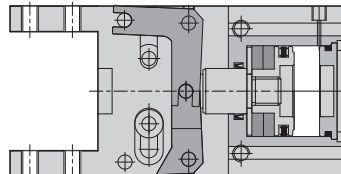


HDP series - Parallel gripper

Operation specification and Ordering expression

CHELIC PNEUMATIC

Internal structure

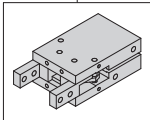
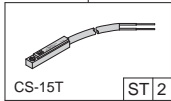
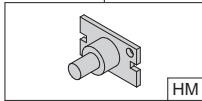
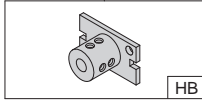


Specification

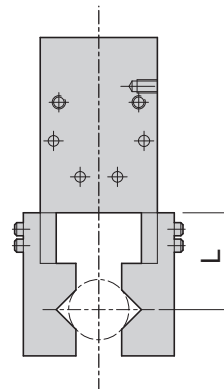
Item	Model	HDP-10	HDP-16	HDP-20	HDP-25	HDP-32
Bore size		10	16	20	25	32
Type of operation		Double acting				
Fluid		Air				
Pressure range	kgf/cm ² (kpa)	1.5 ~ 7 (150 ~ 700)				
Range of service temperature	°C	0 ~ 60				
Max. operation frequency	min	100				
Lubrication	Cylinder	Lubrication free				
	Lever section	Required (Lubricator)				
Theoretical holding force Note1	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			
Magnet 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	 CS-15T ST 2	 HM
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	None : Without Mounting bracket HM : HM type Mounting bracket (please refer to P.3-12.22)  HB None : Without Mounting bracket HB : HB type Mounting bracket (please refer to P.3-12.22) ※ Note : Ø10 ~ Ø32 use

Length of gripping point



HDS
Angular
Gripper

HDM
180° Angular
Gripper

HDP
Parallel
Gripper

HDF
Parallel
Gripper

HDZ
Parallel
Gripper

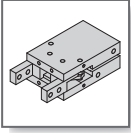
HDZL
Parallel
Gripper

HDW
Parallel
Gripper

HDL
Gripper

HDT
Gripper

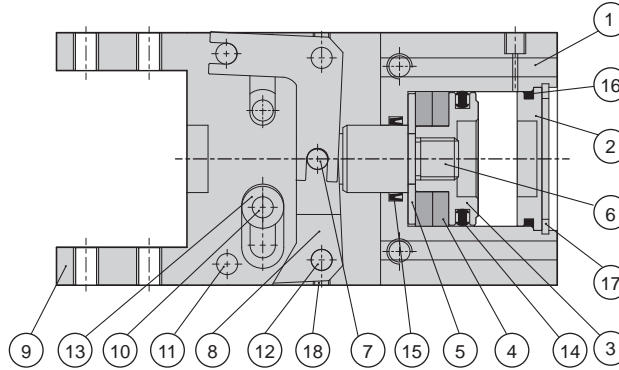
HDR
Gripper



HDP series - Parallel gripper

Components and Material list

CHELIC PNEUMATIC



Components and Material list

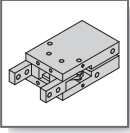
No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	10	Slide guide pin	Bearing steel
02	End cover	Aluminum alloy	11	Finger pin	Bearing steel
03	Piston	Copper	12	Action lever pin	Bearing steel
04	Magnet	Rubber	13	Bearing	Alloy steel
05	Magnet cover	Copper	14	Piston packing	NBR
06	Piston rod	Stainless 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	Rod packing	End 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

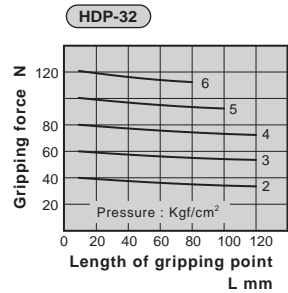
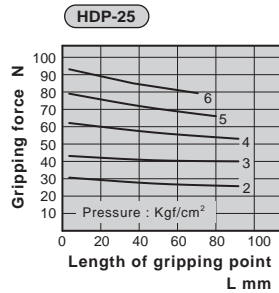
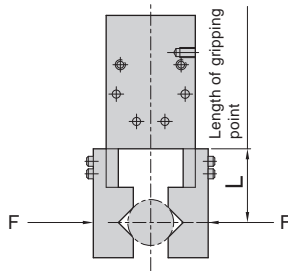
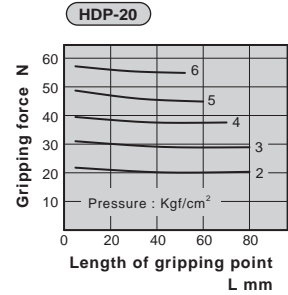
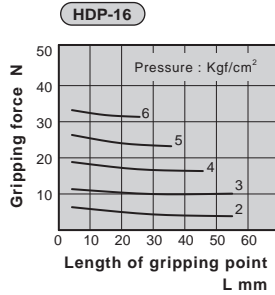
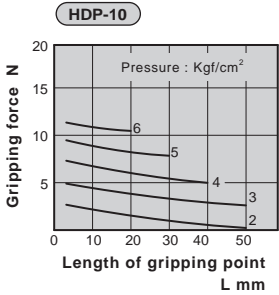
Model	weight kg
HDP - 10S	0.12
HDP - 16S	0.16
HDP - 20S	0.55
HDP - 25S	0.75
HDP - 32S	1.23



HDP series - Parallel gripper

Gripping force characteristic Operating type , Data , and Mounting type **CHELIC PNEUMATIC**

Gripping force characteristic



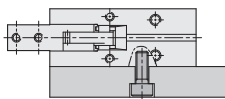
Operating type and Data

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)

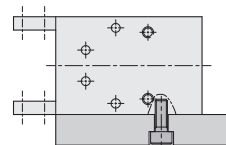
Note : The gripping force is the force of open and close gripper which is in the length of gripping point is 30mm and acting pressure is 0.5Mpa

Mounting type

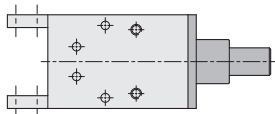
1. Use the thread in the bottom



2. Use the thread in the side of body



3. Use HM type Mounting bracket in the bottom



4. Use HB type Mounting bracket in the bottom



Pin hole positioning

Side figure

HDS
Angular Gripper

HDM
180° Angular Gripper

HDP
Parallel Gripper

HDF
Parallel Gripper

HDZ
Parallel Gripper

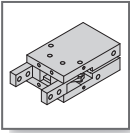
HDZL
Parallel Gripper

HDW
Parallel Gripper

HDL
Gripper

HDT
Gripper

HDR
Gripper

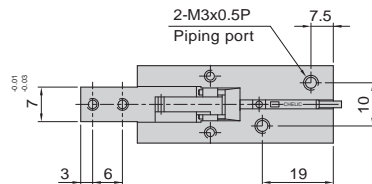
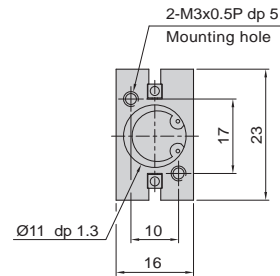
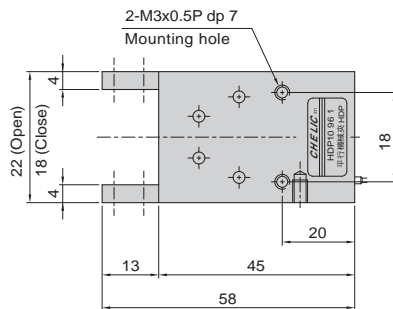
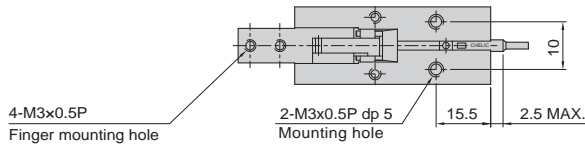


HDP series - Parallel gripper

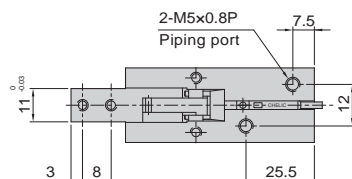
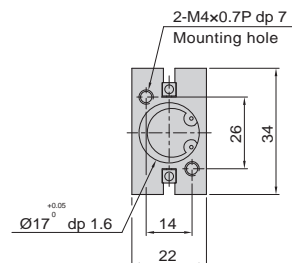
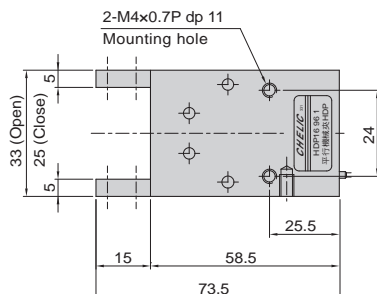
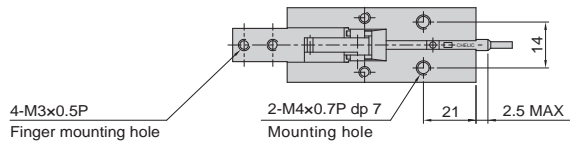
External dimension

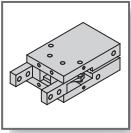
CHELIC PNEUMATIC

► HDP - 10



► HDP - 16



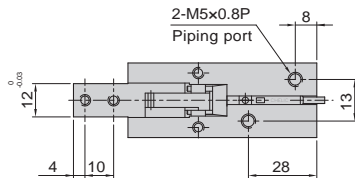
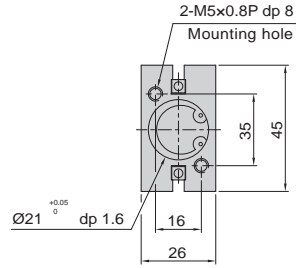
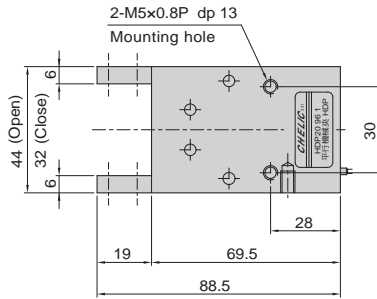
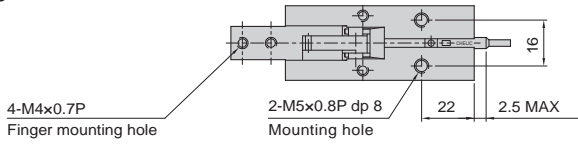


HDP series - Parallel gripper

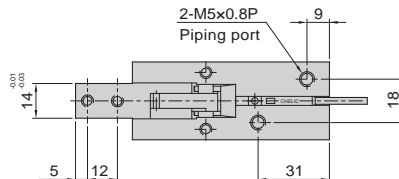
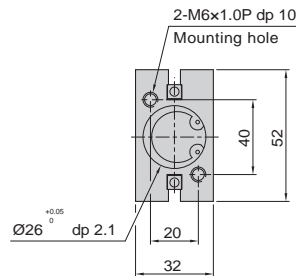
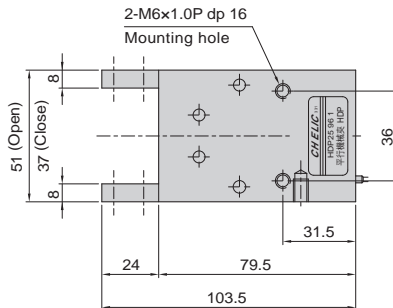
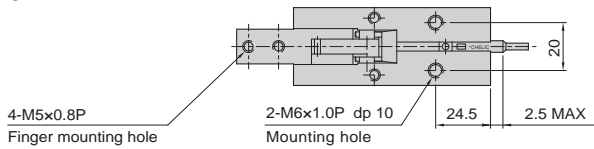
External dimension

CHELIC PNEUMATIC

HDP - 20



HDP - 25



HDS
Angular
Gripper

HDM
180° Angular
Gripper

HDP
Parallel
Gripper

HDF
Parallel
Gripper

HDZ
Parallel
Gripper

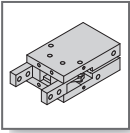
HDZL
Parallel
Gripper

HDW
Parallel
Gripper

HDL
Gripper

HDT
Gripper

HDR
Gripper

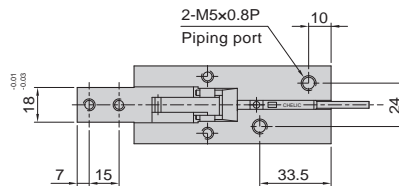
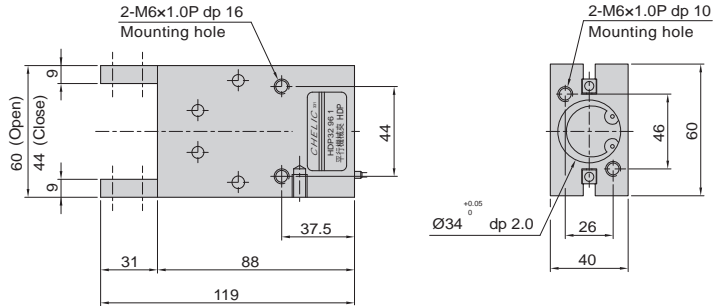
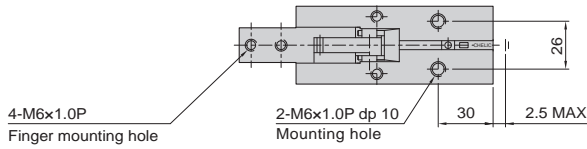


HDP series - Parallel gripper

External dimension – Ø32 , Mounting bracket

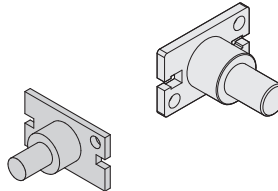
CHELIC PNEUMATIC

► HDP - 32



► Mounting bracket

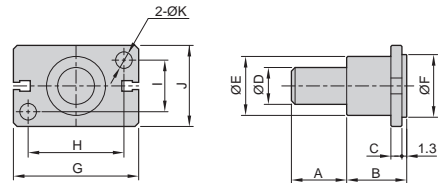
(Suitable for HDS \ HRS \ HDP series)



► HM type Mounting bracket

(Suitable for internal mounting)

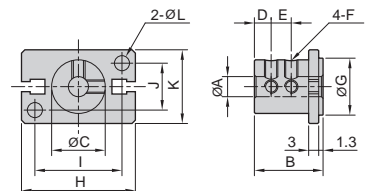
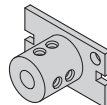
Symbol Model	A	B	C	D	E	F	G	H	I	J	K
HM10	10	10	2	8	12	13	27	20	10	16	3.5
HM16	15	15	3	10	16	17	34	26	14	22	4.5
HM20	15	15	3	10	18	21	45	35	16	26	5.5
HM25	25	17	5	14	26	26	52	40	20	32	6.6
HM32	25	20	6	16	30	34	60	46	26	40	6.6

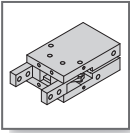


► HB type Mounting bracket

(Suitable for external mounting)

Symbol Model	A	B	C	D	E	F	G	H	I	J	K	L
HB10	4	15	10	5	-	M3 x 0.5p	11	23	17	10	16	3.5
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





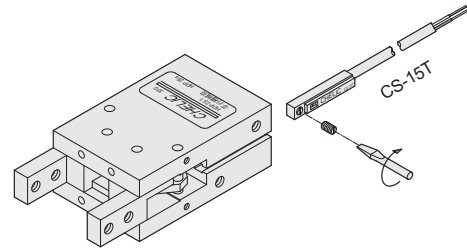
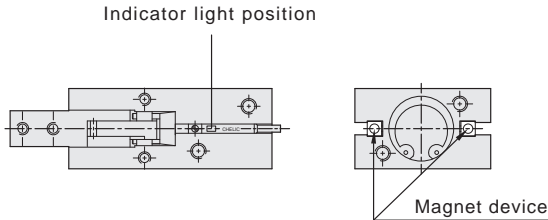
HDP series - Parallel gripper

How to use and Sensor switch installation

CHELIC PNEUMATIC

▶ HDP Sensor switch installation example

- Sensor switch installation and Position



CS-15T
(Please refer to P.6-2.18 sensor switch standard)

HDS
Angular
Gripper

HDH
180°Angular
Gripper

HDP
Parallel
Gripper

HDF
Parallel
Gripper

HDZ
Parallel
Gripper

HDZL
Parallel
Gripper

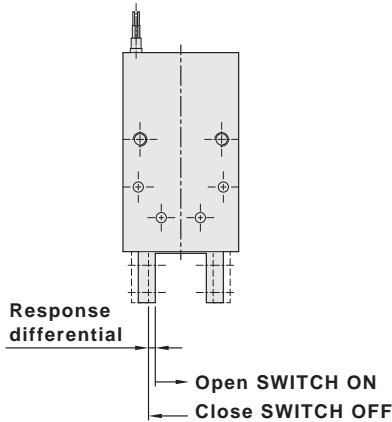
HDW
Parallel
Gripper

HDL
Gripper

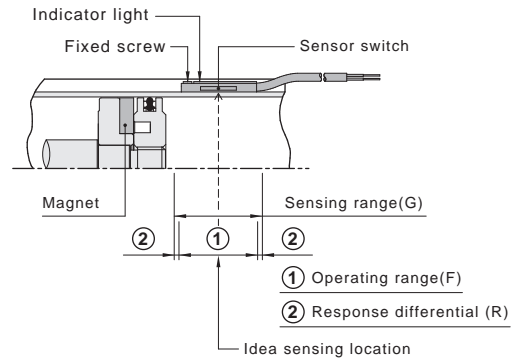
HDT
Gripper

HDR
Gripper

- Response differential and Position adjustable



- Response differential and Position adjustable



▶ 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.

▶ Operating range

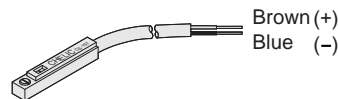
When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch. (Please refer to the below table)

Unit : mm

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

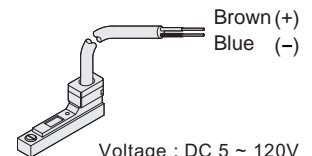
▶ Connection type

CS-15T



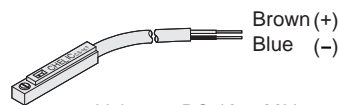
Voltage : DC 5 ~ 120V
AC 5 ~ 120V

CS-15B



Voltage : DC 5 ~ 120V
AC 5 ~ 120V

CS-5G



Voltage : DC 10 ~ 28V

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.