

HDU series Stainless Finger Type Air Gripper

Product features/ Code of order

CHELIC

Feature

- Stainless steel claw
- Basic dust prevention
- Multiple installation ways



Specification

Item	Bore size (mm)	Ø10	Ø16	Ø20	Ø25	Ø32
Action		Double acting				
Fluid		Air				
Pressure range	kgf / cm ² (kPa)	1.5 ~ 7 (150 ~ 700)				
Ambient and fluid temperature	° C	0 ~ 60				
Max. operation frequency	time/min	100				
Lubrication		Lubrication free type				
Max. gripper point length (L)	mm	25	35	55	65	80
夾爪開合行程	mm	4	8	12	14	16
Port size	mm	M3X0.5P	M5X0.8P			
Sensing device		With magnet				

Note: P: operating pressure 5kgf/cm², L: the gripping point length is 30mm

Code of order **HDU 25 - 8G 2**

1 — 2 — 3

1

Mark	Bore size (mm)
10	Ø10
16	Ø16
20	Ø20
25	Ø25
32	Ø32

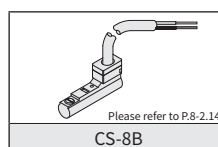
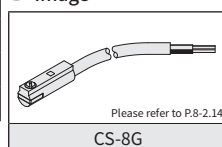
3

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

2

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

Image

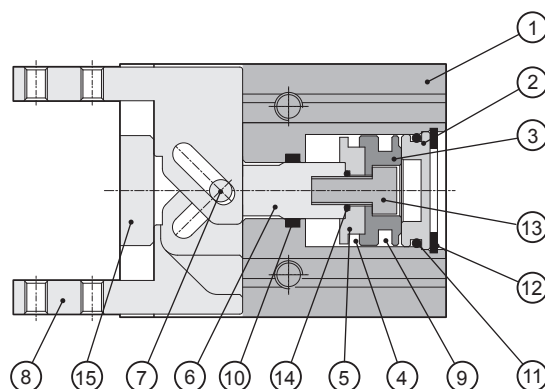


HDU series Stainless Finger Type Air Gripper

Product features

CHELIC

Internal structure



Components and material list

No.	Item	Material	No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	06	Shaft	Stainless steel	11	Rear cover O-ring	NBR
02	Rear cover	Aluminum alloy	07	Shaft pin	Bearing steel	12	Clip	Spring steel
03	Piston	Aluminum alloy	08	Gripper fingers	Stainless steel	13	Piston set screw	Alloy steel
04	Magnet	Rare earth metal	09	Piston packing	NBR	14	Shaft O-ring	NBR
05	Magnet cap	Aluminum alloy	10	Shaft packing	NBR	15	Cover	Stainless steel

Packing and O-ring material list

Item		Piston packing	Shaft packing	Rear cover O-ring
Model	Quantity	1	1	1
HDU Ø10		APA - 10	MY - 6A	Ø8 x Ø1
HDU Ø16		APA - 16	MY - 8A	Ø13.2 x Ø1.5
HDU Ø20		APA - 20	MY - 10A	Ø17.5 x Ø1.5
HDU Ø25		APA - 25	MY - 12A	Ø22 x Ø1.5
HDU Ø32		APA - 32	MYA - 16	Ø28.5 x Ø2

Unit: mm

Product weight

Model	Weight (kg)
HDU Ø10	0.07
HDU Ø16	0.11
HDU Ø20	0.22
HDU Ø25	0.37
HDU Ø32	0.60

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

HDD

HDS

HDM

HDP

HDPM

HDZ

HDZL

HDZM

HDW

HDWM

HMW

HMG

HMY

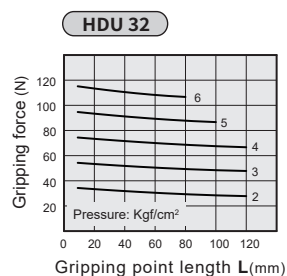
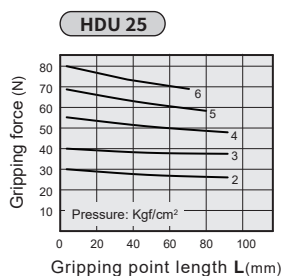
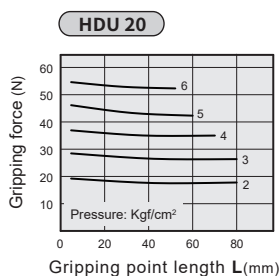
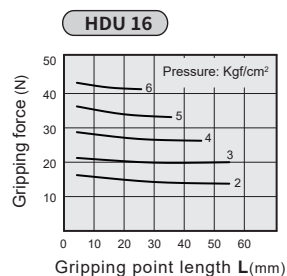
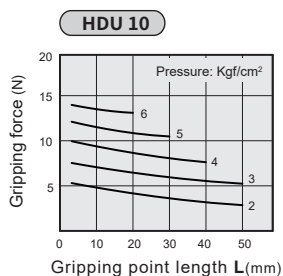
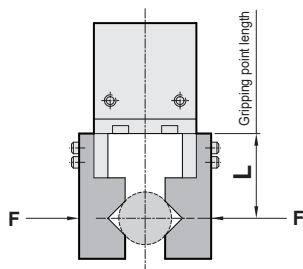
HDU

HDU series Stainless Finger Type Air Gripper

Characteristics graph, Operating type and data, Mounting type

CHELIC

Gripping force characteristic



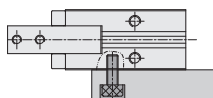
Operating type and data

Action	Model	Bore size (mm)	The smallest operating pressure (kgf/cm²)	Thread port (mm)	Effective gripping force (N)	
Double acting	HDU 10	10	2.2	4-M3x0.5P	Open	17
					Close	11
	HDU 16	16	1.5	4-M3x0.5P	Open	45
					Close	34
	HDU 20	20	1.5	4-M4x0.7P	Open	66
					Close	42
	HDU 25	25	1.5	4-M5x0.8P	Open	104
					Close	65
	HDU 32	32	1.5	4-M6x1.0P	Open	193
					Close	158

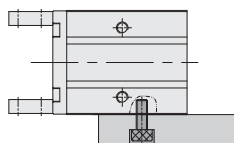
Note: The gripping force is the force of open and close gripper which in the length of gripping point is 30mm and acting pressure is 5kgf/cm².

Mounting type

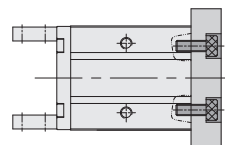
1. Apply the screw from bottom thread hole.



2. Thread in the side of body



3. Thread in the bottom

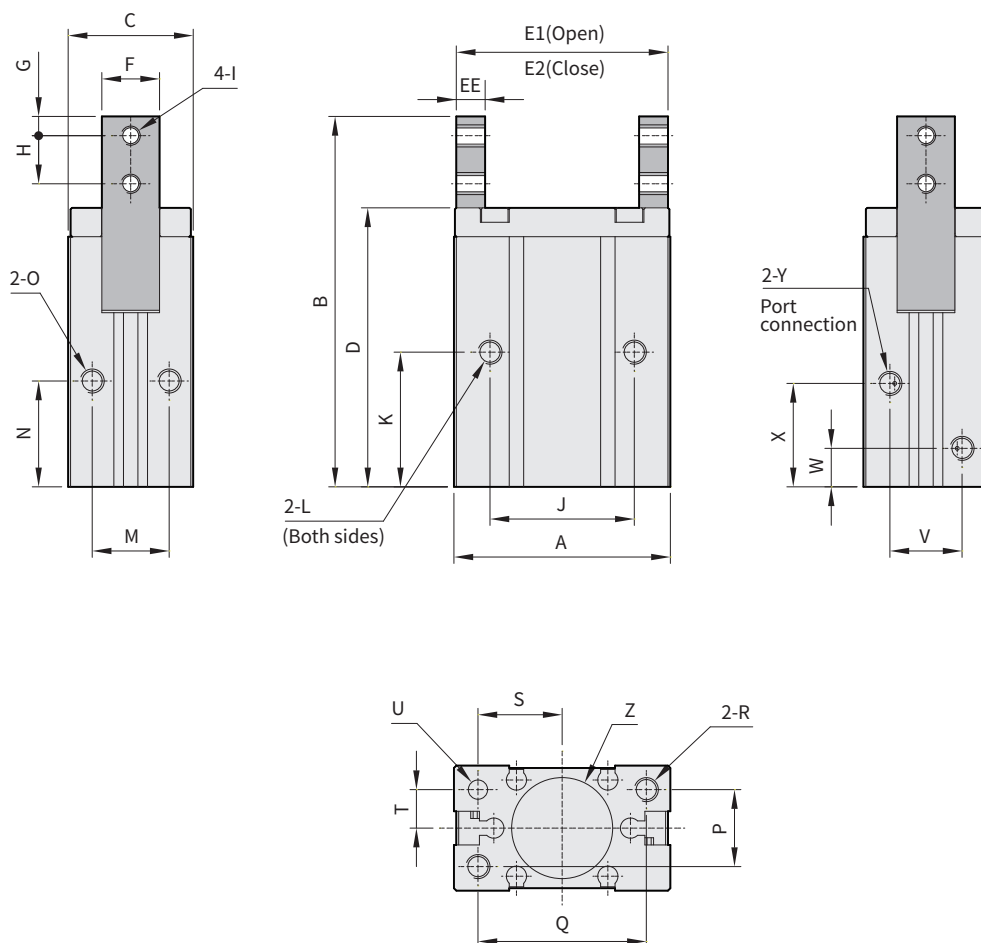


HDU series Stainless Finger Type Air Gripper

Dimensions

CHELIC

HDU 10~32



Unit: mm

Mark	A	B	C	D	E1	E2	EE	F	G	H	I	J	K	L	M	N
Model																
HDU 10	23	51	16	38.5	22	18	4	7	3	6	M3x0.5P	18	23	M3x0.5Px8dp	10	15.5
HDU 16	34	62	22	47	33	25	5	11	3	8	M3x0.5P	26	26	M4x0.7Px11dp	14	20
HDU 20	45	77	26	58	44	32	6	12	4	10	M4x0.7P	30	28	M5x0.8Px13dp	16	22
HDU 25	52	90	32	66.5	51	37	8	14	5	12	M5x0.8P	36	35	M6x1.0Px16dp	20	24.5
HDU 32	60	106	40	75	60	44	9	18	7	15	M6x1.0P	44	37	M6x1.0Px20dp	26	30

Unit: mm

Mark	O	P	Q	R	S	T	U	V	W	X	Y	Z
Model												
HDU 10	M3x0.5Px5dp	10	17	M3x0.5Px5dp	8.5	5	Ø2x3dp	10	7.5	18.5	M3x0.5P	Ø11x1.5dp
HDU 16	M4x0.7Px6dp	14	27.5	M4x0.7Px7dp	14	7	Ø3x3dp	13	7.5	20.5	M5x0.8P	Ø17x1.5dp
HDU 20	M5x0.8Px8dp	16	35	M5x0.8Px8dp	17.5	8	Ø4x4dp	15	8	21.5	M5x0.8P	Ø21x1.5dp
HDU 25	M6x1.0Px10dp	20	40	M6x1.0Px10dp	20	10	Ø4x4dp	18	8	26.2	M5x0.8P	Ø26x1.5dp
HDU 32	M6x1.0Px10dp	26	46	M6x1.0Px10dp	23	13	Ø5x5dp	24	10	29	M5x0.8P	Ø34x1.5dp

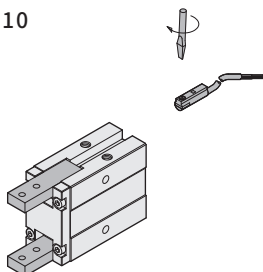
HDU series Stainless Finger Type Air Gripper

Mounting type and operation of sensor switch

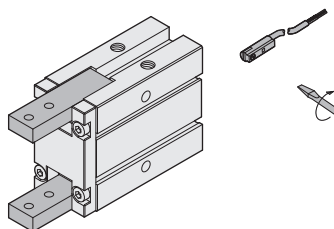
CHELIC

Sensor switch installation

HDU 10



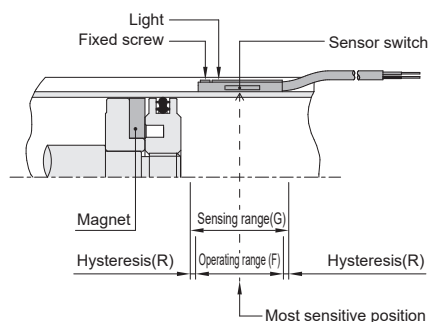
HDU 16~32



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

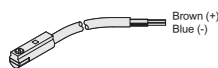
When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch.(Please refer to the below table)

Unit: mm

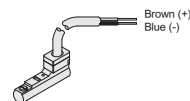
Model	CS-8G	
Bore size	Operating range (F)	Hysteresis(R)
Ø10	3.5	0.6
Ø16	4	0.8
Ø20	6	1
Ø25	6	1
Ø32	7	1.2

Sensor switch introduction

CS-8G



CS-8B



Voltage: DC 5 ~ 30V