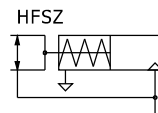
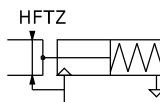
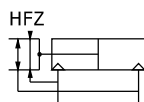




Air gripper—HFZ Series

Parallel style with guide track—Ball bearing



Ordering code

HFZ 20 □



① Model

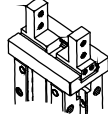
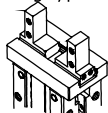
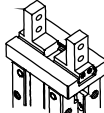
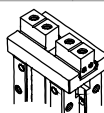
- HFZ: Air finger(Double acting)
- HFSZ: Air finger
(Single acting and normally closed)
- HFTZ: Air finger
(Single acting and normally opened)

② Bore size

6 10 16 20 25 32 40

HFZ series are all attached with magnet.
Sensor should be ordered individually.

③ Finger type

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

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 | 28~100psi(0.2~0.7MPa) | | | | | | |
| | | Others | 22~100psi(0.15~0.7MPa) | | | | | | |
| | Single acting | Φ6, Φ10 | 50~100psi(0.35~0.7MPa) | | | | | | |
| | | Others | 36~100psi(0.25~0.7MPa) | | | | | | |
| Temperature | | -20~70°C | | | | | | | |
| Lubrication | | Not required | | | | | | | |
| Repeatability mm | | ±0.01 | | | | | | ±0.02 | |
| Max. frequency | | 180(c.p.m) | | | | | | 60(c.p.m) | |
| Sensor switches | | CMSH DMSH,EMSH | | | CMSG, DMSG, EMSG CMSh,DMSH,EMSH | | | | |
| Port size | | M3×0.5 | | | M5×0.8 | | | | |

Add) Refer to P530 for detail of sensor.



Air gripper(parallel style——Ball bearing)

AIRTAC

HFZ Series

Bore size: $\Phi 6$, $\Phi 10$, $\Phi 16$, $\Phi 20$, $\Phi 25$, $\Phi 32$, $\Phi 40$

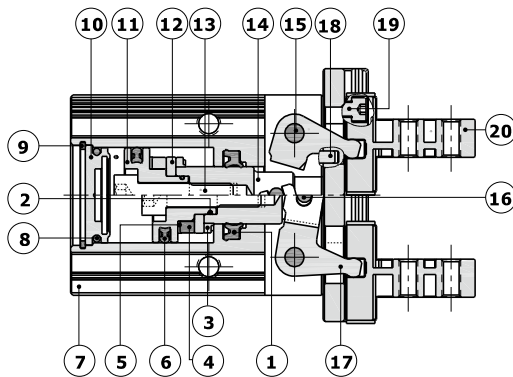
Gripping force and stroke

| 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 | 1365 | 26 | 57 | 125 | 238 | 430 | 778 | 1365 |

[Note] The gripping force in the above table is in the working pressure of 75psi, and with a gripping point of L=20mm.

Add) Please refer to page 437 for the definition of "L".

Inner structure



| NO. | Item |
|-----|-----------------------------------------|
| 1 | Rod packing |
| 2 | O-ring |
| 3 | Bumper |
| 4 | Magnet |
| 5 | Magnet washer |
| 6 | Piston seal |
| 7 | Body |
| 8 | O-ring |
| 9 | C clip |
| 10 | Back cover |
| 11 | Piston |
| 12 | Magnet fixed flake |
| 13 | Screw |
| 14 | Piston rod |
| 15 | Pin |
| 16 | Pin |
| 17 | Curved bar |
| 18 | Pin |
| 19 | Countersink screw |
| 20 | Assembly of clamping jaw and guide rail |

Note: inner structure & material data sheet is based on certain bore size.
Please contact AirTAC if you need inner structure & material data sheet for specific bore size.

Air gripper(parallel style—Ball bearing)

AIRTAC

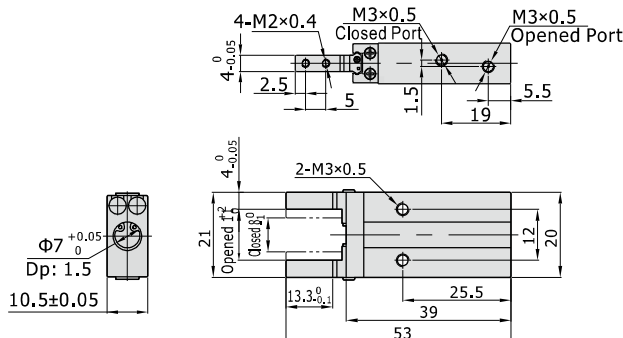
HFZ Series

Bore size: $\Phi 6$, $\Phi 10$, $\Phi 16$, $\Phi 20$, $\Phi 25$, $\Phi 32$, $\Phi 40$

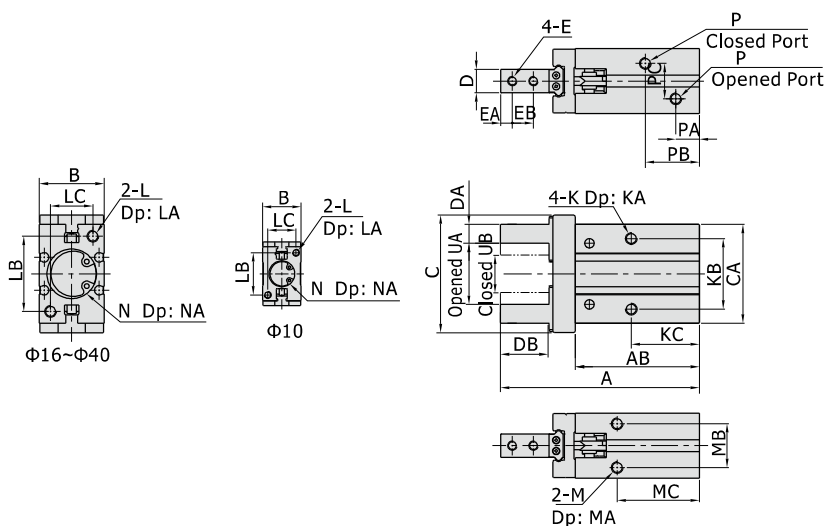
Dimensions

Standard

$\Phi 6$



$\Phi 10 \sim \Phi 40$



[Unit: mm]

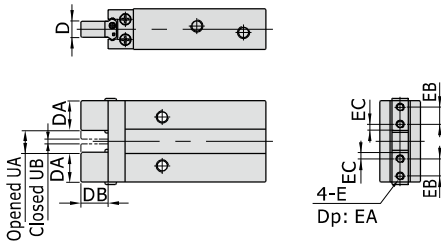
| Model\Item | A | AB | B | C | CA | D | DA | DB | E | EA | EB | K | KA | KB | KC | L |
|------------|----------|--------|------|-----|------|----------------|----------------|------------------|-----------|----|-----|---------|----|----|--------|---------|
| HFZ10 | 57 | 37.5 | 16.5 | 30 | 23 | $5_{-0.05}^0$ | $4_{-0.05}^0$ | $12.2_{-0.1}^0$ | M2.5×0.45 | 3 | 5.7 | M3×0.5 | 5 | 16 | 23 | M3×0.5 |
| HFZ16 | 67.5 | 42.5 | 23.5 | 39 | 30.5 | $8_{-0.05}^0$ | $5_{-0.05}^0$ | $15.3_{-0.1}^0$ | M3×0.5 | 4 | 7 | M4×0.7 | 7 | 24 | 24.5 | M4×0.7 |
| HFZ20 | 85 | 53 | 27.5 | 53 | 42 | $10_{-0.05}^0$ | $8_{-0.05}^0$ | $20.5_{-0.1}^0$ | M4×0.7 | 5 | 9 | M5×0.8 | 8 | 30 | 29 | M5×0.8 |
| HFZ25 | 103 | 64 | 33.5 | 71 | 52 | $12_{-0.05}^0$ | $10_{-0.05}^0$ | $25.3_{-0.1}^0$ | M5×0.8 | 6 | 12 | M6×1.0 | 10 | 36 | 30 | M6×1.0 |
| HFZ32 | 113(122) | 67(76) | 40 | 106 | 60 | $15_{-0.05}^0$ | $12_{-0.05}^0$ | $29.75_{-0.1}^0$ | M6×1.0 | 7 | 14 | M6×1.0 | 10 | 46 | 40(49) | M6×1.0 |
| HFZ40 | 139(152) | 83(96) | 48 | 132 | 72 | $18_{-0.05}^0$ | $14_{-0.05}^0$ | $36.75_{-0.1}^0$ | M8×1.25 | 9 | 17 | M8×1.25 | 12 | 56 | 49(62) | M8×1.25 |

| Model\Item | LA | LB | LC | M | MA | MB | MC | N | NA | P | PA | PB | PC | UA(Opened) | UB(Closed) |
|------------|----|----|----|---------|-----|------|--------|---------------------|-----|--------|------|--------|----|---------------|---------------|
| HFZ10 | 6 | 18 | 12 | M3×0.5 | 6 | 11.5 | 27 | $\Phi 11_{+0.05}^0$ | 1.5 | M3×0.5 | 7 | 19 | 10 | 15.5_{+2}^0 | 11.5_{-1}^0 |
| HFZ16 | 8 | 22 | 15 | M4×0.7 | 4.5 | 16 | 30 | $\Phi 17_{+0.05}^0$ | 1.5 | M5×0.8 | 7.5 | 19 | 13 | 21_{+2}^0 | 15_{-1}^0 |
| HFZ20 | 10 | 32 | 18 | M5×0.8 | 8 | 18.5 | 35 | $\Phi 21_{+0.05}^0$ | 2 | M5×0.8 | 9.5 | 23 | 15 | 26.5_{+2}^0 | 16.5_{-1}^0 |
| HFZ25 | 12 | 40 | 22 | M6×1.0 | 10 | 22 | 36.5 | $\Phi 26_{+0.05}^0$ | 2 | M5×0.8 | 9 | 24 | 20 | 33.5_{+2}^0 | 19.5_{-1}^0 |
| HFZ32 | 12 | 46 | 26 | M6×1.0 | 10 | 26 | 48(57) | $\Phi 34_{+0.05}^0$ | 2.5 | M5×0.8 | 9.5 | 31(40) | 24 | $48_{+2.5}^0$ | 26_{-1}^0 |
| HFZ40 | 16 | 56 | 32 | M8×1.25 | 12 | 32 | 58(71) | $\Phi 42_{+0.05}^0$ | 2.5 | M5×0.8 | 10.5 | 38(50) | 28 | $60_{+2.5}^0$ | 30_{-1}^0 |

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

Bottom mounting type(F type)

Φ6



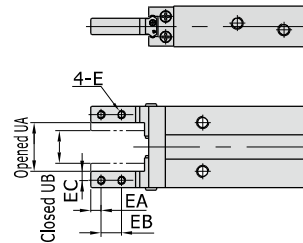
[Unit: mm]

| Model\Item | D | DA | DB | EA | EB | EC | E |
|------------|---------------------------------|-----|----|----|-----|----|--------|
| HFZ6F | 4 ⁰ _{-0.05} | 7.5 | 7 | 3 | 3.5 | 2 | M2×0.4 |

| Model\Item | UA(Opened) | UB(Closed) |
|------------|--------------------------------|----------------------------------|
| HFZ6F | 5 ^{+1.5} ₀ | 1.8 ⁰ _{-0.5} |

Side mounting type(B type)

Φ6



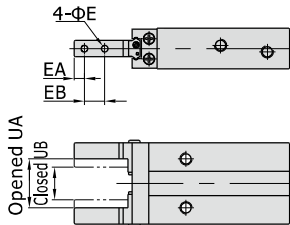
[Unit: mm]

| Model\Item | E | EA | EB | EC |
|------------|--------|-----|----|----|
| HFZ6B | M2×0.4 | 2.5 | 5 | 2 |

| Model\Item | UA(Opened) | UB(Closed) |
|------------|-------------------------------|------------------------------|
| HFZ6B | 11 ⁺² ₀ | 8 ⁰ ₋₁ |

Thru.hole mounting type(N type)

Φ6



[Unit: mm]

| Model\Item | E | EA | EB |
|------------|-----|-----|----|
| HFZ6N | 2.3 | 2.5 | 5 |

| Model\Item | UA(Opened) | UB(Closed) |
|------------|-------------------------------|------------------------------|
| HFZ6N | 11 ⁺² ₀ | 8 ⁰ ₋₁ |

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

How to select product \ Installation and application

Please refer to HFK series for details.