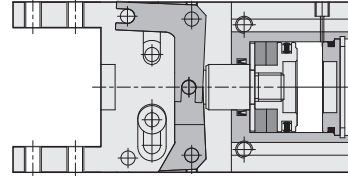


HDP series - Parallel gripper

Operation specification and Ordering expression

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Internal structure

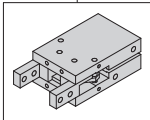
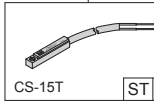
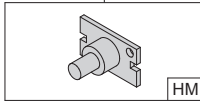
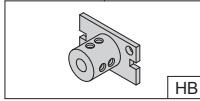


Specification

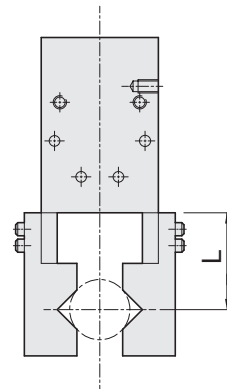
Item	Model	HDP-10	HDP-16	HDP-20	HDP-25	HDP-32
Bore size		10	16	20	25	32
Type of operation		Double acting				
Fluid		Air				
Pressure range	kgf/cm ² (kpa)	1.5 ~ 7 (150 ~ 700)				
Ambient and fluid temperature	°C	0 ~ 60				
Max. operation frequency	min	100				
Lubrication	Cylinder	Lubrication free				
	Lever section	Lubrication required				
Theoretical gripping force(M) Note1 Kgf-cm	Closed side	0.8	2.4	4.7	7.5	10
	Opened side	0.5	1.8	3.5	6.0	8.5
Length of maximum gripping point (L)	mm	30	40	60	70	85
Lever open / close angles	mm	4	8	12	14	16
Port size		M3 X 0.5P	M5 X 0.8P			
Sensing device		With magnet				

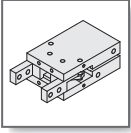
Note 1. P: Pressure= 5 Kgf/cm², L: Gripping point length= 30mm.

How to order

HDP	20	ST	2	HM
Model	Bore size	Sensor switch		Mounting bracket
	10 - Ø10 mm 16 - Ø16 mm 20 - Ø20 mm 25 - Ø25 mm 32 - Ø32 mm			
HDP : Parallel gripper		None : without sensor switch [ST] : Sensor switch code (CS-15T) [SB] : Sensor switch code (CS-15B) [SG] : Sensor switch code (CS-5G) [SGN] : Sensor switch code (CS-5GN) [SGP] : Sensor switch code (CS-5GP) [2] : Number of sensor switch 1 = 1 PCS 2 = 2 PCS ※ HDS 10 must apply CS 5G sensor		None : Without Mounting bracket [HM] : HM type Mounting bracket (please refer to P.6-12.31)  None : Without Mounting bracket [HB] : HB type Mounting bracket (please refer to P.6-12.31) ※ Note : Ø10 ~ Ø32 use

Gripping point length

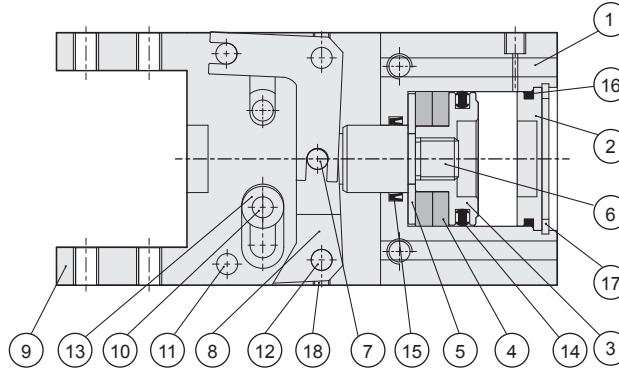




HDP series - Parallel gripper

Components and Material list

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Components and Material list

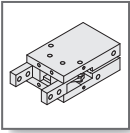
No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	10	Slide guide pin	Bearing steel
02	End cover	Aluminum alloy	11	Finger pin	Bearing steel
03	Piston	Copper	12	Action lever pin	Bearing steel
04	Magnet	Rubber	13	Bearing	Alloy steel
05	Magnet cover	Copper	14	Piston packing	NBR
06	Piston rod	Stainless steel	15	Rod packing	NBR
07	Rod pin	Bearing steel	16	End cover o-ring	NBR
08	Action lever	Alloy steel	17	Snap ring	Spring steel
09	Finger	Alloy steel	18	Hexagon screw	Alloy steel

Packing and O-Ring

Item	Piston packing	Shaft packing	Rear cover O-ring
Number	1	1	1
Bore size mm			
Ø10	COP-10	DYR-6	Ø8XØ1.5
Ø16	COP-16	DYR-8K	Ø13.2XØ1.5
Ø20	COP-20	DYR-10SK	Ø17.5XØ1.5
Ø25	COP-25	DYR-12	Ø22XØ1.5
Ø32	COP-32	DYR-16	Ø28.5XØ2.0

Weight

Model	weight kg
HDP - 10S	0.12
HDP - 16S	0.16
HDP - 20S	0.55
HDP - 25S	0.75
HDP - 32S	1.23

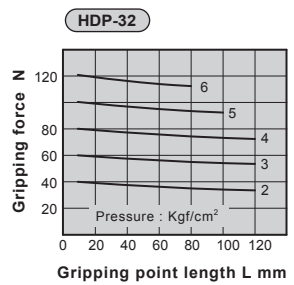
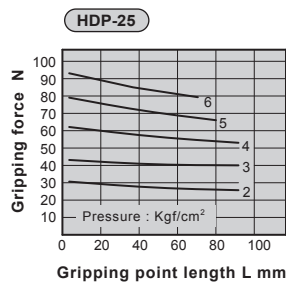
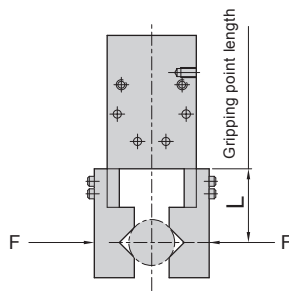
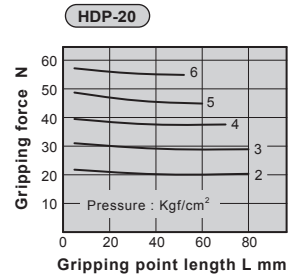
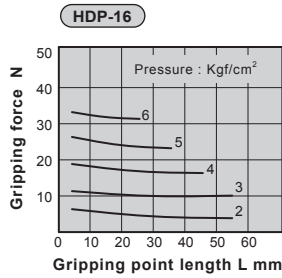
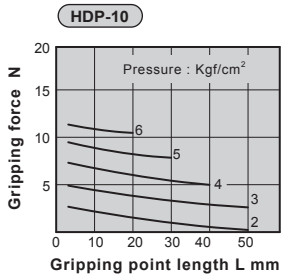


HDP series - Parallel gripper

Gripping force characteristic Operating type, Data, and Mounting type

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Gripping force characteristic



Operating type and Data

Operating type	Model	Bore size (mm)	The smallest operating pressure (Mpa)	Thread port (mm)	Effective gripping force Kgf(N)	
Double acting	HDP - 10	10	0.22	4-M3x0.5	Open	0.5 (4.9)
					Close	0.8 (7.8)
	HDP - 16	16	0.1	4-M3x0.5	Open	1.8 (17.6)
					Close	2.4 (23.5)
	HDP - 20	20	0.1	4-M4x0.7	Open	3.5 (34.3)
					Close	4.7 (46)
	HDP - 25	25	0.1	4-M5x0.8	Open	6.0 (58.8)
					Close	7.5 (73.5)
	HDP - 32	32	0.1	4-M6x1.0	Open	8.5 (83.3)
					Close	10.0 (98)

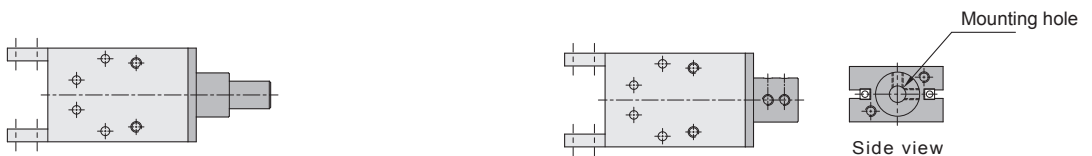
Note :The gripping force is the force of open and close gripper which in the length of gripping point is 30mm and acting pressure is 0.5Mpa.

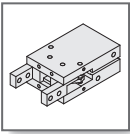
Mounting type

1. Apply the screw from bottom thread hole.
2. Apply the screw from side thread hole.



3. Apply HM mounting bracket in the bottom.
4. Apply HB mounting bracket in the bottom.



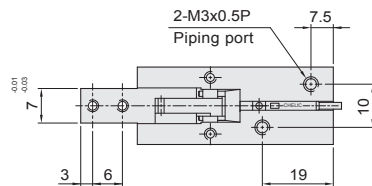
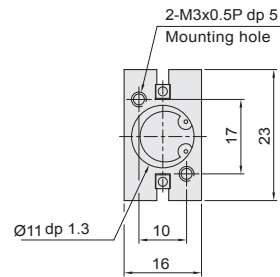
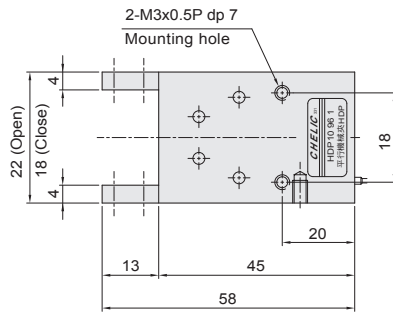
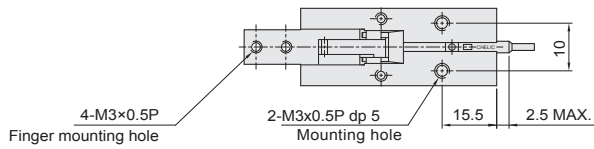


HDP series - Parallel gripper

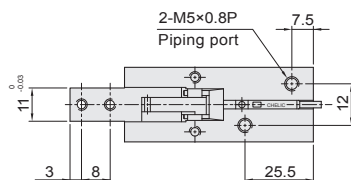
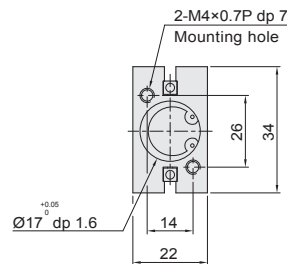
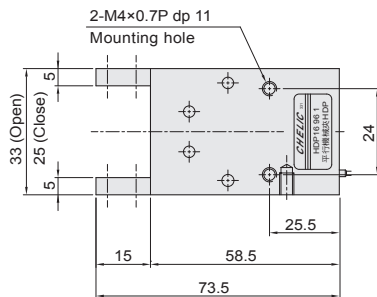
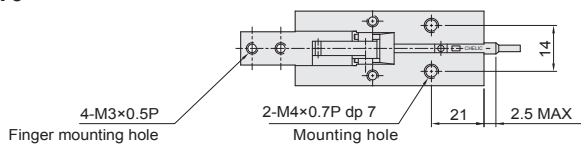
External dimension

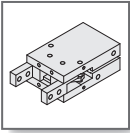
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HDP - 10



HDP - 16



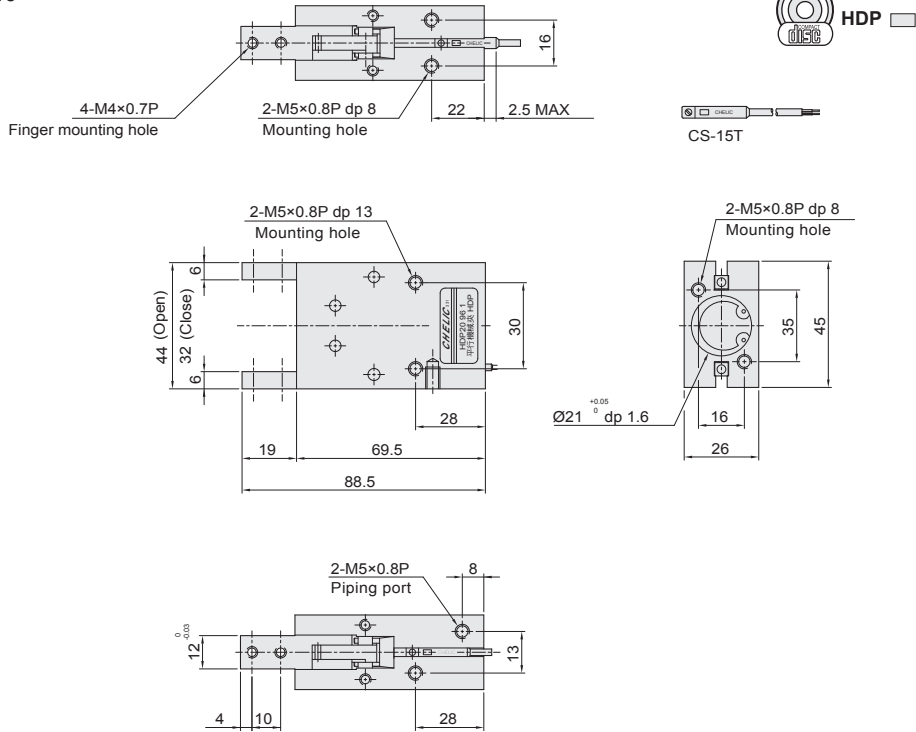


HDP series - Parallel gripper

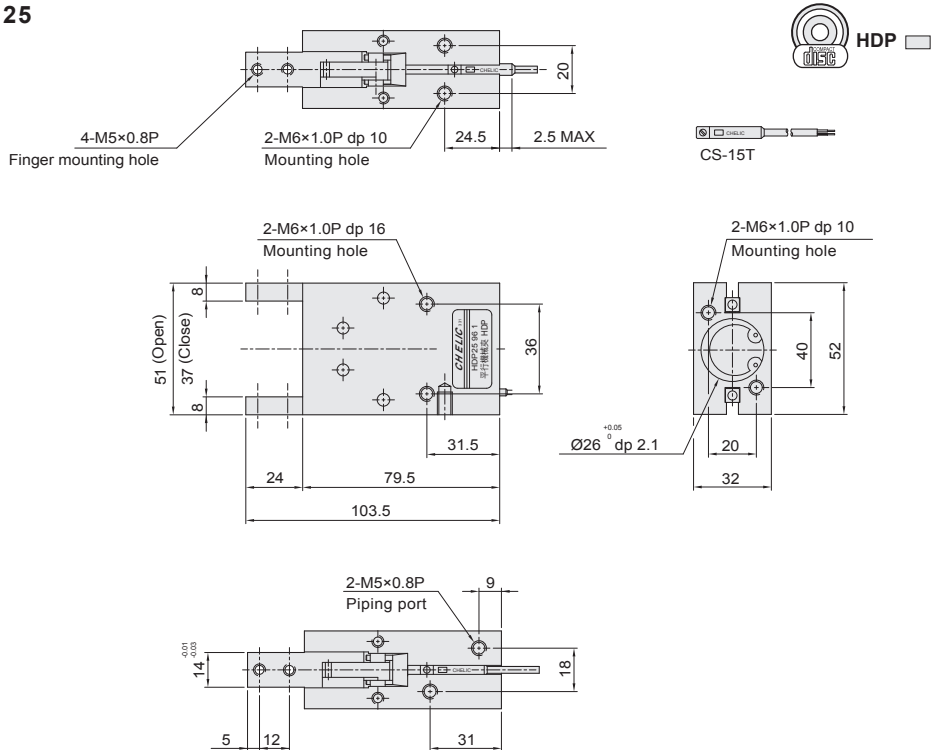
External dimension

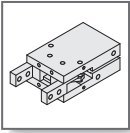
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HDP - 20



HDP - 25



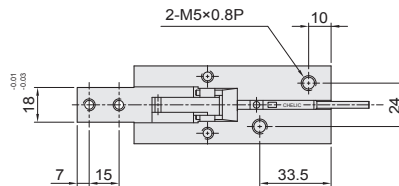
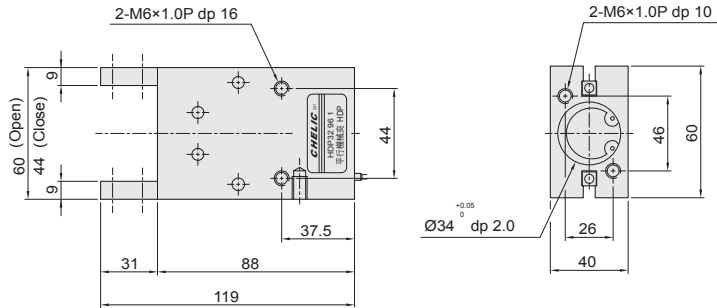
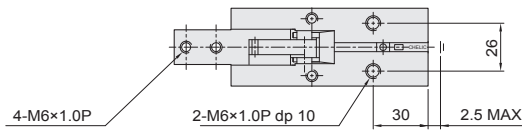


HDP series - Parallel gripper

External dimension – Ø32, Mounting bracket

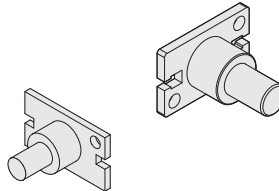
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► HDP - 32



► Mounting bracket

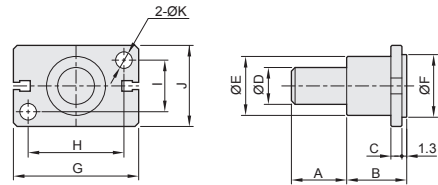
(Applicable to HDS, HRS, HDP series)



► HM type Mounting bracket

(Available to internal mounting)

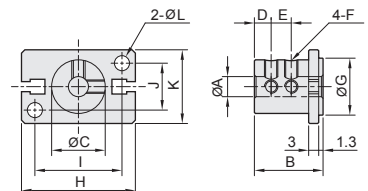
Mark Type	A	B	C	D	E	F	G	H	I	J	K
HM10	10	10	2	8	12	13	27	17	10	16	3.5
HM16	15	15	3	10	16	17	34	26	14	22	4.5
HM20	15	15	3	10	18	21	45	35	16	26	5.5
HM25	25	17	5	14	26	26	52	40	20	32	6.6
HM32	25	20	6	16	30	34	60	46	26	40	6.6

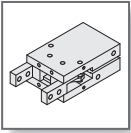


► HB type Mounting bracket

(Available to internal mounting)

Mark Type	A	B	C	D	E	F	G	H	I	J	K	L
HB16	6	20.5	16	5	6	M4 x 0.7p	17	34	26	14	22	4.5
HB20	8	20.5	20	7	7	M4 x 0.7p	21	45	35	16	26	5.5
HB25	10	30.5	25	8	10	M4 x 0.7p	26	52	40	20	32	6.5
HB32	12	40.5	32	10	15	M4 x 0.7p	34	60	46	26	40	6.5





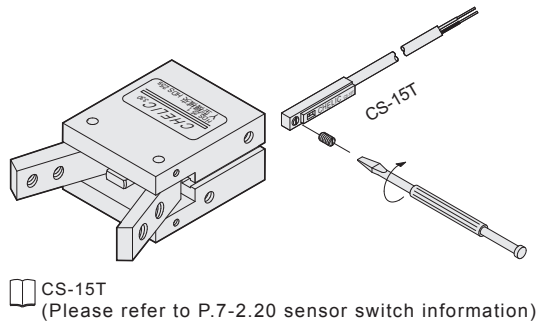
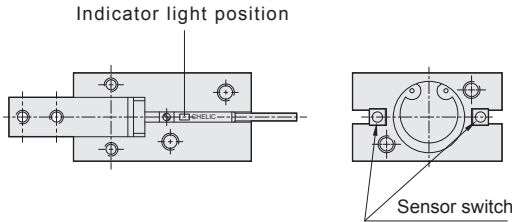
HDP series - Parallel gripper

How to use and Sensor switch installation

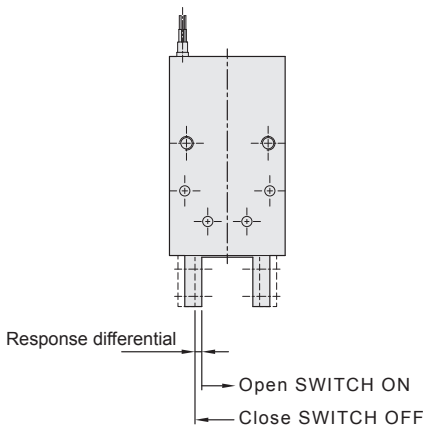
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▶ HDP sensor switch installation

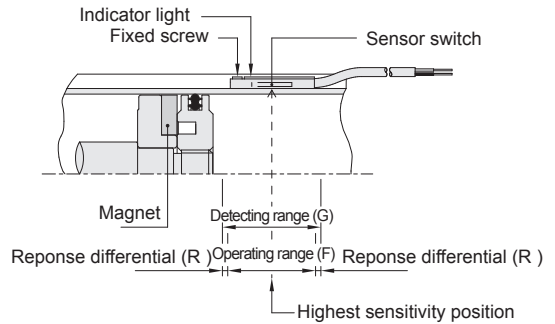
● Sensor switch installation and position



● Response differential and position adjustment



● Response differential and position adjustment



▶ Detecting 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.

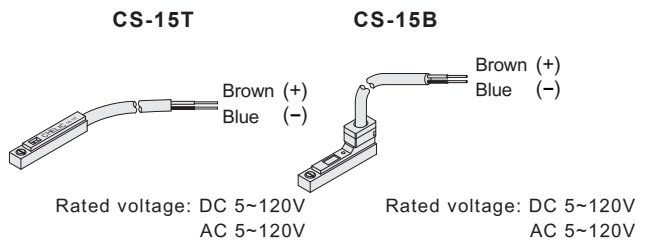
▶ Operating range

When piston 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 or right table)

Unit: mm

Item	CS-15T(B)	
	Operating range (F)	Reponse differentia (R)
Bore size		
10	3	1
16	5	1
20	8.5	1
25	10	1.8
32	10	2

▶ Sensor switch introduction



CS-5G

