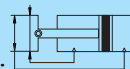

**DOUBLE ACTING
WITH SENSOR SWITCH.....**

DKHT



Features

- All series with magnetic piston is standard accessory.
- For large work pieces of the clamping.
- Toggle mechanism design, it also can holding work piece when pressure out of control.
- Sensor is attachable.

Specification

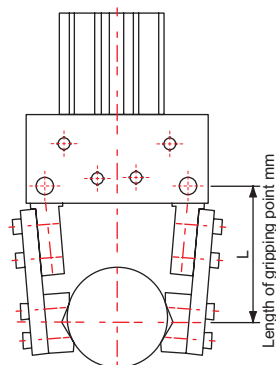
Type	DKHT			
Bore	Φ32、40、50、63			
Power fluid	Filtered air with or without lubrication			
The range of pressure	1 ~ 6.1 kgf/cm ²			
The range of temperature	+5 ~ +60 °C (No freezing)			
Gripper open angle	Φ32 : -3° ~ 28°	Φ40 : -3° ~ 27°	Φ50 : -2° ~ 23°	Φ63 : -2° ~ 23°
Clamping force N · m(kgf · cm)	Φ32 : 12.4(126)	Φ40 : 36(367)	Φ50 : 63(642)	Φ63 : 106(1081)
Weight (kg)	Φ32 : 0.8	Φ40 : 1.09	Φ50 : 1.93	Φ63 : 2.8

How to order

DKHT	32	-	DTH-F9B	1
Type	Bore		Sensor switch	Quantity
 DKHT	32 : Φ32 40 : Φ40 50 : Φ50 63 : Φ63		DTH-F9B Two wire type No reed switch	1 : 1pc 2 : 2pcs
			DTH-F9BV Two wire type No reed switch	
			DTH-F9N Three wire type NPN Current sinking	
			DTH-F9NV Three wire type NPN Current sinking	
			DTH-F9P Three wire type PNP Current sourcing	
			DTH-F9PV Three wire type PNP Current sourcing	

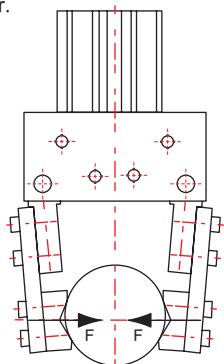
Clamping force

- Clamping point of work piece use in range of clamping force diagrams.



- Expression of clamping point

Clamping force in right diagram is curve expressed, two grippers and accessories all contact work piece and we using F to represent trust of one gripper.



Caution

Specific product precautions

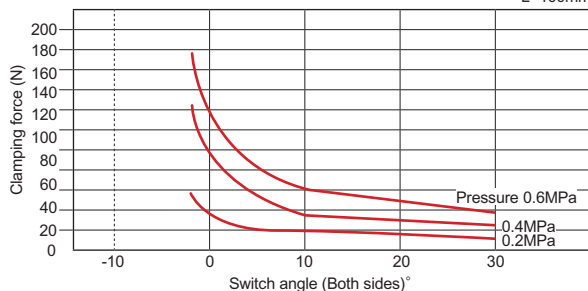
Before servicing this unit read this entire product information sheet.

1. Please confirm and adjust clamping status when gripper and work piece do not fall to conduct.
2. When gripper holding, please confirm transport acceleration cause work piece deviate for regular.
3. If work piece is not clamping stable, it will be danger to make work piece deviate and fall down.

Check clamping force

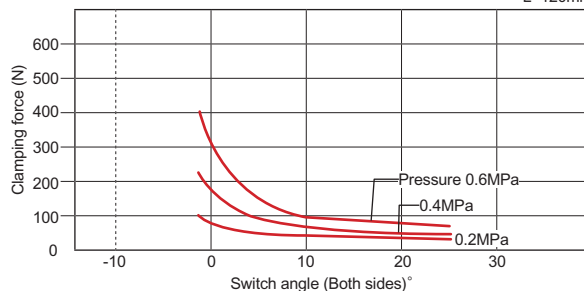
DKHT32

L=100mm



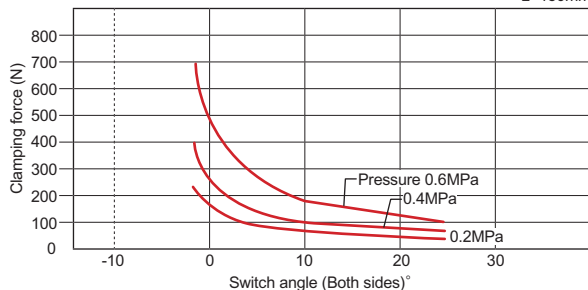
DKHT40

L=120mm



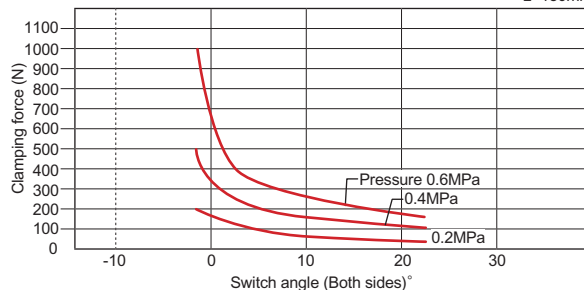
DKHT50

L=150mm



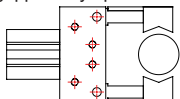
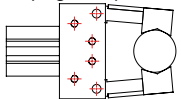
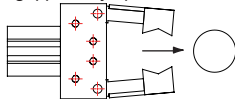












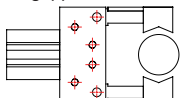
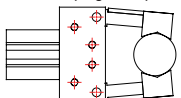
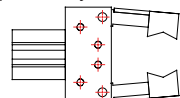
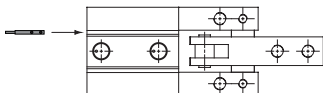
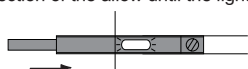

DKHT63

L=180mm



Sensor switch mounting and setting sensing position

1. Test when clamping diameter of work piece


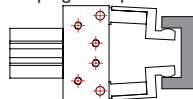
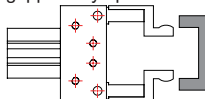
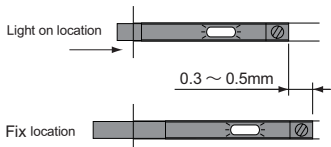

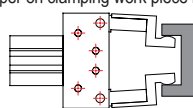
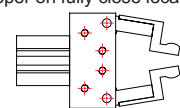
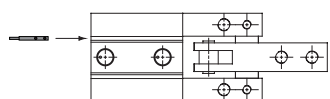
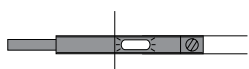
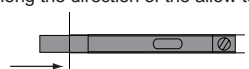
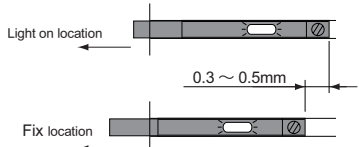
Example		1. Want to check gripper back	2. Want to check work piece when clamping	3. Want to check work piece when not clamping
Sensing location		When gripper fully open 	When clamping work piece 	When gripper fully open 
Sensor switch action		Sensor switch ON when gripper back (Light on)	Sensor switch ON when clamping work piece (Light on)	When clamping work piece (Normal) Sensor switch OFF (Light off) When not clamping work piece (Abnormal) Sensor switch ON (Light on)
Test combination	Set one sensor switch			
				
	Need two sensor switch			
				
Set sensor switch fix location sequence 「No pressure or low pressure will power on the sensor switch and follow the sequence to set.」		Step 1 Fully open gripper. 	Step 1 Set gripper on clamping work piece location. 	Step 1 Set gripper on fully close location. 
		Step 2 Let sensor switch mounting in sensor groove (see right diagram) 		
		Step 3 Let sensor switch move along the direction of the allow until the light on.	Step 3 Let sensor switch move along the direction of the arrow from the light on location about 0.3 ~ 0.5mm.	
		Step 4 Let sensor switch move along the direction of the allow to check light off.		
		Step 5 Let sensor switch move along opposite direction of the allow from light on location 0.3~0.5mm. 		

※ Suggested clamping work piece near the gripper stroke center.

※ When clamping work piece near the gripper switch stroke, differential induction of sensor switch will be limited on the test combination table.

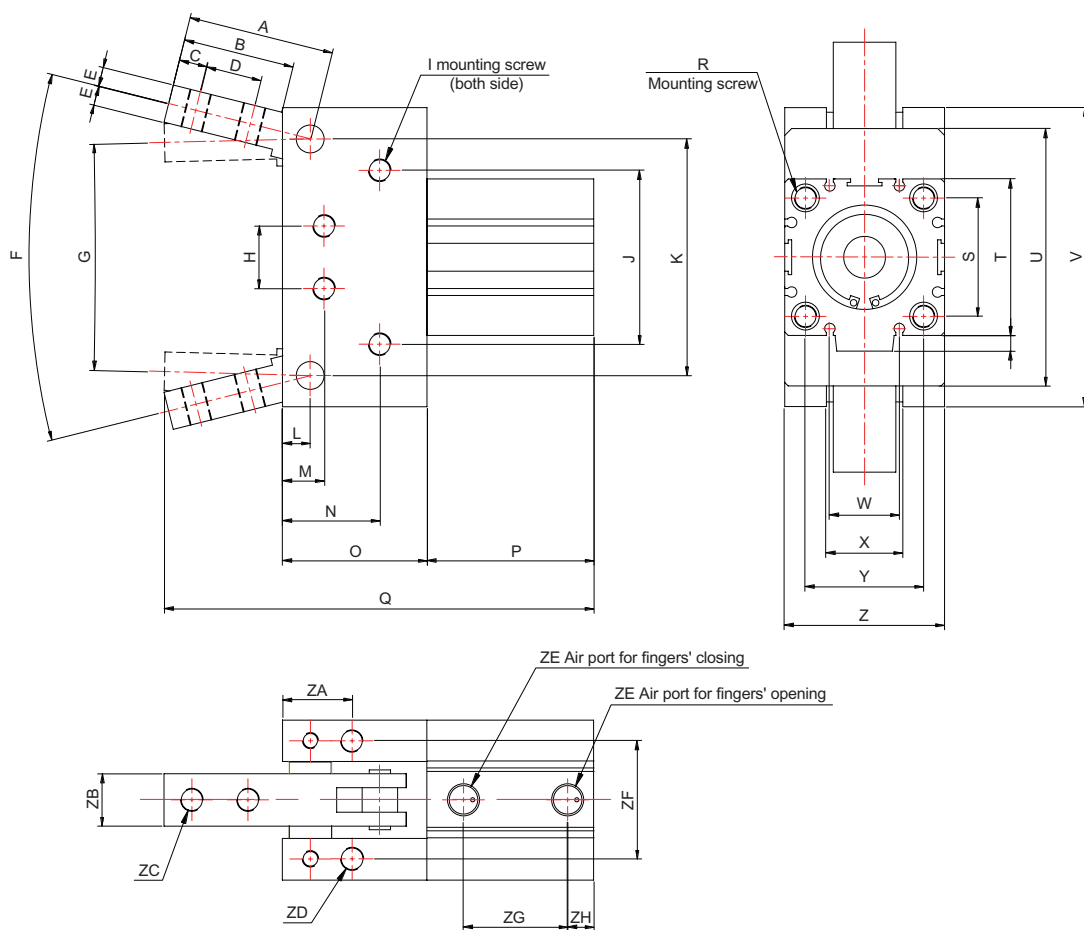
Sensor switch mounting and setting sensing position

2. When clamping diameter

Example		1. Want to check gripper back	2. Want to check work piece when clamping	3. Want to check work piece when not clamping
Sensing location		When gripper fully open 	When clamping work piece 	When gripper fully open 
Sensor switch action		Sensor switch ON when gripper back (Light on)	Sensor switch ON when clamping work piece (Light on)	When clamping work piece (Normal) Sensor switch OFF (Light off) When not clamping work piece (Abnormal) Sensor switch ON (Light on)
Test combination	Set one sensor switch	●	●	●
	Need two sensor switch	●	●	●
		●	●	●
		●	●	●
Set sensor switch fix location sequence 「No pressure or low pressure will power on the sensor switch and follow the sequence to set.」 		Step 1 Fully open gripper. 	Step 1 Set gripper on clamping work piece location. 	Step 1 Set gripper on fully close location. 
		Step 2 Let sensor switch mounting in sensor groove (see right diagram) 		
		Step 3 Let sensor switch move along the direction of the allow until the light on.	Step 3 Let sensor switch move along the direction of the arrow from the light on location about 0.3 ~ 0.5mm. 	
		Step 4 Let sensor switch move along the direction of the allow to check light off. 		
		Step 5 Let sensor switch move along opposite direction of the allow from light on location 0.3~0.5mm. 		

※ Suggested clamping work piece near the gripper stroke center.

※ When clamping work piece near the gripper switch stroke, differential induction of sensor switch will be limited on the test combination table.

DKHT Dimensional features

Dimension table

Mark Bore	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Φ32	42	32	8	16	5.5	open 28°	open -3°	18	4-M6x1 deep 10	50	68	8	12	28	41.6	48	(123.6)	4-M6x1 deep 10	34±0.2
Φ40	48	37	10	18	7	open 27°	open -2.5°	24	4-M8x1.25 deep 12	60	74	8	12	28	42	54.5	(136.5)	4-M6x1 deep 10	40±0.2
Φ50	54	40	10	22	8	open 26°	open -2°	30	4-M10x1.5 deep 12	80	100	10	16	35	52.5	60.5	(157)	4-M8x1.25 deep 14	50±0.2
Φ63	60	45	11	24	10	open 32°	open -2°	36	4-M12x1.75 deep 17	90	104	10	17	35	53.2	66	(169.2)	4-M12x1.75 deep 17	60±0.2

Mark Bore	T	T1	U	V	W	X	Y	Z	ZA	ZB	ZC	ZD	ZE	ZF	ZH	ZG
Φ32	□45	4.5	74	86	20	22	34±0.2	46	20	15 ⁰ _{-0.1}	4-M6x1	4-M6x1 deep 15	Rc(PT)1/8	34	7.5	30
Φ40	□52	5	—	96	22	29	40±0.2	53	20	18 ⁰ _{-0.1}	4-M8x1.25	4-M8x1.25 deep 12	Rc(PT)1/8	40	8	35.5
Φ50	□64	7	110	124	27	36	50±0.2	66	25	20 ⁰ _{-0.1}	4-M10x1.5	4-M10x1.5 deep 12	Rc(PT)1/4	52	10.5	39.5
Φ63	□77	7	116	132	30	40	60±0.2	80	25	24 ⁰ _{-0.1}	4-M12x1.75	4-M12x1.75 deep 10	Rc(PT)1/4	60	10.5	40.5