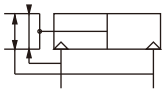
Parallel style with guide track——ball bearing

Product feature

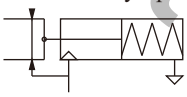
1. Integrated design of linear guide roller, high rigidity and high precision.
2. A positioning pin is attached to the bottom of the linear guide rail, which can prevent the deviation of the positioning rail and body.
3. With squareness magnetic switch slots and roundness magnetic switch slots.
4. The positioning hole can improve the precision and the consistency of repeated dismounting and positioning.
5. According to the actual using requirements of customers, the initial position of clamping jaw can be customized to meet the different needs under different working conditions.
6. Can be mounted from three directions.

Symbol

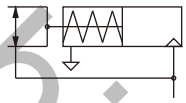
HFZ: Double acting



HFTZ: Single acting and normally opened



HFSZ: Single acting and normally closed



Specification

Bore size (mm)			6	10	16	20	25	32	40
Acting type			Double acting Single acting						
Fluid			Air(to be filtered by 40μm filter element)						
Operating pressure	Double acting	Φ6, Φ10	0.2~0.7MPa(28~100psi)(2.0~7.0bar)						
		Others	0.15~0.7MPa(22~100psi)(1.5~7.0bar)						
	Single acting	Φ6, Φ10	0.35~0.7MPa(50~100psi)(3.5~7.0bar)						
		Others	0.25~0.7MPa(36~100psi)(2.5~7.0bar)						
Temperature			-20~70						
Lubrication			Not required						
Repeatability mm			±0.01					±0.02	
Max. frequency			180(c.p.m)					60(c.p.m)	
Port size			M3×0.5		M5×0.8				

Gripping force and stroke

Acting type		Double acting(HFZ)							Single acting_NO (HFTZ)							Single acting_NC (HFSZ)						
Bore size		6	10	16	20	25	32	40	6	10	16	20	25	32	40	6	10	16	20	25	32	40
Gripping force per finger Effective value(N)	External	3.3	11	34	45	69	160	255	1.9	7	27	35	55	133	220	-	-	-	-	-	-	-
	Internal	6.1	17	45	68	102	195	320	-	-	-	-	-	-	-	3.7	13	38	59	87	163	270
Opening/Closing stroke(Both sides)(mm)		3	4	6	10	14	22	30	3	4	6	10	14	22	30	3	4	6	10	14	22	30
Weight (g)	F Type	24	-	-	-	-	-	-	25	-	-	-	-	-	-	25	-	-	-	-	-	-
	Others	25	56	124	236	428	729	1268	26	57	125	238	430	778	136	26	57	125	238	430	778	1365

[Note] The gripping force in the above table is in the working pressure of 0.5MPa, and with a gripping point of L=20mm.

Parallel style with guide track——ball bearing

Ordering code

HFZ - 20 □

① ② ③

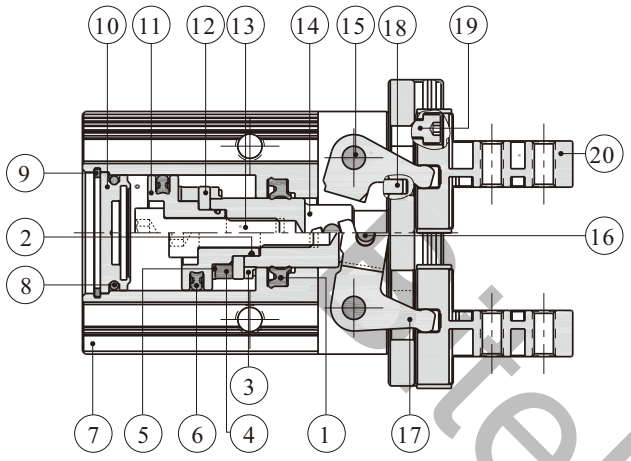
① Model
HFZ: Air finger(Double acting)
HFSZ: Air finger(Single acting and nrmally closed)
HFTZ: Air finger(Single acting and normally opened)

③ Finger Style	
Finger style	Bore size
Blank: Standard	6 10 16 20 25 32 40
B: Side mounting type	6
N: Thru.hole mounting type	
F: Bottom mounting type	

② Bore size
6 10 16 20 25 32 40

Note) HFZ series are all attached with magnet.

Inner structure and material of major parts

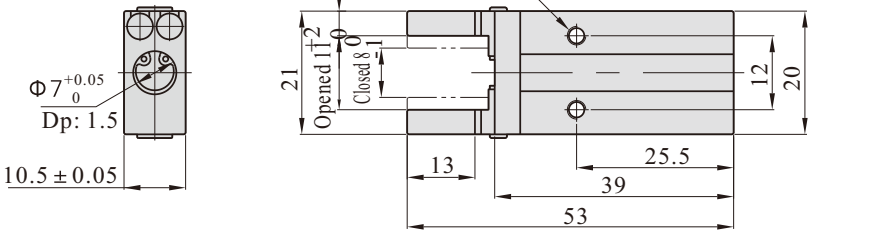


NO.	Item	Material
1	Rod packing	NBR
2	O-ring	NBR
3	Bumper	TPU
4	Magnet	Sintered metal (Neodymium-iron-boron)
5	Magnet washer	NBR
6	Piston seal	NBR
7	Body	Aluminum alloy
8	O-ring	NBR
9	C clip	Spring steel
10	Back cover	Aluminum alloy
11	Piston	Aluminum alloy/Stainless steel
12	Magnet fixed flake	Stainless steel
13	Screw	Carbon steel
14	Piston rod	Aluminum alloy/Stainless steel
15	Pin	Stainless steel
16	Pin	Stainless steel
17	Curved bar	Stainless steel
18	Pin	Stainless steel
19	Countersink screw	Carbon steel
20	Assembly of clamping jaw and guide rail	Stainless steel

Dimensions

Standard type

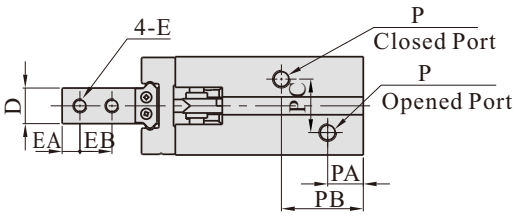
Φ6

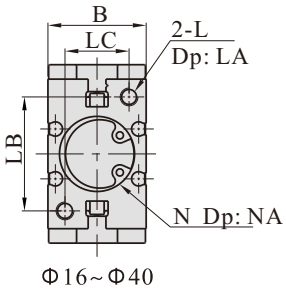


Dimensions

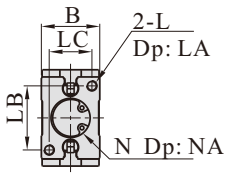
Standard type

Φ10~Φ40

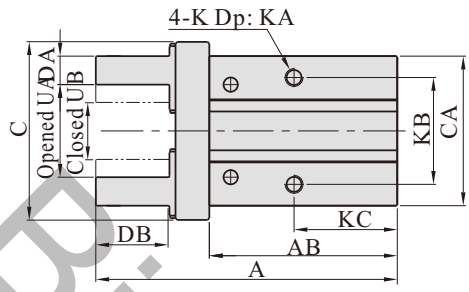


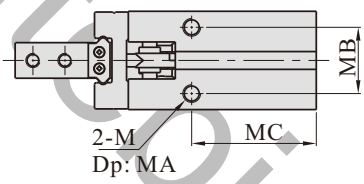


Φ16~Φ40



Φ10





Model\Item	A	AB	B	C	CA	D	DA	DB	E	EA
HFZ10	57	37.5	16.5	30	23	$5^{0}_{-0.05}$	$4^{0}_{-0.05}$	12	M2.5×0.45	3
HFZ16	67.5	42.5	23.5	39	30.5	8	5	15	M3×0.5	4
HFZ20	85	53	27.5	53	42	$10^{0}_{-0.05}$	$8^{0}_{-0.05}$	20	M4×0.7	5
HFZ25	103	64	33.5	71	52	12	10	25	M5×0.8	6
HFZ32	113(122)	67(76)	40	106	60	$15^{0}_{-0.05}$	$12^{0}_{-0.05}$	29	M6×1.0	7
HFZ40	139(152)	83(96)	48	132	72	18	14	36	M8×1.25	9

Model\Item	EB	K	KA	KB	KC	L	LA	LB	LC	M	MA	MB
HFZ10	5.7	M3×0.5	5	16	23	M3×0.5	6	18	12	M3×0.5	6	11.5
HFZ16	7	M4×0.7	7	24	24.5	M4×0.7	8	22	15	M4×0.7	4.5	16
HFZ20	9	M5×0.8	8	30	29	M5×0.8	10	32	18	M5×0.8	8	18.5
HFZ25	12	M6×1.0	10	36	30	M6×1.0	12	40	22	M6×1.0	10	22
HFZ32	14	M6×1.0	10	46	40(49)	M6×1.0	12	46	26	M6×1.0	10	26
HFZ40	17	M8×1.25	12	56	49(62)	M8×1.25	16	56	32	M8×1.25	12	32

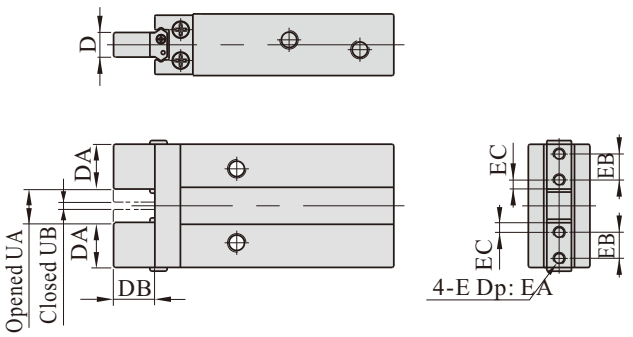
Model\Item	MC	N	NA	P	PA	PB	PC	UA(Opened)	UB(Closed)
HFZ10	27	$\Phi11^{+0.05}_{0}$	1.5	M3×0.5	7	19	10	15.5^{+2}_{0}	11.5^{0}_{-1}
HFZ16	30	Φ17	1.5	M5×0.8	7.5	19	13	21	15
HFZ20	35	$\Phi21^{+0.05}_{0}$	2	M5×0.8	9.5	23	15	26.5^{+2}_{0}	16.5^{0}_{-1}
HFZ25	36.5	Φ26	2	M5×0.8	9	24	20	33.5	19.5
HFZ32	48(57)	$\Phi34^{+0.05}_{0}$	2.5	M5×0.8	9.5	31(40)	24	$48^{+2.5}_{0}$	26^{0}_{-1}
HFZ40	58(71)	Φ42	2.5	M5×0.8	10.5	38(50)	28	60	30

[Note]The values in "()" in the above table are single acting type sizes.

Parallel style with guide track——ball bearing

Bottom mounting type(F type)

Φ6

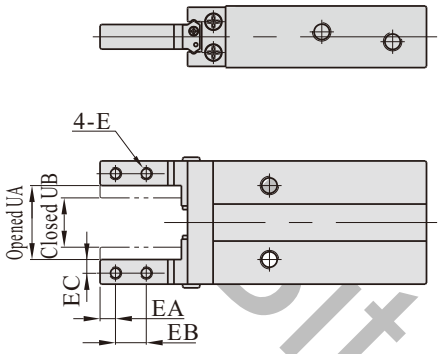


Model\Item	D	DA	DB	EA	EB	E
HFZ6-F	$4^{0}_{-0.05}$	7.5	7	3	3.5	M2×0.4

Model\Item	UA(Opened)	UB(Closed)
HFZ6-F	$5^{+1.5}_{0}$	$1.8^{0}_{-0.5}$

Side mounting type(B type)

Φ6

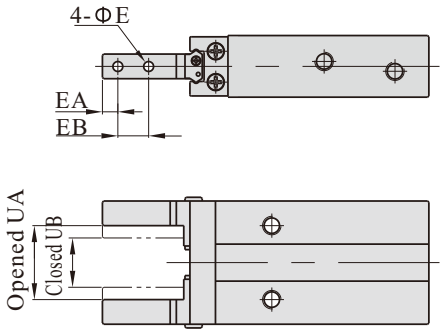


Model\Item	E	EA	EB	EC
HFZ6-B	M2×0.4	2.5	5	2

Model\Item	UA(Opened)	UB(Closed)
HFZ6-B	11^{+2}_{0}	8^{0}_{-1}

Thru.hole mounting type(N type)

Φ6



Model\Item	E	EA	EB
HFZ6-N	2.3	2.5	5

Model\Item	UA(Opened)	UB(Closed)
HFZ6-N	11^{+2}_{0}	8^{0}_{-1}

[Note] The other dimensions are the same as standard type.