

HDL series Parallel Wide Type Air Gripper

Product features/ Code of order

CHELIC

Feature

- Parallel shift clamp
- Built-in magnet
- Multiple ways to install



Specification

Item	Bore size (mm)	Ø16	Ø20	Ø25	Ø32
Action		Double acting			
Fluid		Air			
Pressure range	kgf / cm ² (kPa)	2 ~ 7 (200 ~ 700)			
Ambient and fluid temperature	°C	5 ~ 60			
Theoretical holding force	N	37	58	102	171
Max. gripper point length (L)	mm	40	50	60	70
Closing stroke	mm	12	14	15	16
Port size	mm	M5X0.8P			
Sensing device		With magnet			

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

Code of order **HDL 20 - 9D 2**

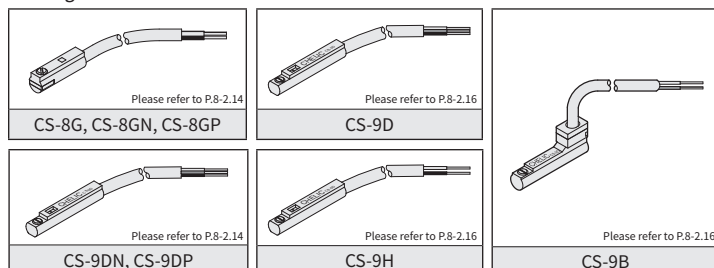
1 2 3

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

3	Mark	Sensor quantity
	1	With 1 sensor switche
	2	With 2 sensor switches

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



HDQ

HDQT

HDQM

HMQ

HMT

HDL

HDT

HDF

RM

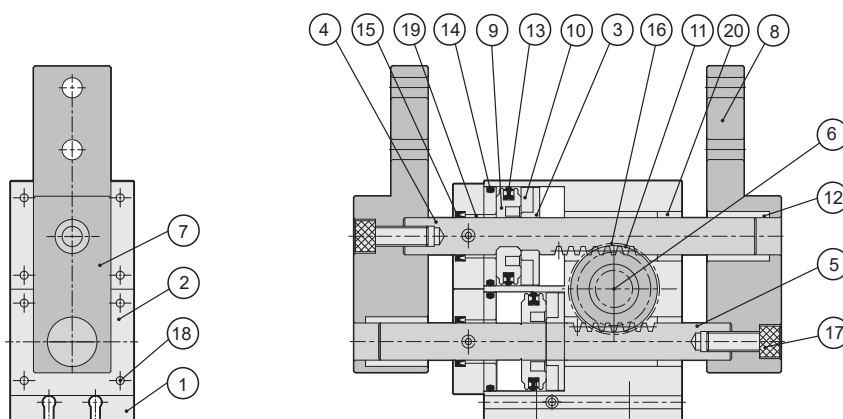
RB

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Internal structure



Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	11	Bearing	Bearing steel
02	Side cap	Aluminum alloy	12	Bush	Teflon
03	Magnetic cap	Aluminum alloy	13	Action lever pin	NBR
04	Piston rod	Carbon steel	14	Side cap O-ring	NBR
05	Piston rod	Carbon steel	15	Shaft packing	NBR
06	Gear shaft	Carbon steel	16	Clip	Spring steel
07	Right finger	Aluminum alloy	17	Finger screw	Alloy steel
08	Left finger	Aluminum alloy	18	Side cover screw	Alloy steel
09	Piston	Aluminum alloy	19	Side cap bush	Teflon
10	Magnetic	Rubber magnet	20	Body cap bush	Alloy steel

Packing and O-ring material list

Unit: mm

Item	Piston Packing	Shaft packing	Rear cover O-ring
Model \ Quantity	2	2	2
HDL Ø16	COP-16	EM-0811	Ø13 X Ø1.0
HDL Ø20	COP-20	DYR-10	Ø15.5 X Ø1.45
HDL Ø25	APA-25	EM-1014	Ø22 X Ø1.5
HDL Ø32	COP-32	DYR-12	Ø28.5 X Ø2.0

Product weight

Model	Weight (kg)
HDL Ø16	0.28
HDL Ø20	0.4
HDL Ø25	0.58
HDL Ø32	1.1

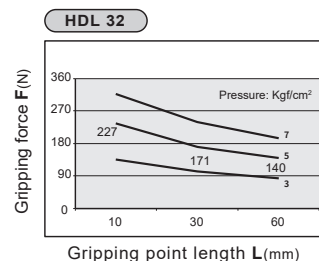
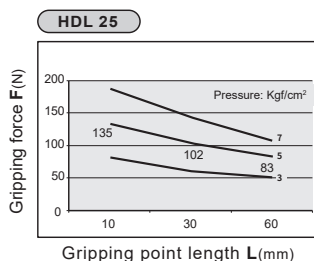
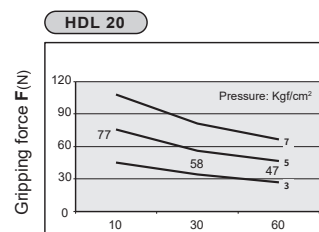
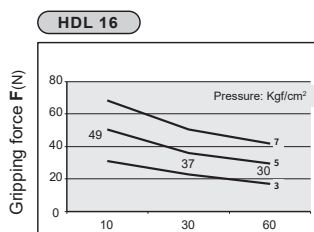
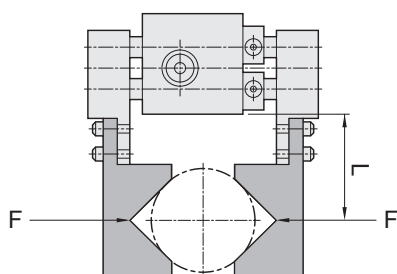
Note: All of above are theoretical data. Weight tolerance about $\pm 5\%$

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Characteristics graph, Operating type and data, Mounting type

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Gripping force characteristic



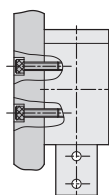
Operating type and data

Action	Model	Bore size (mm)	The smallest operating pressure (kgf/cm²)	Thread port (mm)	Effective gripping force (N)
Double acting	HDL 16	16	2.2	4-M4x0.7P	37
	HDL 20	20	2.2	4-Ø4.5	58
	HDL 25	25	2.2	4-M6x1.0P	102
	HDL 32	32	2.2	4-Ø6.5	171

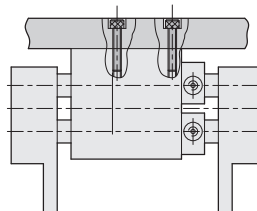
Note: The gripping force is the force of open and close gripper which in the length of gripping point is 30mm and acting pressure is 5 kgf/cm².

Mounting type

1.Side mounting



2.Top side mounting

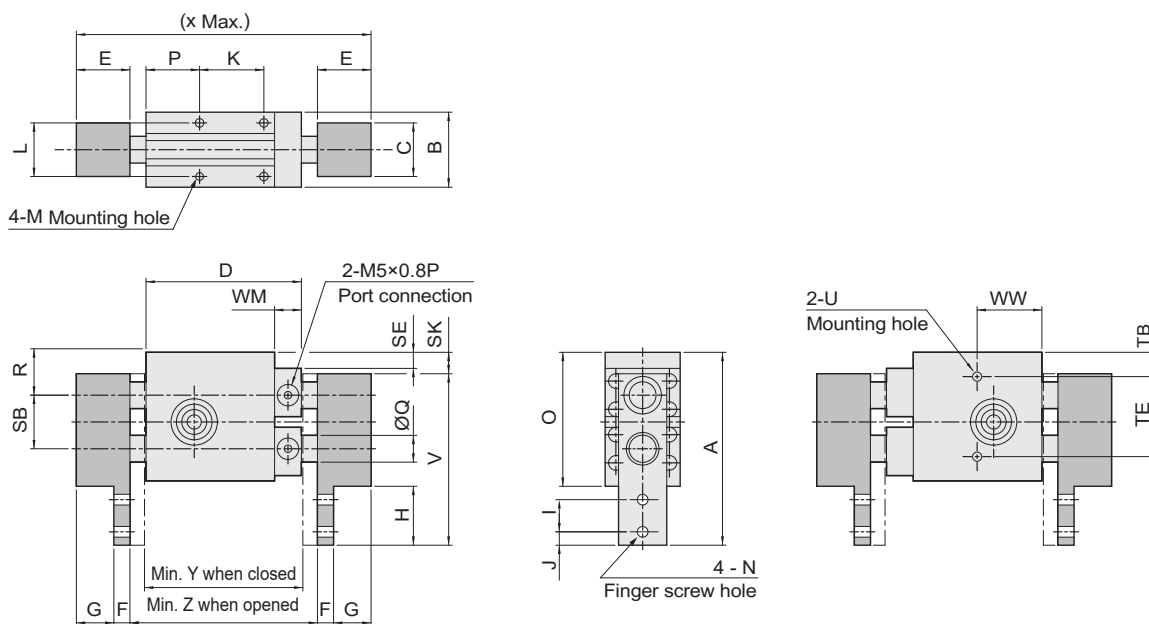


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Dimensions, Mounting type and operation of sensor switch

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Dimensions



Unit: mm

Model	Mark	A	B	C	D	E	F	G	H	I	J	K	L	M
HDL 16		63.5	26	18	52	18	6	12	18	9	4	20	20	M3 x 0.5P dp 6
HDL 20		76	30	20	55	20	8	12	24	12	6	25	20	M4 x 0.7P dp 6
HDL 25		88	34	22	63	22	10	12	30	15	6	25	25	M4 x 0.7P dp 8
HDL 32		115	40	25	74	24	12	12	42	20	7	30	30	M5 x 0.8P dp 8

Unit: mm

Model	Mark	N	O	P	Q	R	SB	SE	SK	TB	TE	U	V	WM	WW	X	Y	Z
HDL 16		M4x0.7P	43	16	8	14	19	5.5	6.5	8	31	M3 x 0.5P	57	10	20	100	52	64
HDL 20		Ø4.5	50	15	10	16.5	22	5.5	8	9.5	36	M4 x 0.7P	68	10	19	109	55	69
HDL 25		M6x1.0P	60	19	10	19.5	26	6.75	7	12.5	40	M5 x 0.8P	81	13	26.5	122	63	78
HDL 32		Ø6.5	78	17	12	26	34	9	16	13	60	M6 x 1.0P	99	10	32	138	74	90

Position of mounting sensor switch

Sensor switch mounting type

