

## Air chucks

### CTV

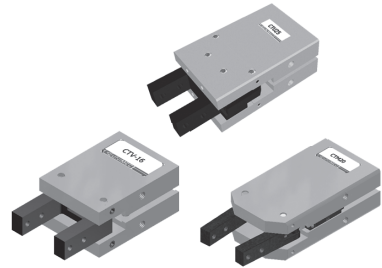
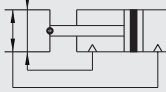
Air Chucks - Fulcrum Type

### CTU

Air Chucks - Parallel Type

### CTM

180° Angular Type







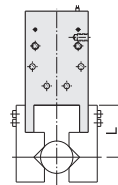
- CT series with magnetic piston is standard accessory.
- There are 5 different with light weight and compact body design, type of air chucks.
- The air chucks mounting housing from three direction.
- Sensor mounted in the groove of the air chucks body.
- Compact body has high holding force.

## Specification

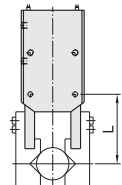
Type		CTV					CTU					CTM			
Bore sizes		φ 10	φ 16	φ 20	φ 25	φ 32	φ 10	φ 16	φ 20	φ 25	φ 32	φ 16	φ 20	φ 25	φ 32
Holding moment M(N.cm)	Open	27×P	118×P	230×P	430×P	828×P	-	-	-	-	-	145×P	220×P	315×P	819×P
	Close	17×P	88×P	170×P	333×P	620×P	-	-	-	-	-	124×P	185×P	264×P	703×P
Holding force P=0.5Pa F(N)	Open	-	-	-	-	-	4.6	19	35	66	110	-	-	-	-
	Close	-	-	-	-	-	7.2	25	46	86	150	-	-	-	-
Holding force F(N) L: (mm)		F=M/L×8.5(N)					~					F=M/L×9.0(N)			
Max. clamp length (mm)		30	40	60	70	85	30	40	60	70	85	80	100	120	140
Opening stroke (mm)		-					4	8	12	14	16	-			
Angle (°)		-10° ~ +30°					-					-3° ± 1.5° ~ +93° ± 1.5°			
Type of operation		Double acting													
Power fluid		Filtered air with or without lubrication													
The range of pressure (MPa)		0.3~0.7													
The range of temperature (°C)		0~+60													

## How to order

<b>CTV</b>	<b>25</b>	<b>LN15T</b>	<b>×</b>	<b>2</b>
Type	Bore	Sensor switch		Quantity
	10—φ 10mm 16—φ 16mm 20—φ 20mm 25—φ 25mm 32—φ 32mm			1: 1pc 2: 2pcs
		Voltage range: DC5-120V, AC5-120V Current range: 3-50mA		
		Note: 1.Can choose NPN or PNP type (3-Wire type, 24VDC). 2.Can choose plug-in cable.		



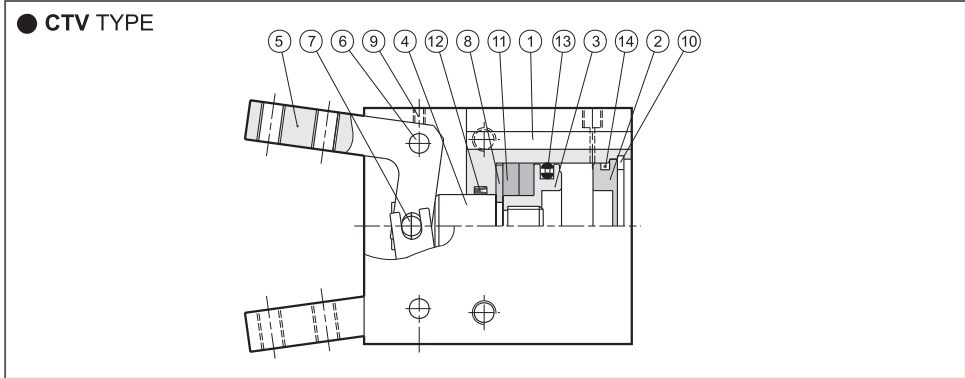
CTU



CTM / M

## How to order the seal kit

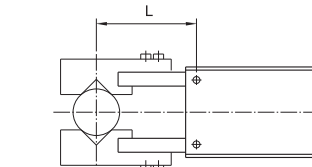
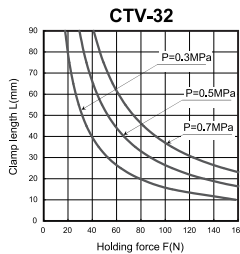
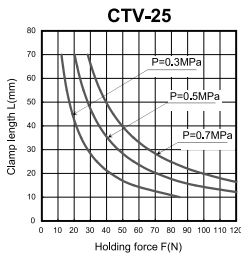
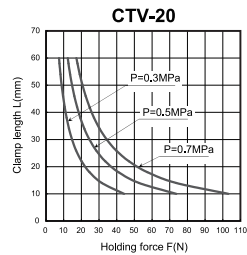
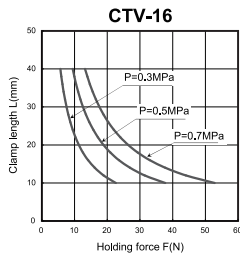
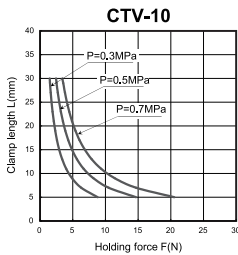
CTVSK <input type="text"/>	Bore	Seal kit
	10	CTVSK10 - Including No.12,13,14
	16	CTVSK16 - Including No.12,13,14
	20	CTVSK20 - Including No.12,13,14
	25	CTVSK25 - Including No.12,13,14
	32	CTVSK32 - Including No.12,13,14



## Parts List

No.	Part name	Quantity	No.	Part name	Quantity	No.	Part name	Quantity
1	Body	1	7	Rod pin	1	13	Piston packing	1
2	End cover	1	8	Magnet holder	1	14	Cover gasket	1
3	Piston	1	9	Set screw	2			
4	Piston rod	1	10	Snap ring	1			
5	Y Type finger	2	11	Magnet	1			
6	Slide pin	2	12	Rod packing	1			

## Holding force table



: Closed

DA

DP

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DQ

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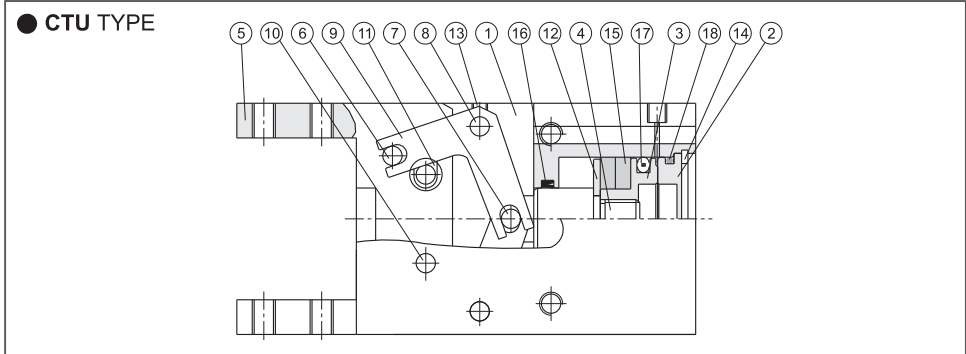
RT

CT

CH

## How to order the seal kit

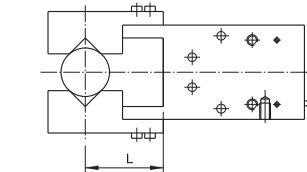
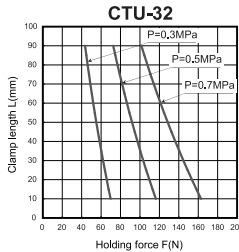
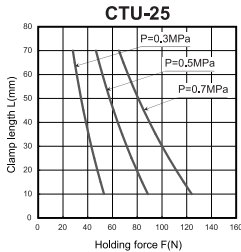
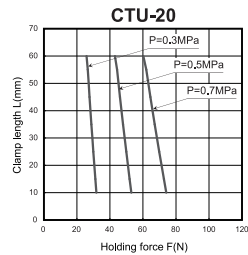
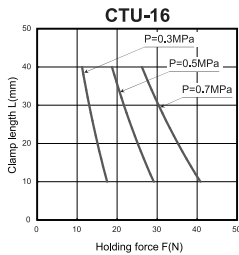
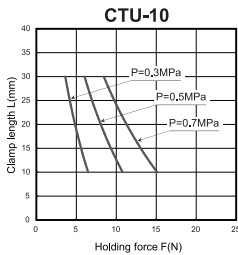
Bore	Seal kit
10	CTUSK10 - Including No.16,17,18
16	CTUSK16 - Including No.16,17,18
20	CTUSK20 - Including No.16,17,18
25	CTUSK25 - Including No.16,17,18
32	CTUSK32 - Including No.16,17,18



## Parts List

No.	Part name	Quantity	No.	Part name	Quantity	No.	Part name	Quantity
1	Body	1	7	Rod pin	1	13	Set screw	2
2	End cover	1	8	Support pin	2	14	Snap ring	1
3	Piston	1	9	Action lever	2	15	Magnet	1
4	Piston rod	1	10	Slide guide pin	2	16	Rod packing	1
5	Slide lever	2	11	Bearing	4	17	Piston packing	1
6	Slide pin	2	12	Magnet holder	1	18	Cover gasket	1

## Holding force table

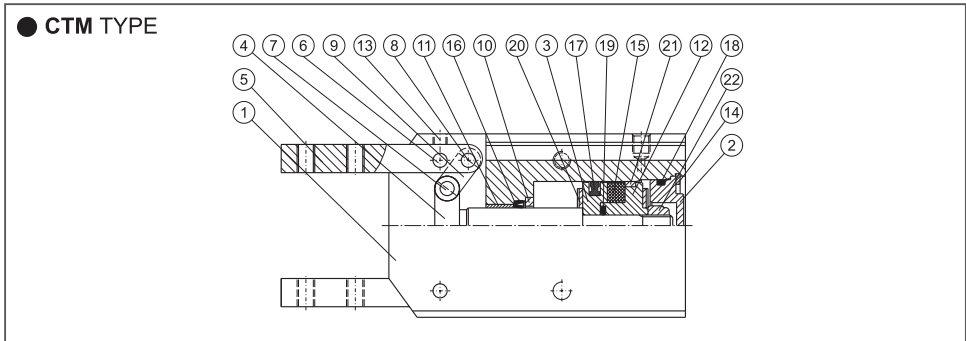


— : Closed

## How to order the seal kit

CTMSK

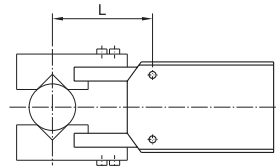
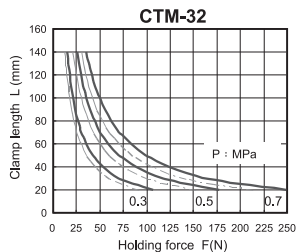
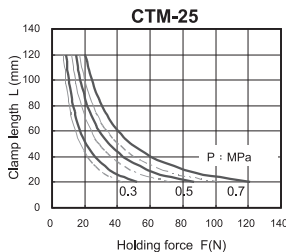
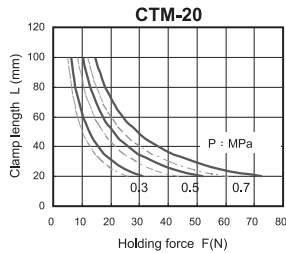
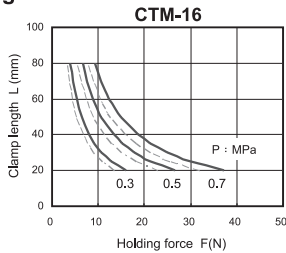
Bore	Seal kit
16	CTMSK16 - Including No.16,17,18
20	CTMSK20 - Including No.16,17,18
25	CTMSK25 - Including No.16,17,18
32	CTMSK32 - Including No.16,17,18



## Parts List

No.	Part name	Quantity	No.	Part name	Quantity	No.	Part name	Quantity
1	Body	1	9	Action lever	2	17	Piston packing	1
2	End cover	1	10	Bush	1	18	Cover gasket	1
3	Piston	1	11	Oilless Bearing	1	19	Piston gasket	1
4	Piston rod	1	12	Magnet holder	1	20	Rubber lining	2
5	Slide lever	2	13	Set screw	4	21	Wearing ring	1
6	Slide pin	2	14	Snap ring	1	22		1
7	Rod pin	2	15	Magnet	1	23		
8	Support pin	2	16	Rod packing	1	24		

## Holding force table



— : Opened  
- - - : Closed

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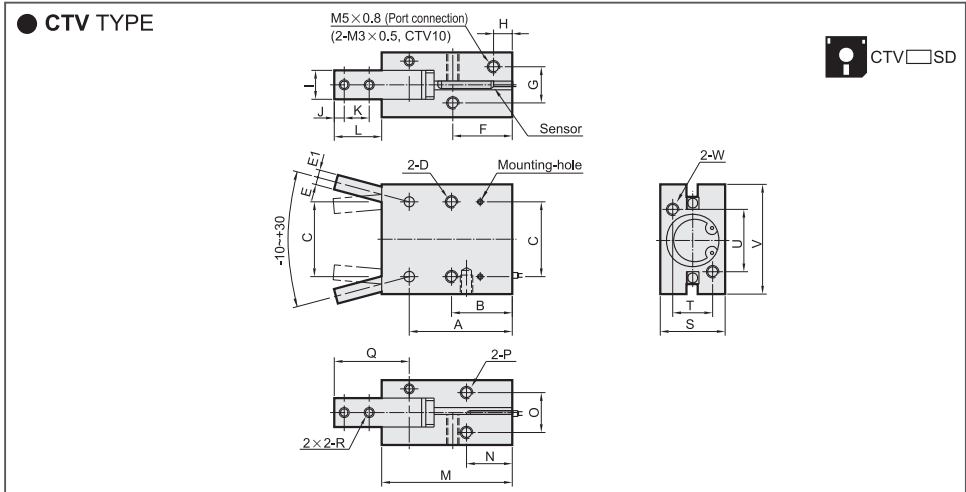
GT

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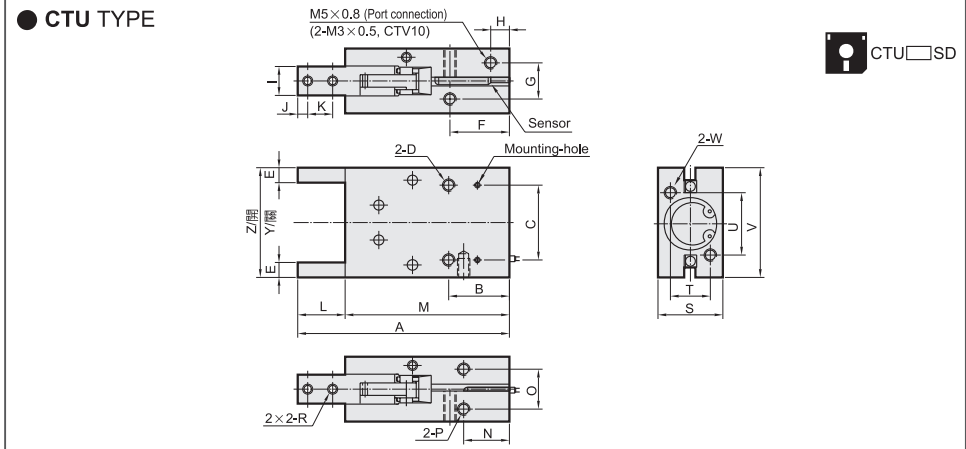
CH

## Dimensional features



**Dimensional Table**

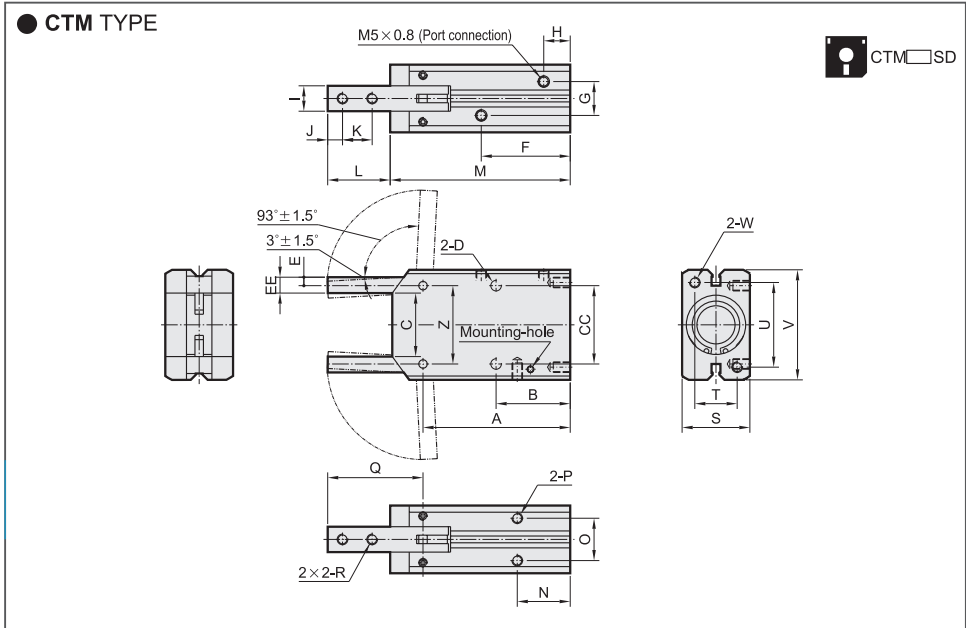
Type	A	B	C	D	E	E1	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
CTV10	30	20	18	M3×0.5, dp5	1.5	2.5	18.5	9	5.5	7	3	6	14.5	36	16	10	M3×0.5, dp5	20.5	M3×0.5	16	10	17	23	M3×0.5, dp5
CTV16	38	25.5	24	M4×0.7, dp7	3	3	25.5	12	7.5	9	3	8	17.5	45.5	21	14	M4×0.7, dp7	25	M3×0.5	22	14	26	34	M4×0.7, dp7
CTV20	42.5	28	30	M5×0.8, dp8	3.5	3.5	28.0	13	8	12	4	10	22	53	22	16	M5×0.8, dp8	32.5	M4×0.7	26	16	35	45	M5×0.8, dp8
CTV25	48.5	31.5	36	M6×1.0, dp10	4	5	31.0	18	9	14	5	12	26	61	24.5	20	M6×1.0, dp10	38.5	M5×0.8	32	20	40	52	M6×1.0, dp10
CTV32	54	37.5	44	M6×1.0, dp10	5	5	33.5	24	10	18	6	14	30	68	30	26	M6×1.0, dp10	44	M6×1.0	40	26	46	60	M6×1.0, dp10



**Dimensional Table**

Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	V	W	Y	Z
CTU10	58	20	18	M3×0.5, dp7	4	19	10	7.5	7	3	6	13	45	15.5	10	M3×0.5, dp5	M3×0.5	16	10	17	23	M3×0.5, dp5	18	22
CTU16	73.5	25.5	24	M4×0.7, dp7	5	25.5	12	7.5	11	3	8	15	58.5	21	14	M4×0.7, dp7	M3×0.5	22	14	26	34	M4×0.7, dp7	25	33
CTU20	88.5	28	30	M5×0.8, dp8	6	28.0	13	8	12	4	10	19	69.5	22	16	M5×0.8, dp8	M4×0.7	26	16	35	45	M5×0.8, dp8	32	44
CTU25	103.5	31.5	36	M6×1.0, dp10	8	31.0	18	9	14	5	12	24	79.5	24.5	20	M6×1.0, dp10	M5×0.8	32	20	40	52	M6×1.0, dp10	37	51
CTU32	119	37.5	44	M6×1.0, dp10	9	33.5	24	10	18	7	15	31	88	30	26	M6×1.0, dp10	M6×1.0	40	26	46	60	M6×1.0, dp10	44	60

## Dimensional features

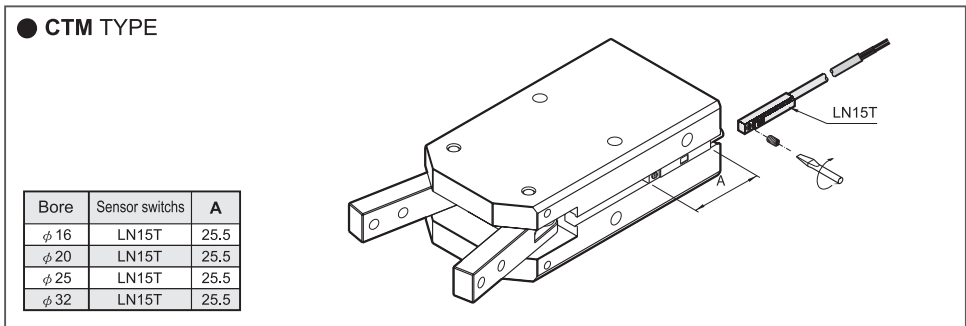


## Dimensional Table

Type	A	B	C	CC	D	E	EE	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
CTM16	59	30	19	24	M4 × 0.7, dp6	3	5.5	37	12	10.5	8	4	8	18.5	69	25	14	M4 × 0.7, dp6	28.5	M3 × 0.5	22	14
CTM20	69.5	35	24	30	M5 × 0.8, dp8	4	7	41	13	13.5	10	4	10	22	81	28	16	M5 × 0.8, dp8	33.5	M4 × 0.7	26	16
CTM25	69.5	35	30	37	M5 × 0.8, dp8	4.5	8	42	16	12.5	12	7	14	29.5	85	25	20	M5 × 0.8, dp8	45	M5 × 0.8	32	20
CTM32	79	40	36	46	M6 × 1.0, dp10	5	10	49.5	24	14	14	9	16	37	97.5	35	26	M6 × 1.0, dp10	55.5	M6 × 1.0	40	26

Type	U	V	W	Z
CTM16	26	34	M4 × 0.7, dp6	24
CTM20	35	45	M5 × 0.8, dp8	30
CTM25	40	52	M5 × 0.8, dp8	37
CTM32	46	60	M6 × 1.0, dp10	46

## Installation of sensor



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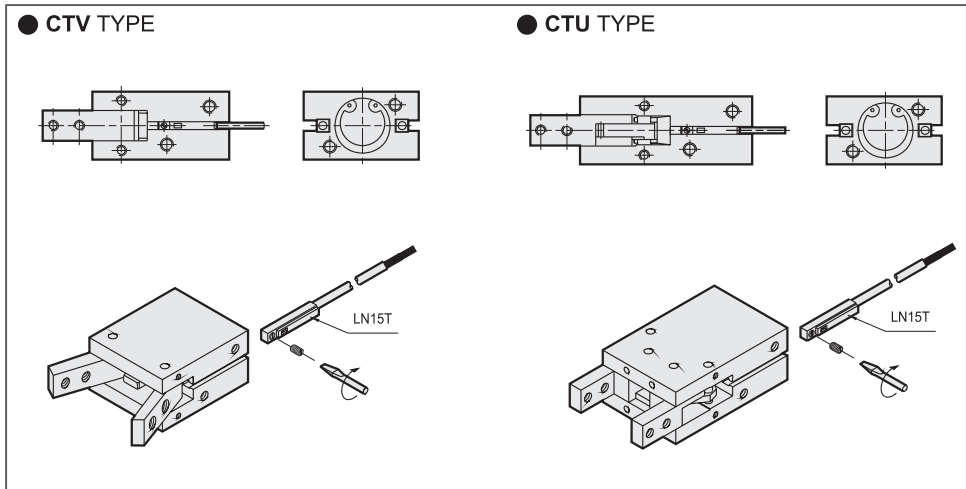
GT

RT

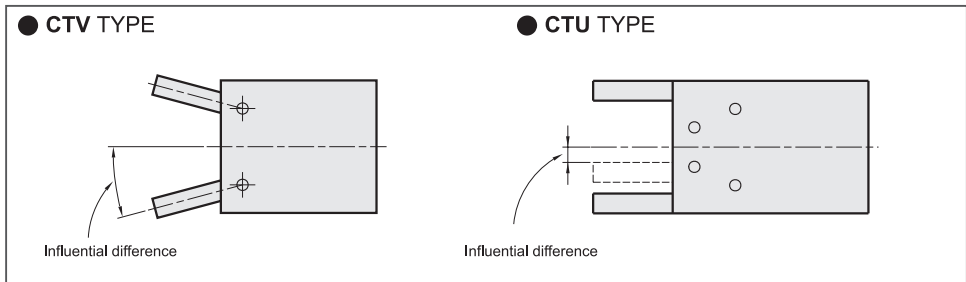
CT

CH

## Installation of sensor



## Influential difference and acting accuracy of sensor switch



Type	Influential difference	Acting accuracy
<b>CTV 10</b>	1.5°	0.6°
<b>CTV 16</b>	1.5°	0.6°
<b>CTV 20</b>	1.5°	0.6°
<b>CTV 25</b>	1.0°	0.5°
<b>CTV 32</b>	1.0°	0.5°

Unit: mm

Type	Influential difference	Acting accuracy
<b>CTU 10</b>	0.6°	0.2°
<b>CTU 16</b>	0.6°	0.2°
<b>CTU 20</b>	0.6°	0.2°
<b>CTU 25</b>	0.6°	0.2°
<b>CTU 32</b>	0.6°	0.2°

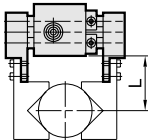
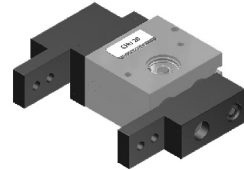
## Chuck Weight

Unit: kg

Bore	CTV	CTU	Sensor switchs LN15T
φ 10	0.10	0.12	0.02
φ 16	0.12	0.16	0.02
φ 20	0.20	0.55	0.02
φ 25	0.33	0.75	0.02
φ 32	0.56	1.23	0.02

## Specification



Type	CHU 20	CHU 32
Bore sizes (mm)	φ 20	φ 32
Type of operation	Double acting	
Power fluid	Filtered air	
Pressure range (MPa)	0.2~0.7	
Proof pressure (MPa)	1.03	
Temperature (°C)	5~60	
Max. clamp length (mm)	50	70
Holding force (L=30mm, P=0.5MPa) (N)	30	105
Opening stroke (mm)	14	16



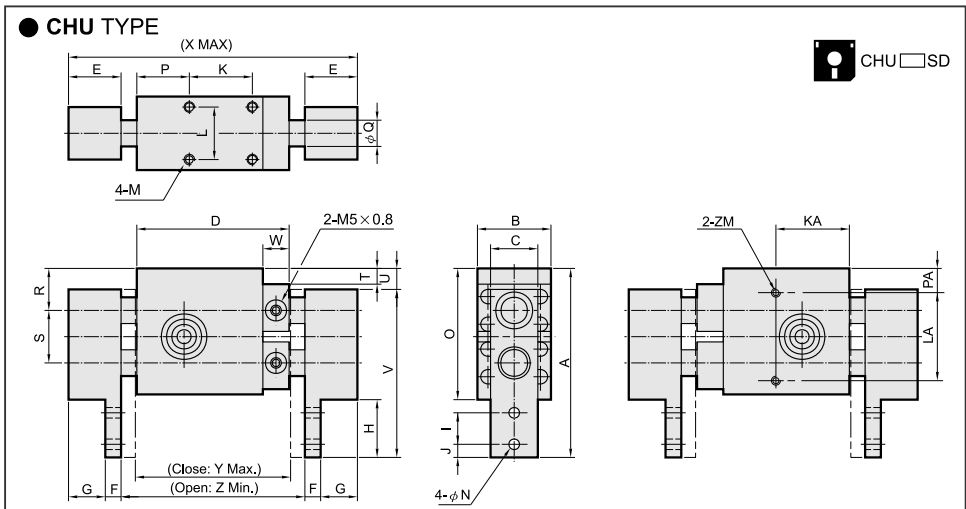
Note:

- 1.Can choose NPN or PNP type (3-Wire type, 24VDC).
- 2.Can choose plug-in cable.
- 3.For details see page 4-1.5.

## How to order

<b>CHU</b>	<b>32</b>	<b>LN09D</b>	<b>×</b>	<b>2</b>
Type	Bore	Sensor switch		Quantity
	20— φ 20mm 32— φ 32mm			1: 1pc 2: 2pcs

## Dimensional features



## Dimensional Table

Type	A	B	C	D	E	F	G	H	I	J	K	KA	L	LA	M
CHU20	76	30	20	55	20	8	12	24	12	6	25	19	20	36	M4×0.7, dp6
CHU32	115	40	25	74	24	12	12	42	20	7	30	32	30	60	M5×0.8, dp8

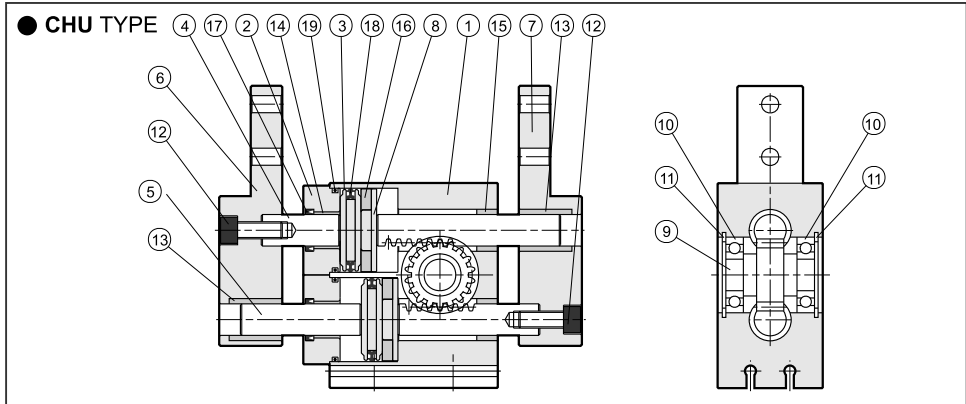
Type	φ N	O	P	PA	φ Q	R	S	T	U	V	W	X	Y	Z	ZM
CHU20	4.5	50	15	9.5	10	16.5	22	5.5	8	68	10	109	55	69	M4×0.7
CHU32	6.5	78	17	13	12	26	34	9	16	99	10	138	74	90	M6×1.0



## How to order the seal kit

CHUSK

Bore	Seal kit
20	CHUSK20 - Including No.17,18,19
32	CHUSK32 - Including No.17,18,19





## Parts List

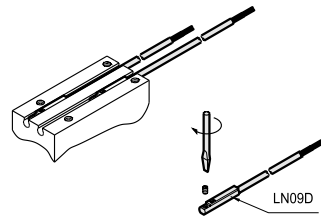
No.	Part name	Quantity	No.	Part name	Quantity	No.	Part name	Quantity
1	Body	1	8	Magnet holder	2	15	Oiless bearing	2
2	End cover	2	9	Pinion shaft	1	16	Magnet	2
3	Piston	2	10	Bearing	2	17	Rod packing	2
4	Piston rod	1	11	Snap ring	2	18	Piston packing	2
5	Piston rod	1	12	Hexagon socket head screw	2	19	Cover gasket	2
6	Slide (left)	1	13	Slide bush	2	20		
7	Slide (right)	1	14	Slide bush	2			

## Chuck Weight

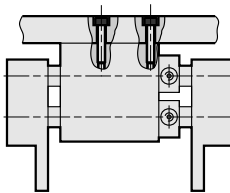
Unit: kg

Bore		Sensor switch LN09D 
φ 20	0.4	0.01
φ 32	1.1	0.01

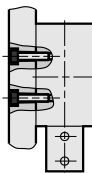
## Installation of sensor switches



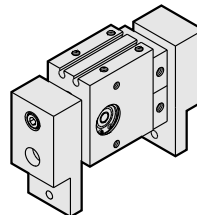
## Mounting type



Top mounting



Side mounting



DA

DP

DS

DQ

DB

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RT

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CH