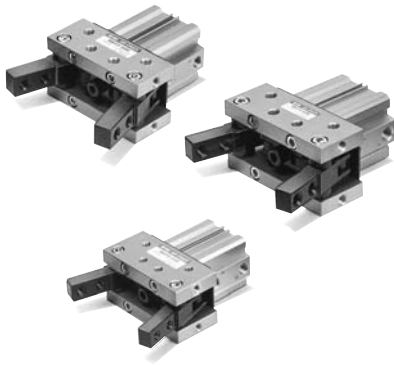


Toggle Style Air Gripper

Series MHT2

ø32, ø40, ø50, ø63

- Ideal for holding heavy work.
- The toggle mechanism holds work even when pressure drops.
- Auto switch is attachable.



Switch Mounting Bracket Parts No.

| Bore size (mm) | Bracket No. | Notes | Applicable switch |
|------------------|-------------|--|--|
| 32, 40 50, 63 | BQ-2 | · Switch mounting screw (M3x0.5 x10 ϕ) | Reed switch D-A7, A8 D-A73C, A80C D-A7□H, A80H D-A79W |
| | | · Switch spacer | Solid state switch D-F7□, J79 D-F7□V D-J79C D-F7□W, J79W D-F7□WV D-F7BAL D-F7□F |
| | | · Switch mounting nut | |

How to Order

MHT2-32 D-A73 S

- MHT2**: Toggle style air gripper
- 32**: Cylinder bore (2 fingers)
- D**: Action (Double acting)
- A73**: Applicable auto switch
- S**: Number of auto switches (2)

| | |
|----|-------|
| 32 | 32 mm |
| 40 | 40 mm |
| 50 | 50 mm |
| 63 | 63 mm |

| | |
|---|---------------------------------------|
| — | Without auto switch (built-in magnet) |
| S | 1 |
| n | n |

| | |
|---|---------|
| — | Rc (PT) |
| E | G (PF) |

*See Table below for the details of auto switch specifications.

Auto Switch Specifications

Refer to p.2.11-1 for further information of auto switch.

| Type | Special function | Electrical entry | Indicator light | Wiring (Output) | Load voltage | | Rain mounting | | Direct mounting | | Lead wire length (m)* | | | | Applicable load | | | | | | | | |
|--------------------|------------------|------------------|-----------------|--------------------|--------------|---------|---------------|---------|-----------------|---------|-----------------------|-------|---------|--------------|-----------------|------|-------|-------|-----|---------|---|---|------------|
| | | | | | AC | DC | Perpendicular | In-line | Perpendicular | In-line | 0.5 (—) | 3 (L) | 0.5 (Z) | None (N) | | | | | | | | | |
| Reed switch | — | Grommet | Yes | 3-wire (NPN equi.) | — | 5V | — | — | A76H | A96V | A96 | ● | ● | — | IC circuit | | | | | | | | |
| | | | | | | | | | | | | 24V | 12V | 100V | | A72 | A72H | — | — | ● | ● | — | |
| | | | | | | | | | | | | | | | | A73 | A73H | — | — | ● | ● | — | |
| | | | | | | | | | | | | 24V | 5V, 12V | 100V or less | | A80 | A80H | A90V | A90 | ● | ● | — | IC circuit |
| | | | | | | | | | | | | | | | | A73C | — | — | — | ● | ● | — | |
| | | | | | | | | | | | | 24V | 5V, 12V | 24V or less | | A80C | — | — | — | ● | ● | — | IC circuit |
| A79W | — | — | — | ● | ● | — | | | | | | | | | | | | | | | | | |
| Solid state switch | — | Grommet | Yes | 3-wire (NPN) | — | 5V, 12V | — | — | F79V | F79 | — | ● | ● | ○ | IC circuit | | | | | | | | |
| | | | | | | | | | | | | 24V | 12V | — | | — | F9NV | F9N | ● | ● | ○ | | |
| | | | | | | | | | | | | | | | | | | | 24V | 5V, 12V | — | — | F7PV |
| | | | | | | | | | | | | 24V | 12V | — | | — | F9PV | F9P | | | | | |
| | | | | | | | | | | | | | | | | | | | 24V | 12V | — | — | F7BV |
| | | | | | | | | | | | | 24V | 12V | — | | — | F9BV | F9B | | | | | |
| | | | | | | | | | | | | | | | | | | | 24V | 5V, 12V | — | — | J79C |
| | | | | | | | | | | | | 24V | 5V, 12V | — | | — | F7NVV | F9NVV | | | | | |
| | | | | | | | | | | | | | | | | | | | 24V | 12V | — | — | F79W |
| | | | | | | | | | | | | 24V | 12V | — | | — | F7PW | — | | | | | |
| | | | | | | | | | | | | | | | | | | | 24V | 12V | — | — | F9PWV |
| | | | | | | | | | | | | 24V | 12V | — | | — | F7BWW | J79W | | | | | |
| 24V | 5V, 12V | — | — | F7BA* | F9BA* | ● | ● | ○ | | | | | | | | | | | | | | | |
| | | | | | | 24V | 5V, 12V | — | — | F79F | — | ● | ● | ○ | | | | | | | | | |
| 24V | — | — | — | F7LF | — | | | | | | | ● | ● | ○ | | | | | | | | | |

* Lead wire length 0.5m..... (Example) A80C 3m..... L (Example) A80CL 5m..... Z (Example) A80CZN (Example) A80CN
 * Solid state switch with mark "○" is made to order.
 * D-F7□WV, Z(5m) is not available.
 * F7BA and F9BA is applicable to oil-proof auto switch (-X5).

Model/Specifications

| Model | MHT2-32D | MHT2-40D | MHT2-50D | MHT2-63D |
|---|---------------|------------|------------|------------|
| Bore size (mm) | 32 | 40 | 50 | 63 |
| Action | Double acting | | | |
| Fluid | Air | | | |
| Operating pressure | 0.1 to 0.6MPa | | | |
| Ambient and fluid temperature | 5 to 60°C | | | |
| Lubrication | Non-lube | | | |
| Finger opening angle (total) | -3° to 28° | -3° to 27° | -2° to 23° | -2° to 23° |
| Weight | 0.80 kg | 1.09 kg | 1.93kg | 2.8 kg |
| Holding moment (Effective value) Nm ^{Note} | 12.4 | 36.0 | 63.0 | 106 |

Note) At pressure 0.5 MPa

MHZ

MHQ

MHL2

MHR

MHK

MHS

MHC2

MHT2

MHY2

MHW2

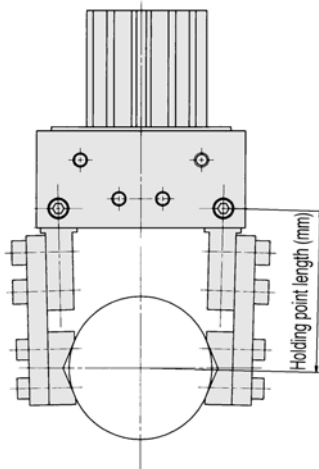
MRHQ

Auto switch

Series MHT2

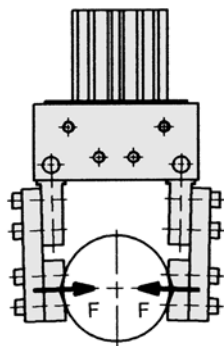
Effective Holding Force

- Work holding point should be within the range indicated in the graph.



● Indication of effective holding force

The holding force shown in the tables represents the holding force of one finger when all fingers and attachment are in contact with the work. F = one finger thrust.



⚠️ Caution

Be sure to read before handling. Refer to p.0-20 and 0-21 for Safety Instructions and common precautions on the product mentioned in this catalogue, and refer to p.2.0-3 to 2.0-4 for precautions of every series.

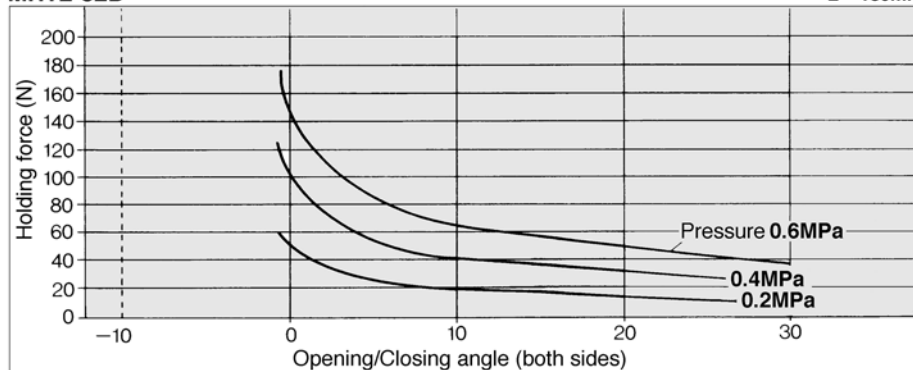
⚠️ Warning

Maintenance

If a workpiece is to be held by using the toggle, make sure to periodically check that the workpiece has not shifted during the acceleration of the movement. If the workpiece is not held in a stable manner, it could shift or drop and create a dangerous situation. If the workpiece is not held in a stable manner, use shims on the attachment to adjust the hold. To verify the gripping condition or to make any adjustments, make sure to do so in an area where the air gripper or the workpiece will not fall.

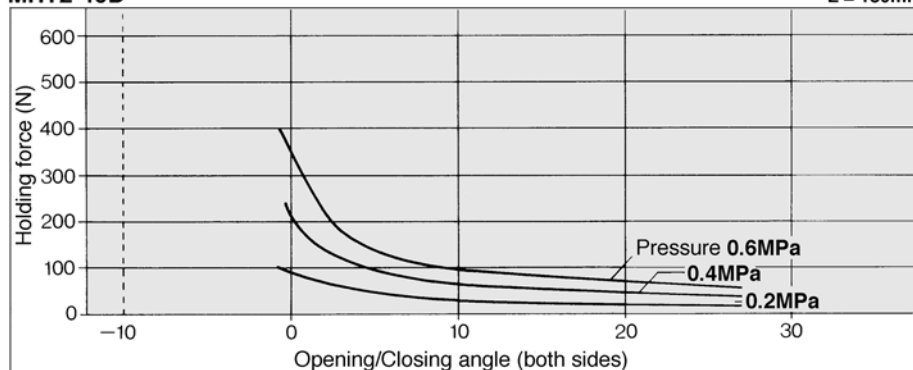
MHT2-32D

L = 180mm



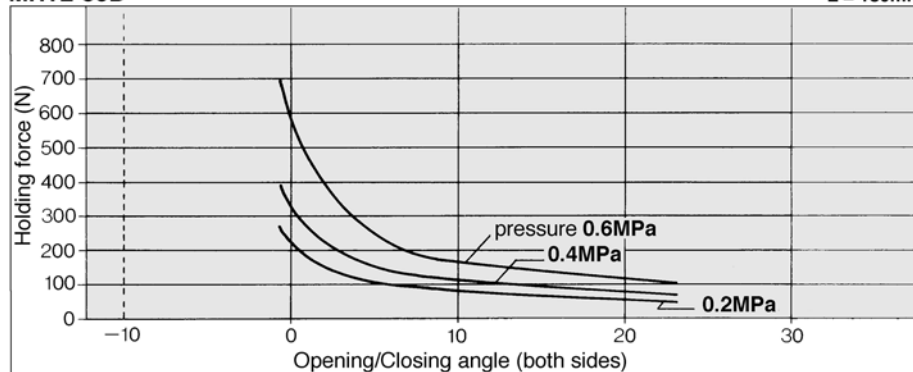
MHT2-40D

L = 180mm



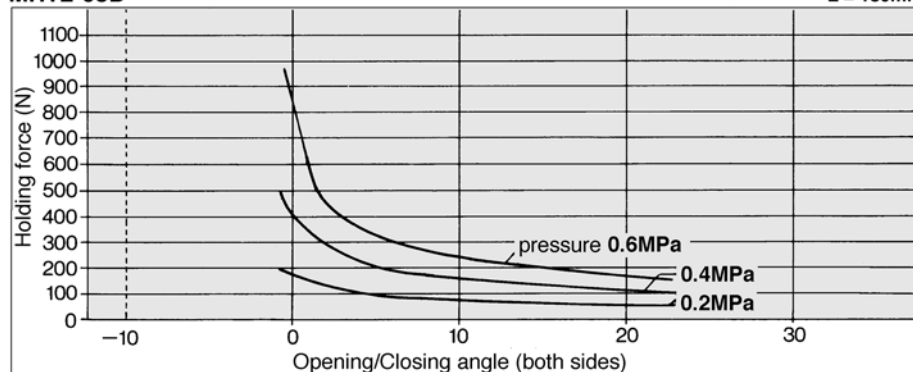
MHT2-50D

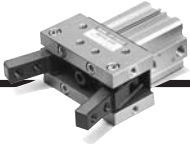
L = 180mm



MHT2-63D

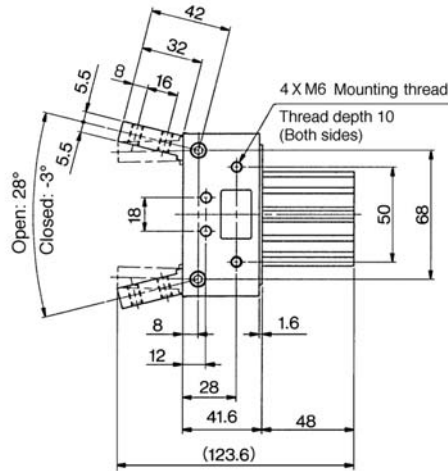
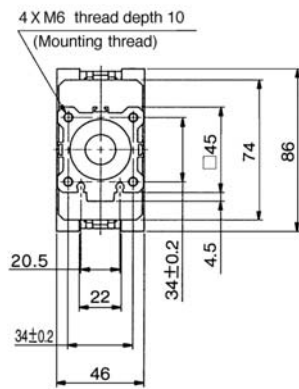
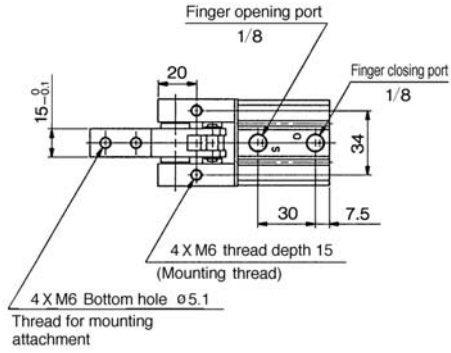
L = 180mm



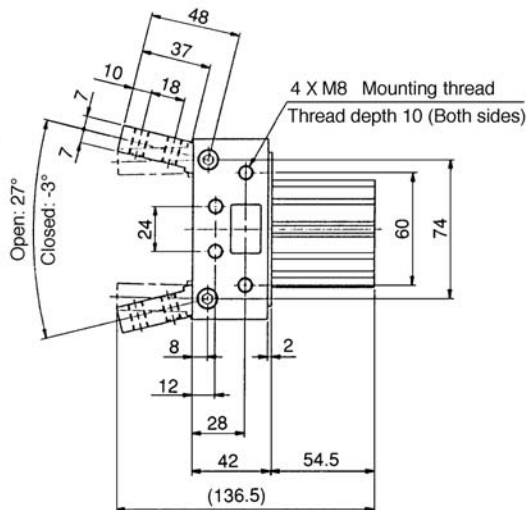
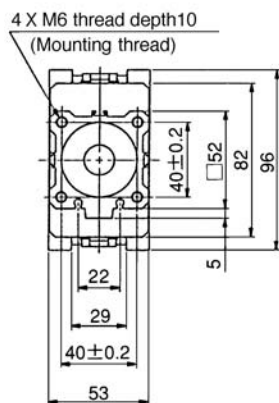
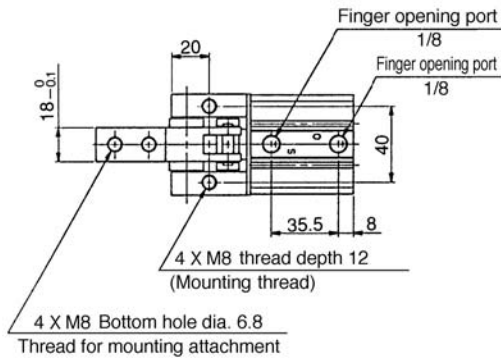


Dimensions

MHT2-32D



MHT2-40D



MHZ

MHQ

MHL2

MHR

MHK

MHS

MHC2

MHT2

MHY2

MHW2

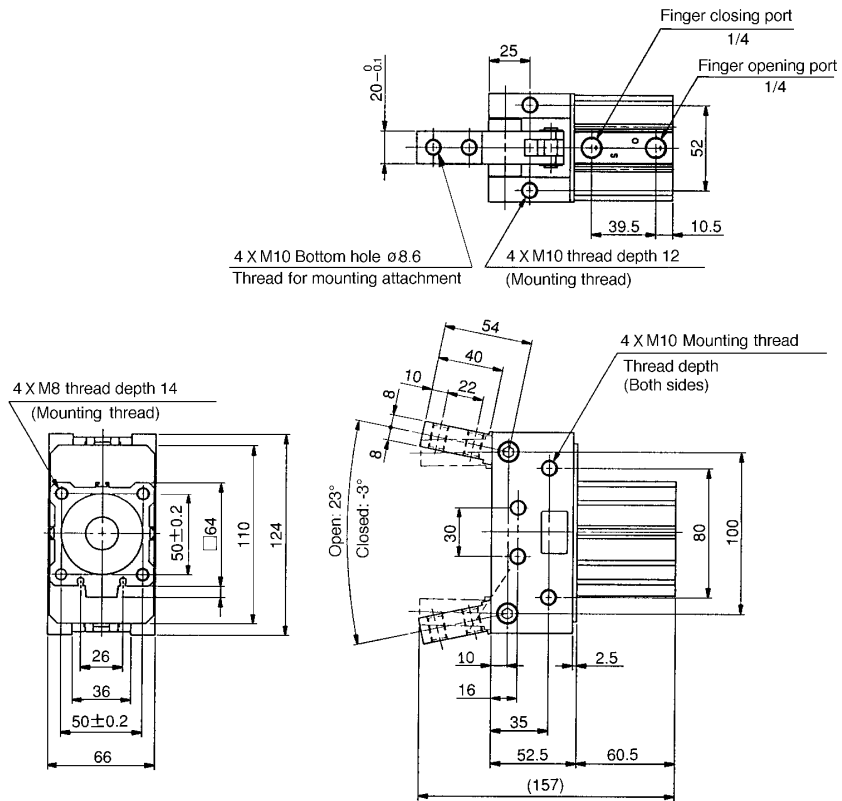
MRHQ

Auto switch

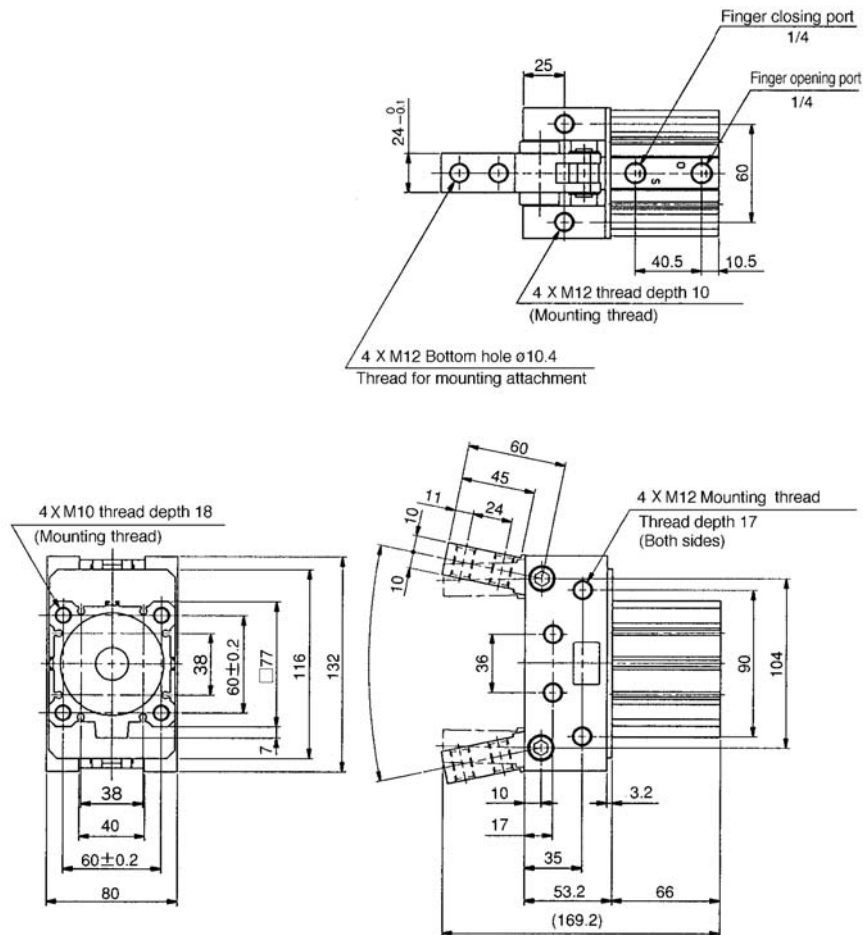
Series MHT2

Dimensions

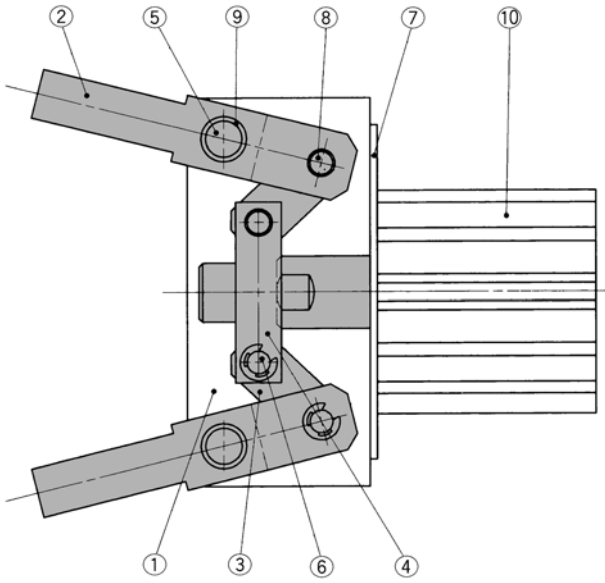
MHT2-50D



MHT2-63D



Construction

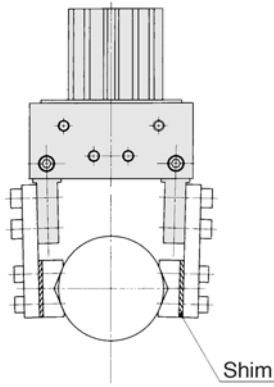


Component Parts

| No. | Description | Material | Note |
|-----|----------------|-----------------|---|
| ① | Side plate | Aluminium alloy | Anodized |
| ② | Finger | Carbon steel | Black zinc chromated |
| ③ | Lever | Carbon steel | Black zinc chromated |
| ④ | Joint | Carbon steel | Black zinc chromated |
| ⑤ | Shaft | Stainless steel | |
| ⑥ | Joint pin | Stainless steel | |
| ⑦ | Cylinder plate | Soft steel | Black zinc chromated |
| ⑧ | Lever pin | Stainless steel | |
| ⑨ | Bearing | | Steel lined oil imfilled acetal resin bearing |
| ⑩ | Cylinder | | Compact cylinder |

Attachment Design

Use shims for fine adjustment of the attachment.



MHZ

MHQ

MHL2

MHR

MHK

MHS

MHC2

MHT2

MHY2

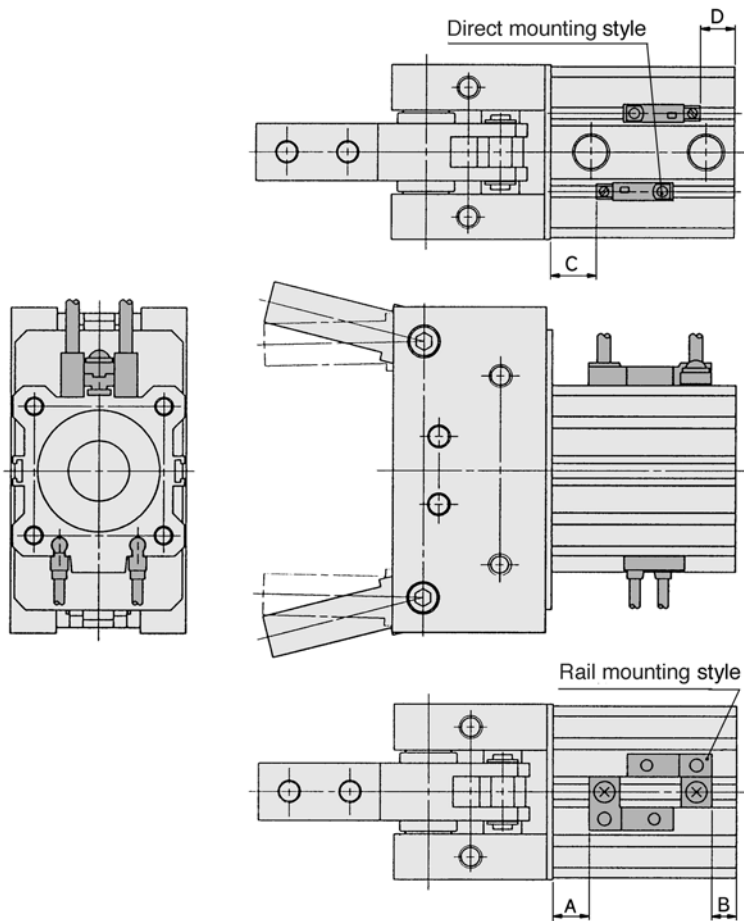
MHW2

MRHQ

Auto
switch

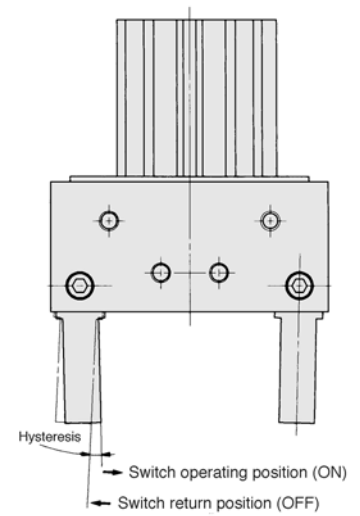
Series MHT2

Auto Switch Installation



D-A7, D-A8: Rail mounting type are shown above.
D-F□9V: Direct mounting type

Auto Switch Hysteresis



| Model | Hysteresis (Max.) angle |
|-----------------|-------------------------|
| MHT2-32D | 3 |
| MHT2-40D | 3 |
| MHT2-50D | 3 |
| MHT2-63D | 3 |

| Bore size (mm) | Rail mounting | | | | | | | | | | Direct mounting | | | | | |
|----------------|---------------|------|--|-----|--------|-----|--------------------------------------|------|---------|------|-----------------|------|-----------------|------|-----------------------------|------|
| | D-A7□/A80 | | D-A7□H/A80H D-A73C/A80C D-F7□/J79 D-F7□V/J79C | | D-A79W | | D-F7BA D-F7□W D-F7□F D-J79W | | D-F7□WV | | D-A9□ D-A9□V | | D-F9□ D-F9□V | | D-F9BA D-F9□W D-F9□WV | |
| | A | B | A | B | A | B | A | B | A | B | C | D | C | D | C | D |
| 32 | 9 | 6 | 9.5 | 6.5 | 6.5 | 3.5 | 13.5 | 10.5 | 10 | 7 | 8 | 5 | 12 | 9 | 11 | 8 |
| 40 | 13 | 8.5 | 13.5 | 9 | 10.5 | 6 | 17.5 | 13 | 14 | 9.5 | 12 | 7.5 | 16 | 11.5 | 15 | 10.5 |
| 50 | 11 | 11.5 | 11.5 | 12 | 8.5 | 9 | 15.5 | 16 | 12 | 12.5 | 10 | 10.5 | 14 | 14.5 | 13 | 13.5 |
| 63 | 13.5 | 14.5 | 14 | 15 | 11 | 12 | 18 | 19 | 14.5 | 15.5 | 12.5 | 13.5 | 16.5 | 17.5 | 15.5 | 16.5 |