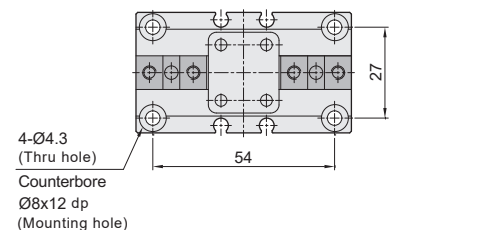
HDU

HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 25

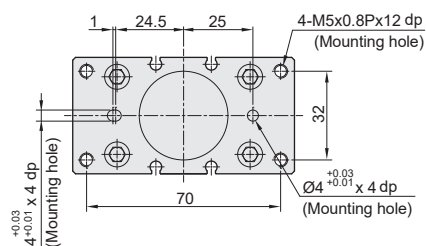
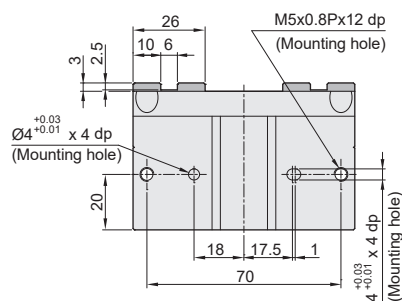
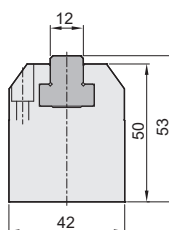
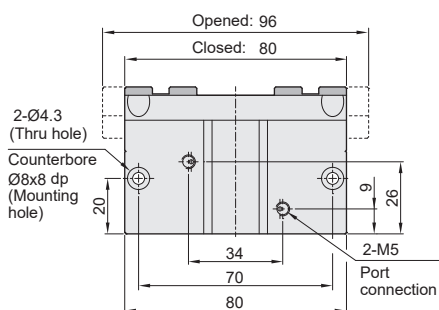
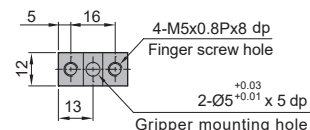
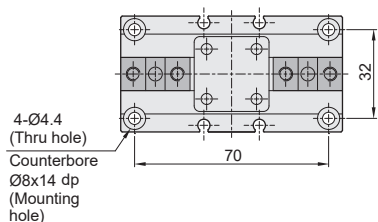


HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 32



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

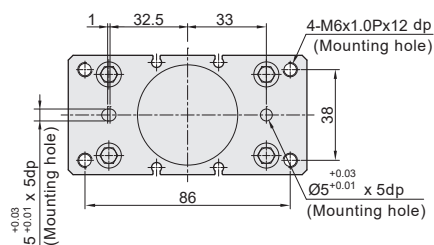
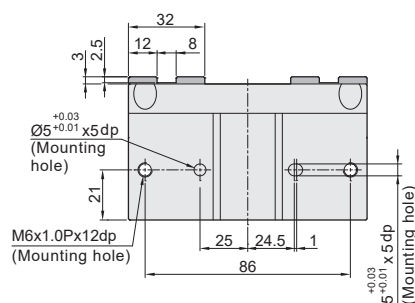
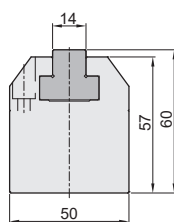
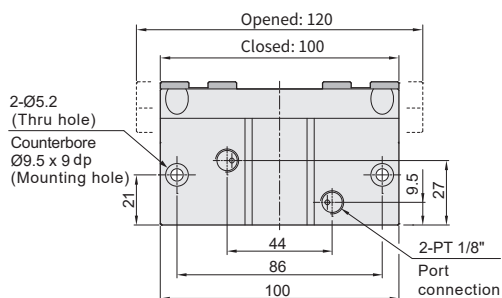
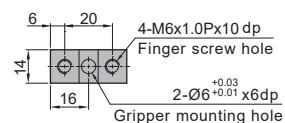
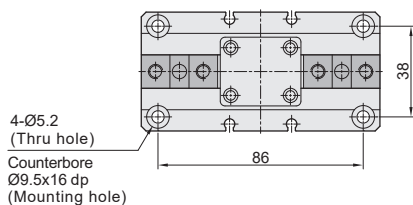
HDU

HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 40

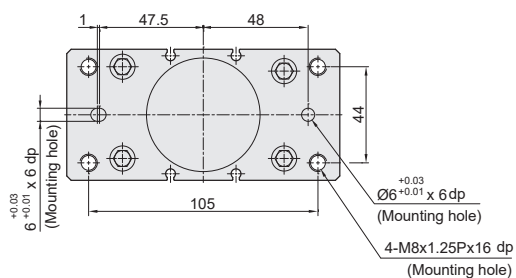
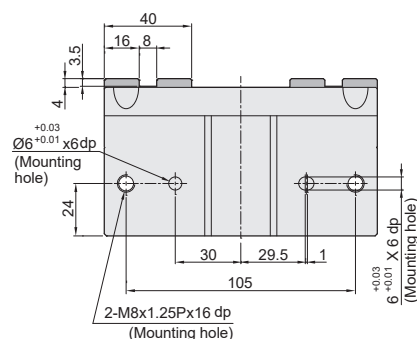
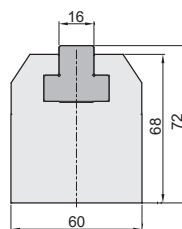
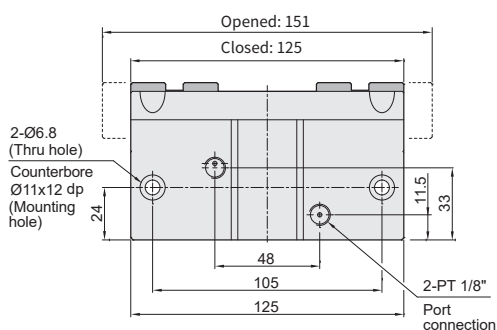
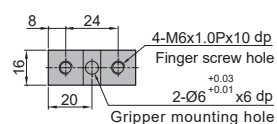
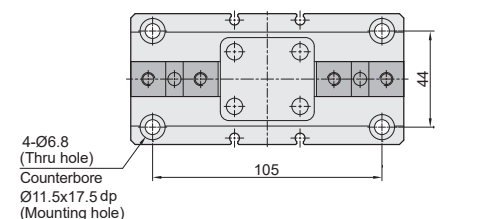


HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 50



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

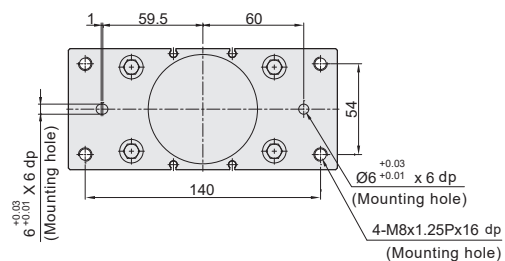
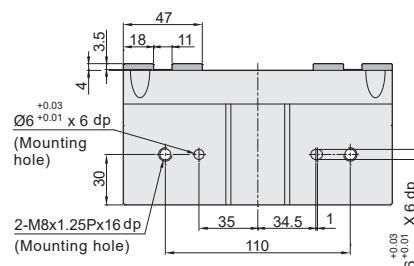
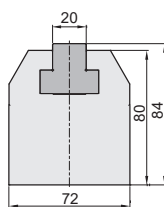
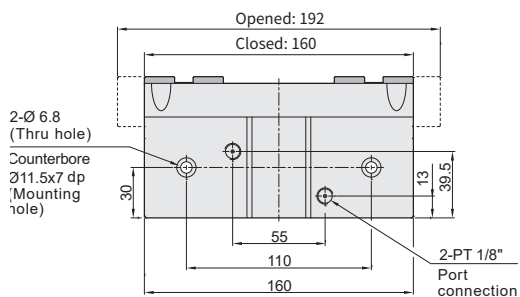
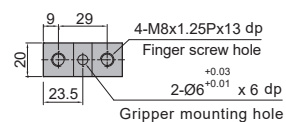
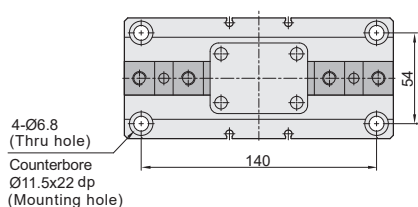
HDU

HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 63

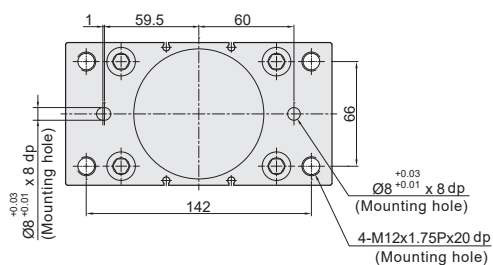
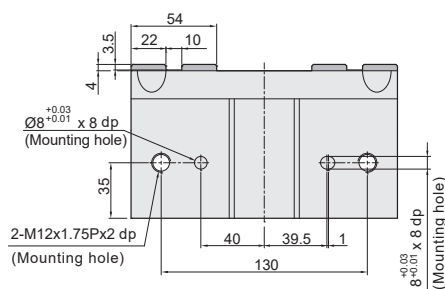
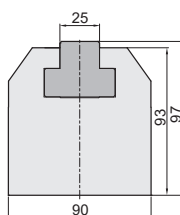
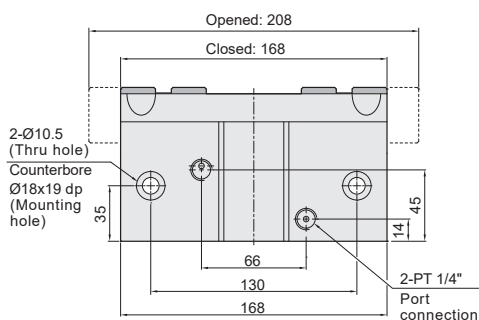
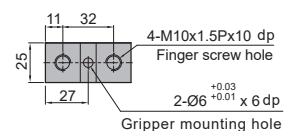
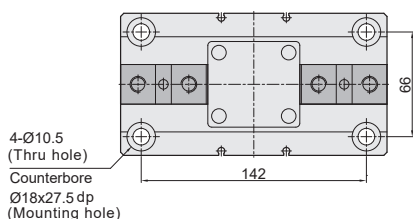


HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 80



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

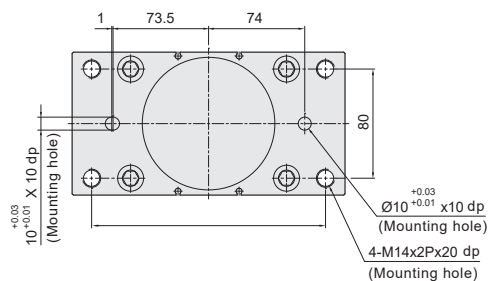
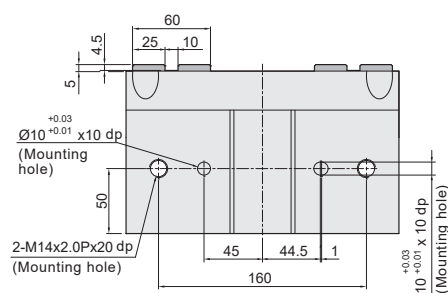
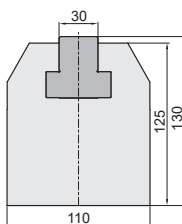
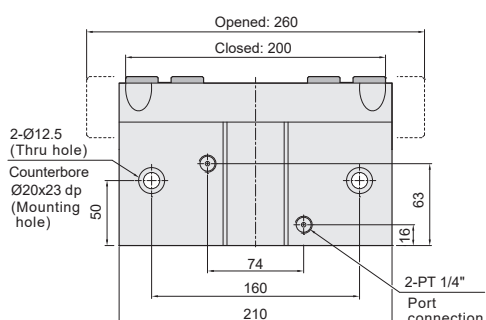
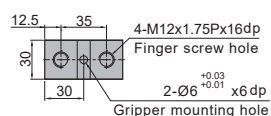
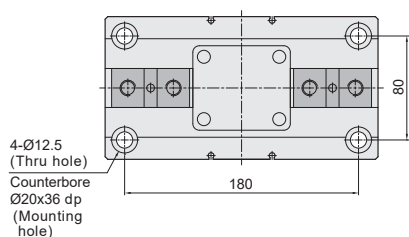
HDU

HDW series 2-Finger Heavy-load Type Air Gripper

Dimensions

CHELIC

HDW 100

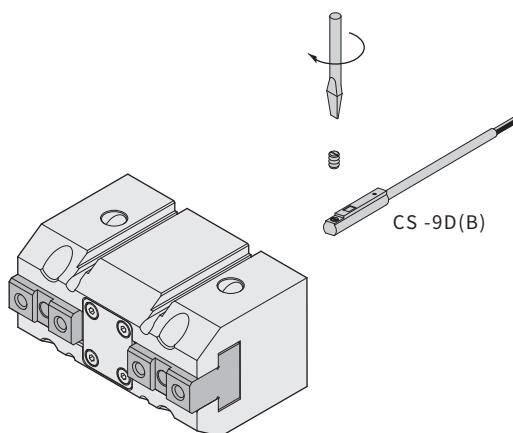
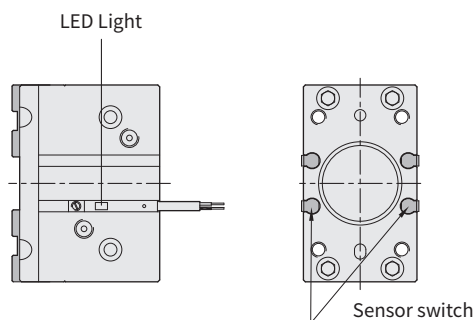


HDW series 2-Finger Heavy-load Type Air Gripper

Mounting type and operation of sensor switch

CHELIC

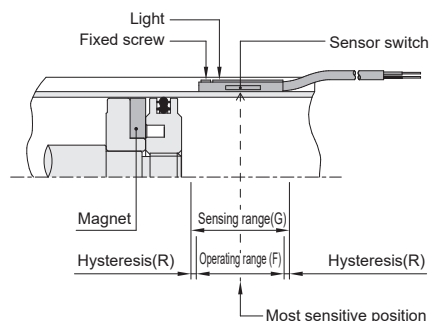
Sensor switch installation



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



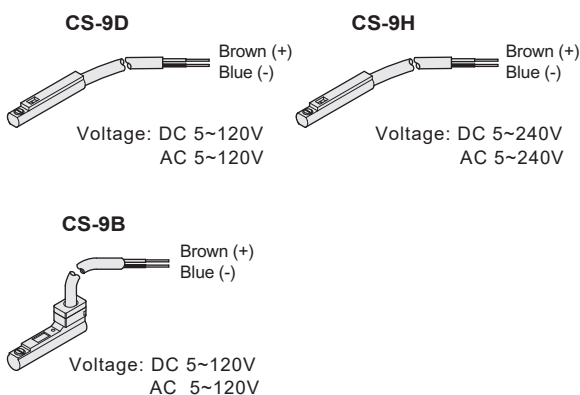
Operating range

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-9D(B)	
Bore size	Operating range (F)	Hysteresis(R)
20	8	1
25	9	1
32	7	1
40	8	1
50	9	1.2
63	10.5	1.2
80	13.5	1.4
100	13.5	1.5

Sensor switch introduction



HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

HDU