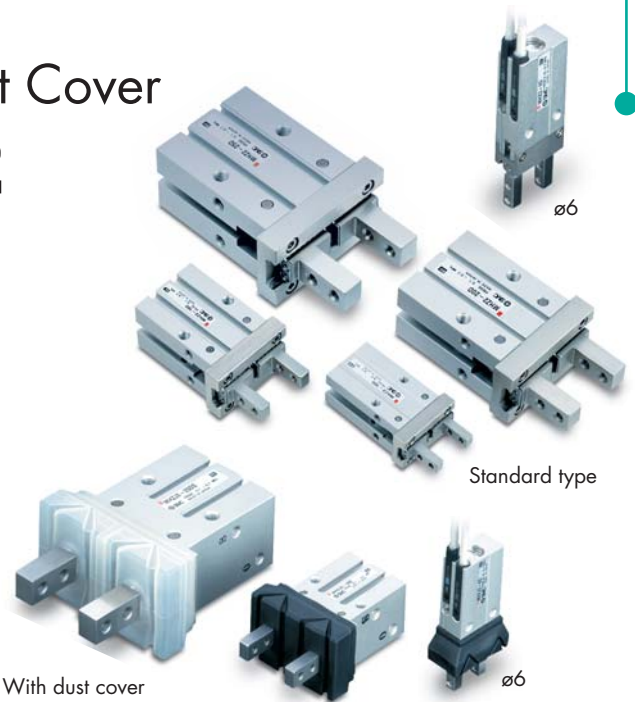# Parallel Style Air Gripper
Standard Type/With Dust Cover
Series MHZ2/MHZJ2

Size MHZ2: 6, 10, 16, 20, 25, 32, 40
Size MHZJ2: 6, 10, 16, 20, 25

Grippers

Features

▶ *Autoswitches can be added.*

▶ *Single and double acting design.*

▶ *MHZ2: General purpose compact grippers with integral linear guide that provides high rigidity and high accuracy.*

▶ *MHZJ2: Air grippers with dust-protected and drip-proof construction. Interchangeable in mounting dimensions with the standard models.*
A wider selection of dust cover materials is available to suit your application, please refer to Best Pneumatics catalogue.

ø6

Standard type

With dust cover

ø6

Specifications

Fluid			Air
Operating pressure	Double acting		ø6: 0.15 to 0.7 MPa ø10: 0.2 to 0.7 MPa ø16 to ø40: 0.1 to 0.7 MPa
	Single acting	Normally open	ø6: 0.3 to 0.7 MPa ø10: 0.35 to 0.7 MPa ø16 to ø40: 0.25 to 0.7 MPa
		Normally closed	
Ambient and fluid temperature			–10 to 60°C
Repeatability			ø6 to ø25: ±0.01 mm ø32, ø40: ±0.02 mm
Max. operating frequency			ø6 to ø25: 180 c.p.m. ø32, ø40: 60 c.p.m.
Lubrication			Not required
Action			Double acting/Single acting
Auto switch (Option) Note)			Solid state switch (3-wire, 2-wire)

How to Order

MHZ ☐ 2 — 16 D

Options

Nil	Standard
J	Dust Cover (ø6 to ø25) Chloroprene rubber,(CR)

Number of fingers

| 2 | 2 fingers |

Bore size

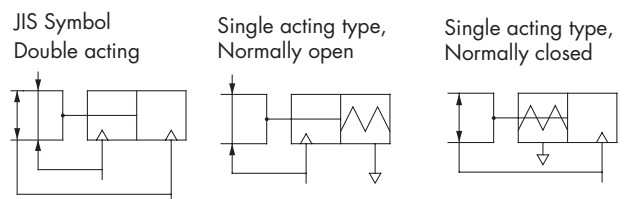| 6 | 6mm |
10	10mm
16	16mm
20	20mm
25	25mm
32	32mm
40	40mm

Action

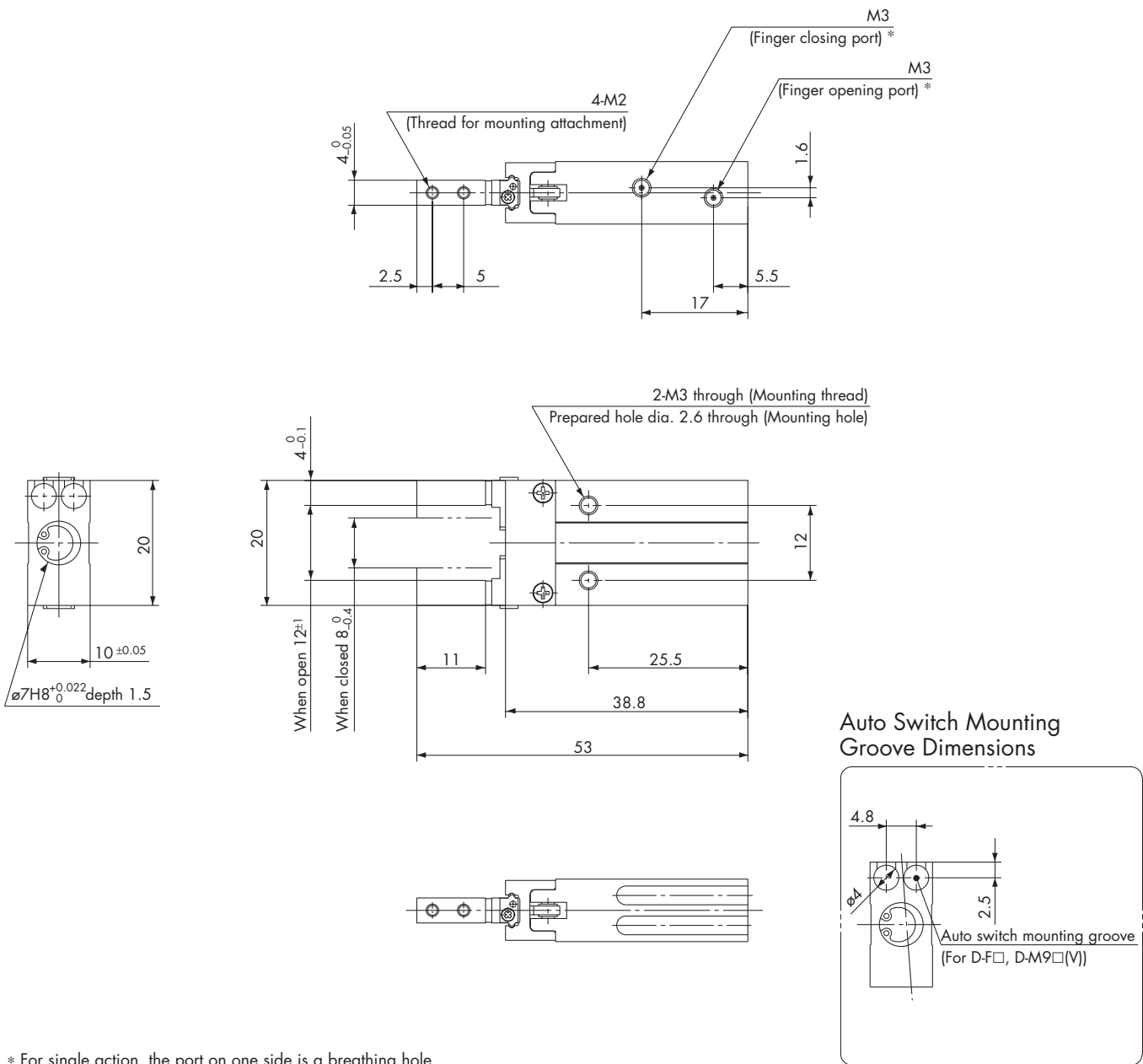| D | Double acting |
| S | Single acting (Normally open) |
| C | Single acting (Normally closed) |

∗ Note) Further finger and body options available, refer to Best Pneumatics.

▶ **Auto Switch Specifications**
Refer to switch section.

Model

Action		Model	Bore size (mm)	Gripping force [1]		Opening/Closing stroke (Both sides) (mm)
				Gripping force per finger Effective value (N)		
				External	Internal	
Double acting		MHZ☐2-6D	6	3.3	6.1	4
		MHZ☐2-10D	10	11	17	4
		MHZ☐2-16D	16	34	45	6
		MHZ☐2-20D	20	42	66	10
		MHZ☐2-25D	25	65	104	14
		MHZ2-32D	32	158	193	22
		MHZ2-40D	40	254	318	30
Single acting	Normally open	MHZ☐2-6S	6	1.9	—	4
		MHZ☐2-10S	10	7.1		4
		MHZ☐2-16S	16	27		6
		MHZ☐2-20S	20	33		10
		MHZ☐2-25S	25	45		14
		MHZ2-32S	32	131		22
		MHZ2-40S	40	217		30
	Normally closed	MHZ☐2-6C	6	—	3.7	4
		MHZ☐2-10C	10		13	4
		MHZ☐2-16C	16		38	6
		MHZ☐2-20C	20		57	10
		MHZ☐2-25C	25		83	14
		MHZ2-32C	32		161	22
		MHZ2-40C	40		267	30

Note 1) Values based on pressure of 0.5 MPa, gripping point L = 20 mm, at center of stroke.
Note 2) Except auto switch.

JIS Symbol
Double acting
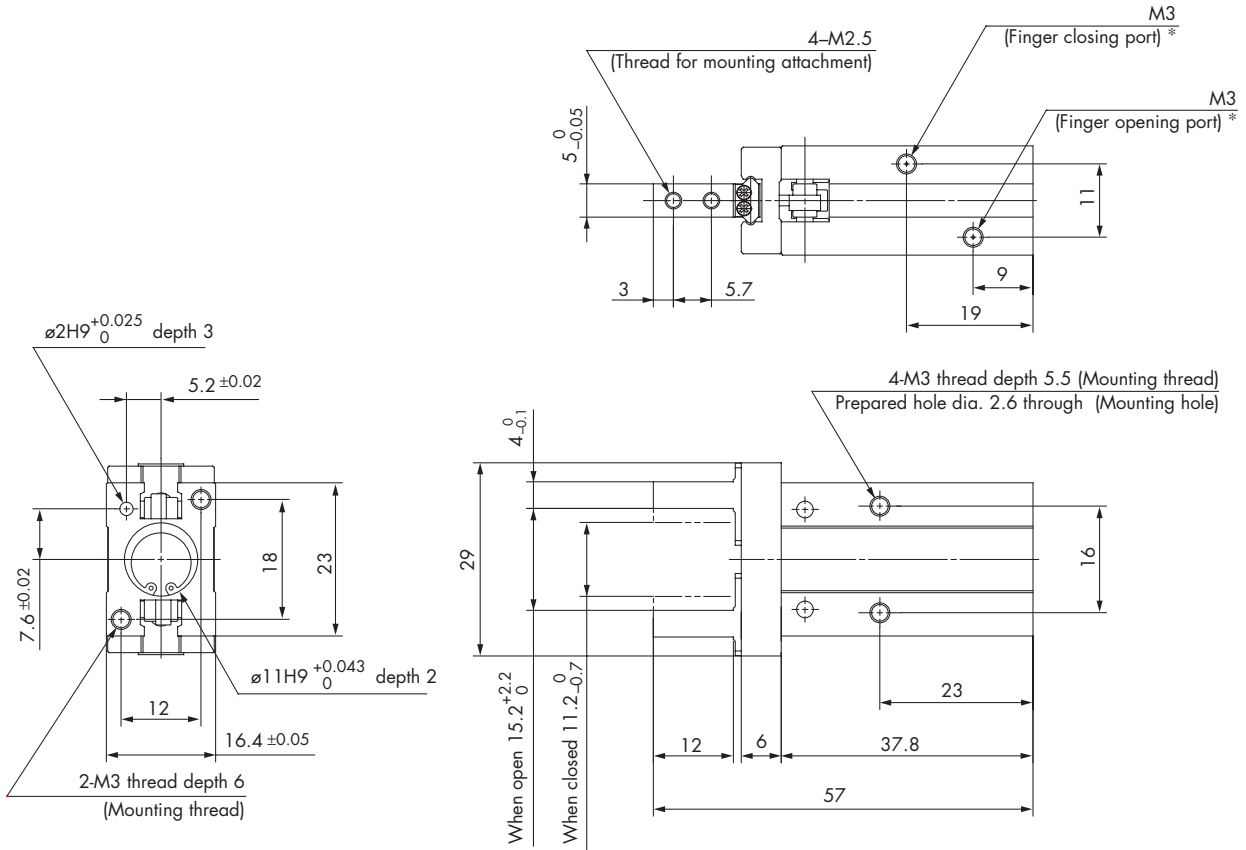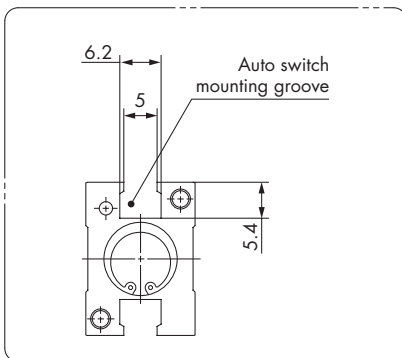
Single acting type,
Normally open

Single acting type,
Normally closed

Dimensions: MHZ2-6□ Double acting/Single acting. Basic type

M3
(Finger closing port) *

M3
(Finger opening port) *

4-M2
(Thread for mounting attachment)

$4_{-0.05}^{0}$

1.6

2.5

5

5.5

17

Grippers

2-M3 through (Mounting thread)
Prepared hole dia. 2.6 through (Mounting hole)

$4_{-0.1}^{0}$

20

20

12

When open 12±1

When closed $8_{-0.4}^{0}$

11

25.5

38.8

53

$10 ±0.05$

$ø7H8_{0}^{+0.022}$ depth 1.5

Auto Switch Mounting Groove Dimensions

4.8

ø4

2.5

Auto switch mounting groove
(For D-F□, D-M9□(V))

∗ For single action, the port on one side is a breathing hole.

Dimensions: MHZ2-10☐ Double acting/Single acting. Basic type

Grippers

4–M2.5
(Thread for mounting attachment)

M3
(Finger closing port) *

M3
(Finger opening port) *

$5_{-0.05}^{0}$

11

3   5.7

9

19

ø2H9$^{+0.025}_{0}$ depth 3

5.2 ±0.02

4$^{0}_{-0.1}$

4-M3 thread depth 5.5 (Mounting thread)
Prepared hole dia. 2.6 through (Mounting hole)

7.6 ±0.02

18   23

29

16

ø11H9$^{+0.043}_{0}$ depth 2

12

16.4 ±0.05

2-M3 thread depth 6
(Mounting thread)

When open 15.2$^{+2.2}_{0}$

When closed 11.2$^{0}_{-0.7}$

12   6   37.8

57

23

27

11.4

2-M3 thread depth 6
(Mounting thread)

* For single action, the port on one side is a breathing hole.

Auto Switch Mounting Groove Dimensions

6.2

5

Auto switch mounting groove

5.4

Note) When using D-Y59, D-Y69 and D-Y7 type auto switches, through-hole mounting is not possible.

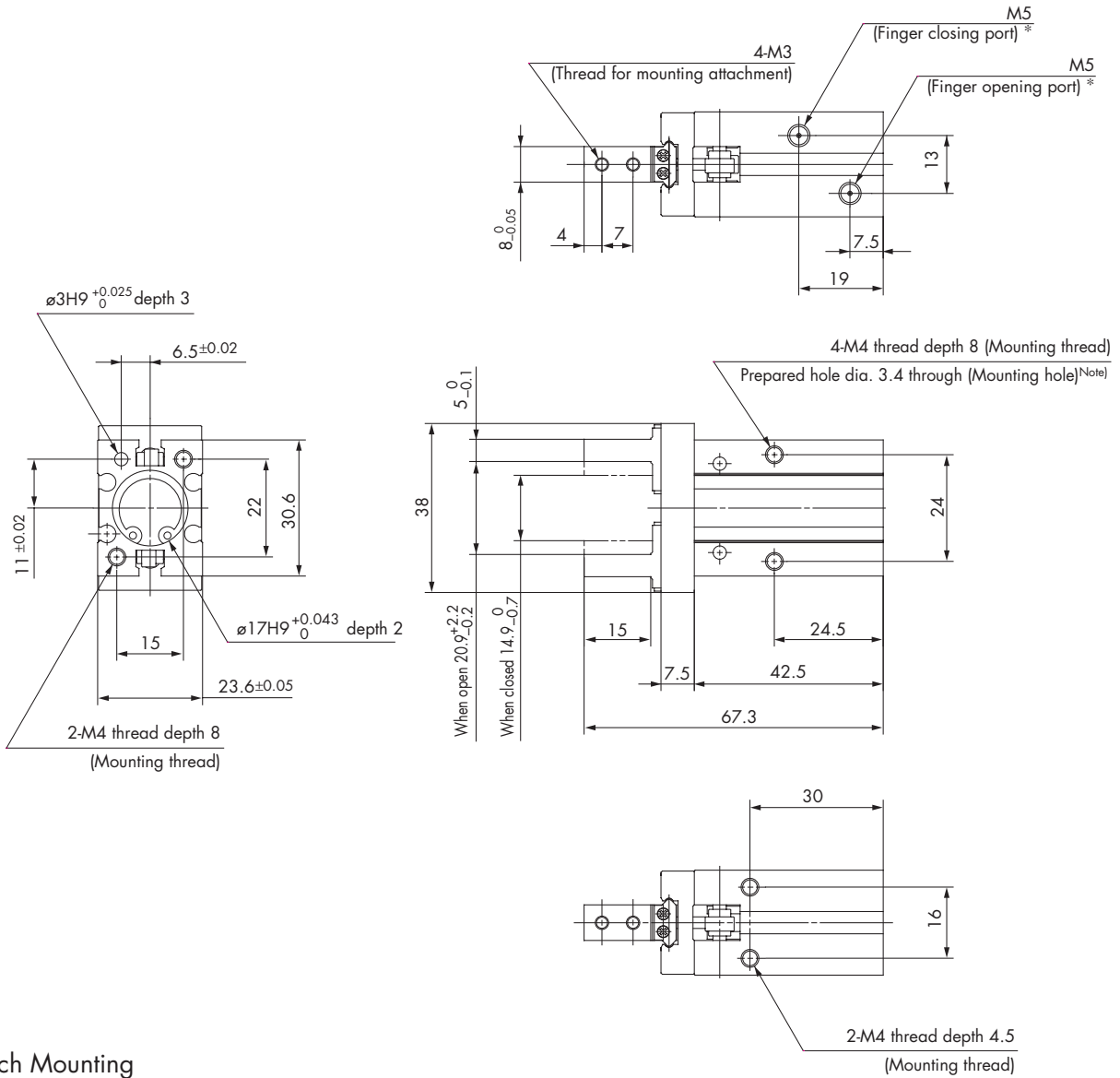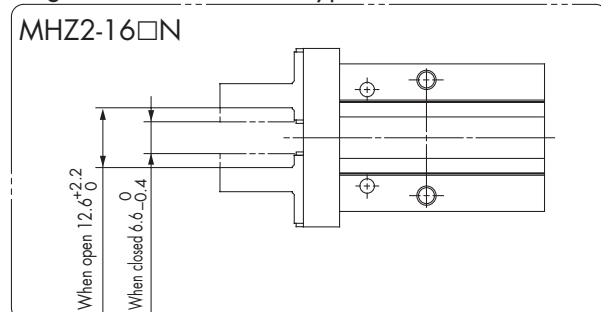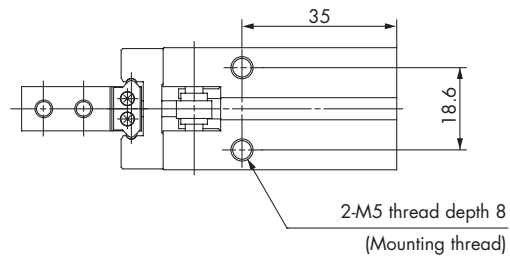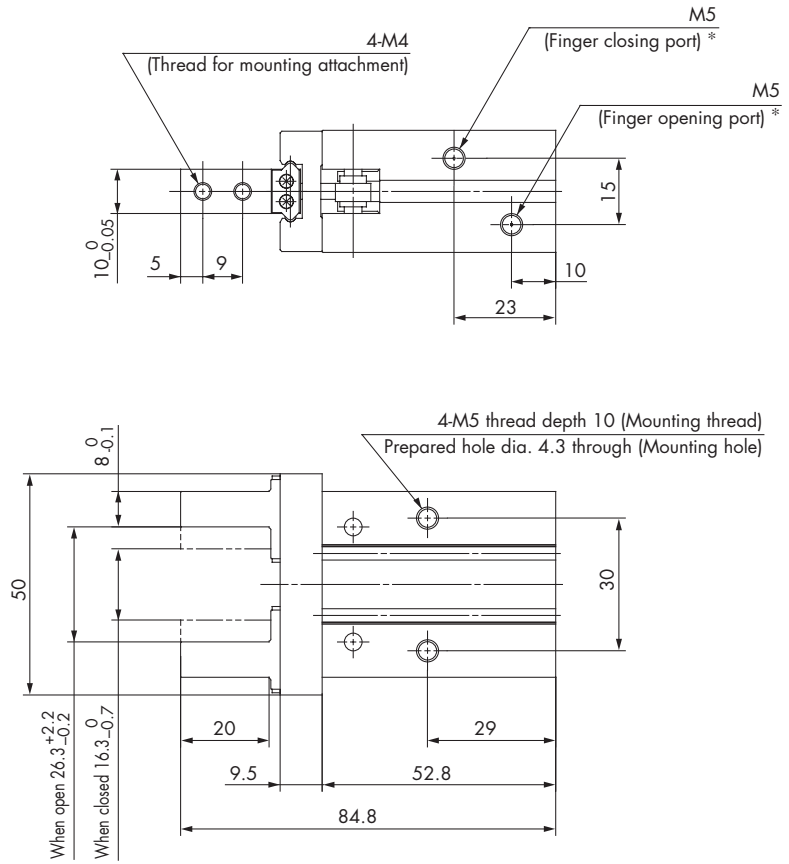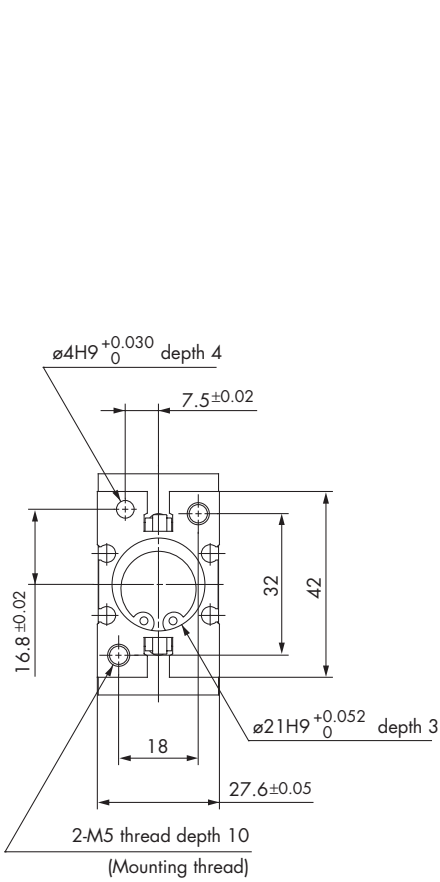**Finger Position/Narrow Type**

MHZ2-10☐N

When open 9.7$^{+2.2}_{0}$

When closed 5.7$^{0}_{-0.4}$
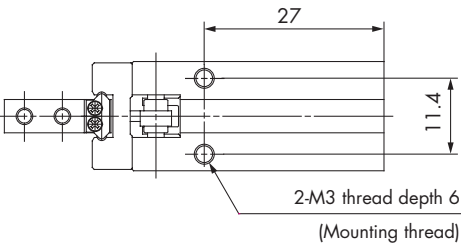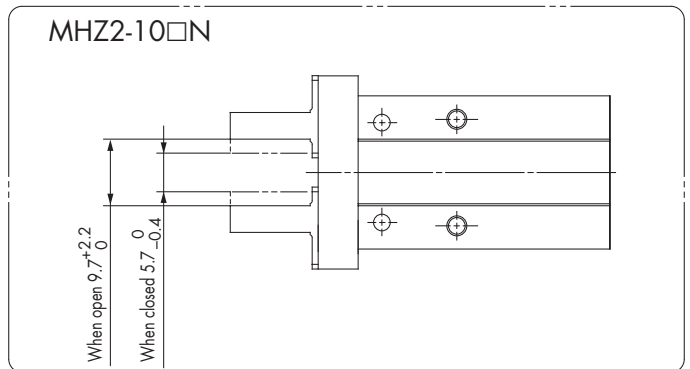
Dimensions: MHZ2-16□ Double acting/Single acting. Basic type
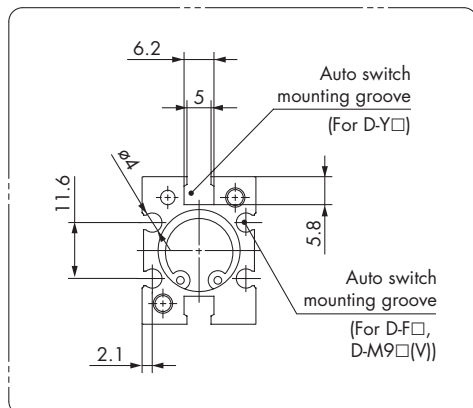
4-M3
(Thread for mounting attachment)

M5
(Finger closing port) *

M5
(Finger opening port) *

$8_{-0.05}^{0}$

4   7

13

7.5

19

ø3H9 $^{+0.025}_{0}$ depth 3

6.5±0.02

$5_{-0.1}^{0}$

4-M4 thread depth 8 (Mounting thread)

Prepared hole dia. 3.4 through (Mounting hole)[Note]

11±0.02

22

30.6

38

When open 20.9 $^{+2.2}_{-0.2}$

When closed 14.9 $^{0}_{-0.7}$

24

15

ø17H9 $^{+0.043}_{0}$ depth 2

23.6±0.05

15

24.5

7.5

42.5

67.3

2-M4 thread depth 8
(Mounting thread)

30

16

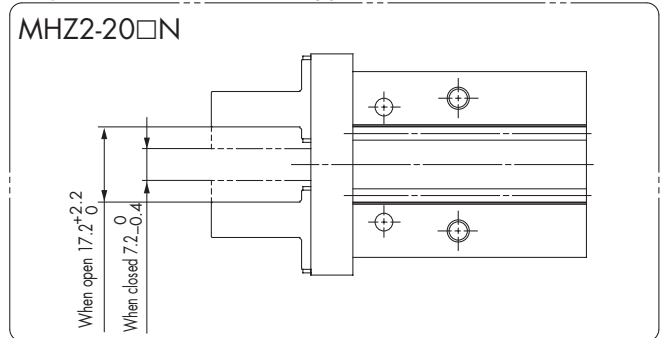2-M4 thread depth 4.5
(Mounting thread)

* For single action, the port on one
side is a breathing hole.

**Auto Switch Mounting
Groove Dimensions**

6.2

5

ø4

11.6

5.8

2.1

Auto switch
mounting groove
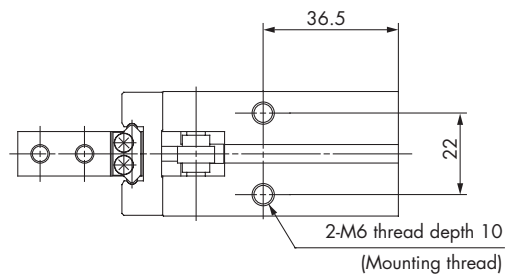(For D-Y□)

Auto switch
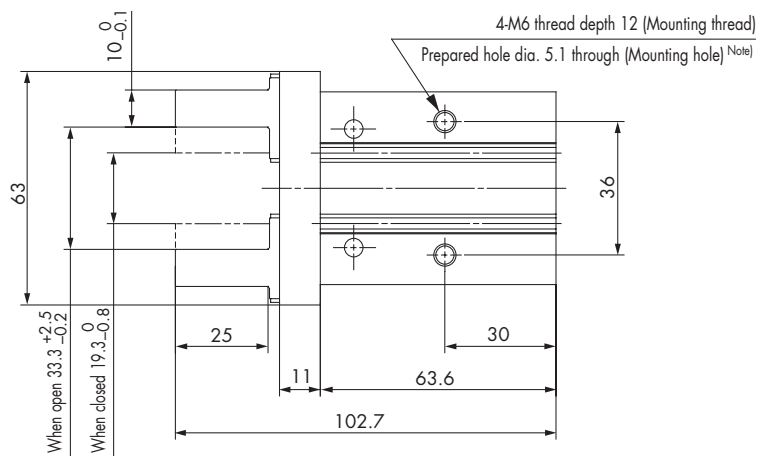mounting groove
(For D-F□,
D-M9□(V))
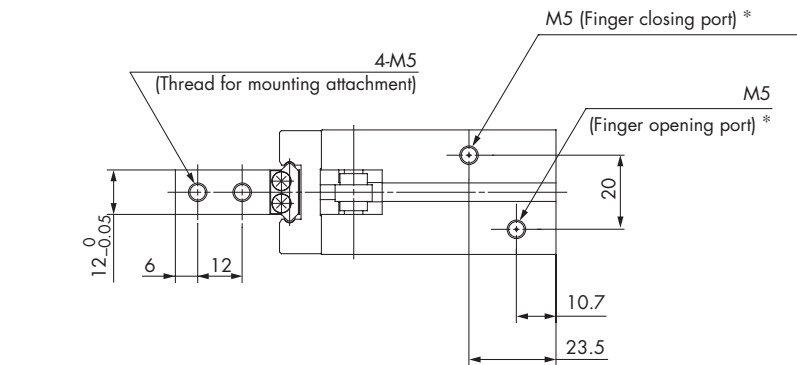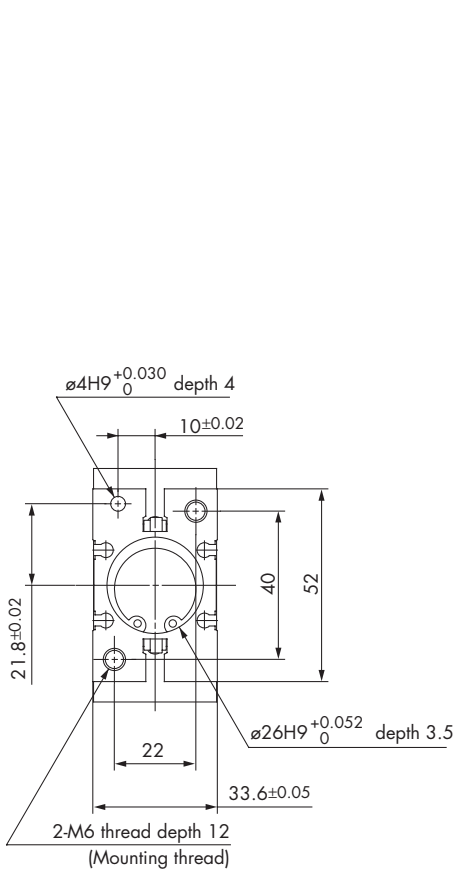
Note) When using D-Y59, D-Y69 and D-Y7 type auto
switches, through-hole mounting is not possible.

Finger Position/Narrow Type

MHZ2-16□N

When open 12.6 $^{+2.2}_{0}$

When closed 6.6 $^{0}_{-0.4}$

Grippers

Dimensions: MHZ2-20□ Double acting/Single acting. Basic type

4-M4
(Thread for mounting attachment)

M5
(Finger closing port) *

M5
(Finger opening port) *

$10_{-0.05}^{0}$

5 9

15

10

23

ø4H9 $_{0}^{+0.030}$ depth 4

7.5±0.02

4-M5 thread depth 10 (Mounting thread)
Prepared hole dia. 4.3 through (Mounting hole)

$8_{-0.1}^{0}$

50

30

16.8±0.02

32

42

When open 26.3 $_{-0.2}^{+2.2}$

When closed 16.3 $_{-0.7}^{0}$

20

9.5

29

52.8

84.8

ø21H9 $_{0}^{+0.052}$ depth 3

18

27.6±0.05

2-M5 thread depth 10
(Mounting thread)

35

18.6

2-M5 thread depth 8
(Mounting thread)

Auto Switch Mounting Groove Dimensions

6.2

5

ø4

9

14

2.1

Auto switch
mounting groove
(For D-Y□)

Auto switch
mounting groove
(For D-F□,
D-M9□(V))

Note) When using D-Y59, D-Y69 and D-Y7 type auto
switches, through-hole mounting is not possible.

* For single action, the port on one side
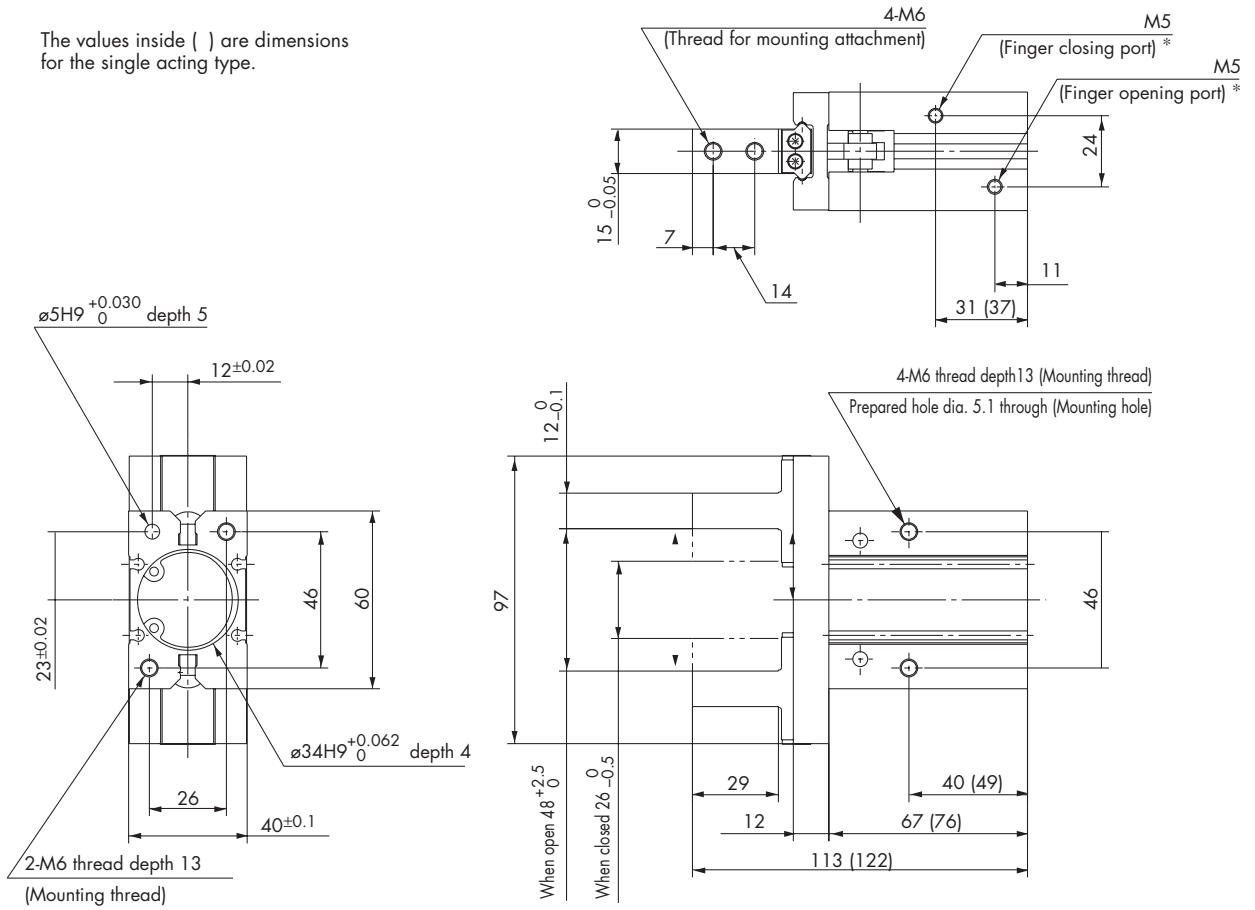is a breathing hole.

Finger Position/Narrow Type

MHZ2-20□N

When open 17.2 $_{0}^{+2.2}$

When closed 7.2 $_{-0.4}^{0}$

Grippers
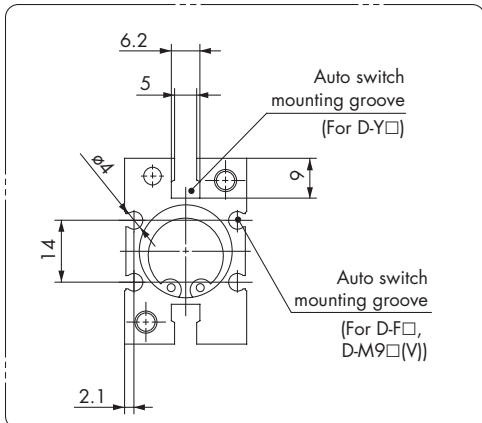
Dimensions: MHZ2-25□ Double acting/Single acting. Basic type
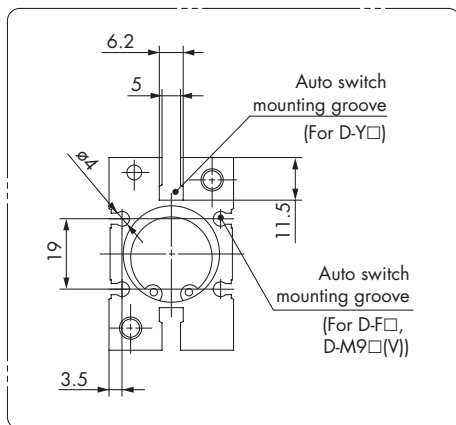
Grippers

4-M5
(Thread for mounting attachment)

M5 (Finger closing port) *

M5
(Finger opening port) *

$12\,^{0}_{-0.05}$

6   12

20

10.7

23.5

ø4H9 $^{+0.030}_{0}$ depth 4

10±0.02

21.8±0.02

40

52

22

ø26H9 $^{+0.052}_{0}$ depth 3.5

33.6±0.05

2-M6 thread depth 12
(Mounting thread)

$10\,^{0}_{-0.1}$

4-M6 thread depth 12 (Mounting thread)
Prepared hole dia. 5.1 through (Mounting hole) Note)

63

36

When open 33.3 $^{+2.5}_{-0.2}$

When closed 19.3 $^{0}_{-0.8}$

25

11

63.6

30

102.7

36.5

22

2-M6 thread depth 10
(Mounting thread)

Auto Switch Mounting Groove Dimensions

6.2

5

ø4

Auto switch
mounting groove
(For D-Y□)

11.5

19

Auto switch
mounting groove
(For D-F□,
D-M9□(V))

3.5

Note) When using D-Y59, D-Y69 and D-Y7 type auto
switches, through-hole mounting is not possible.

* For single action, the port on one side
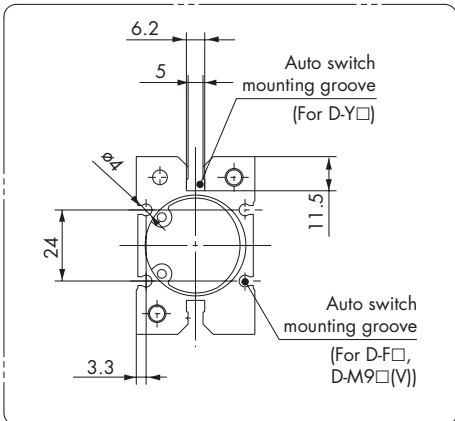 is a breathing hole.

Finger Position/Narrow Type

MHZ2-25□N

When open 22.8 $^{+2.5}_{0}$

When closed 8.8 $^{0}_{-0.4}$
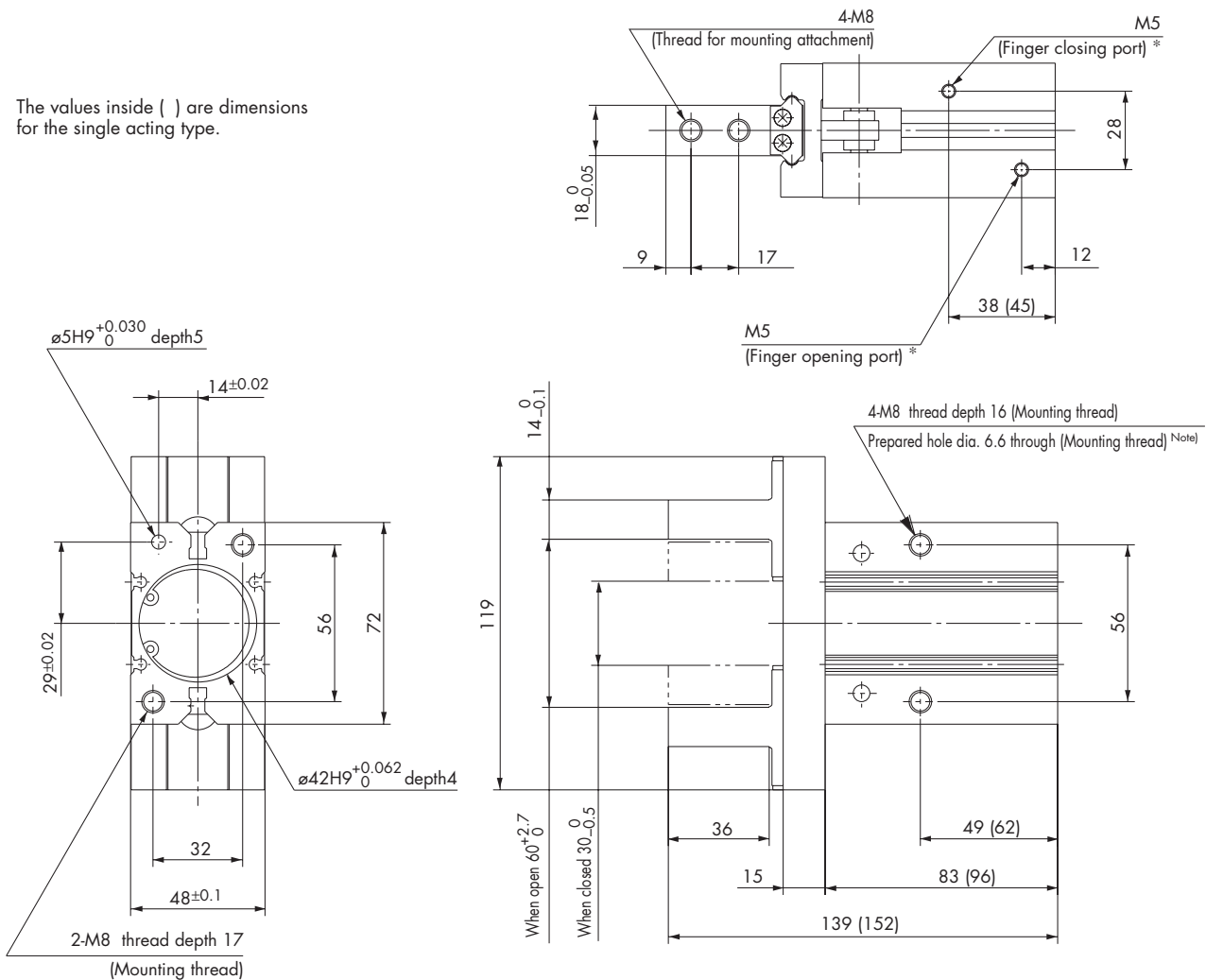
Grippers
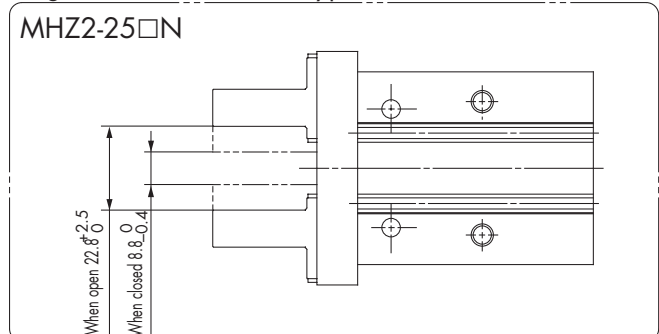
Dimensions: MHZ2-32□ Double acting/Single acting. Basic type

The values inside ( ) are dimensions for the single acting type.

4-M6
(Thread for mounting attachment)

M5
(Finger closing port) *

M5
(Finger opening port) *

$15\ _{-0.05}^{\ 0}$

24

7

14

11

31 (37)

ø5H9 $_0^{+0.030}$ depth 5

12±0.02

4-M6 thread depth13 (Mounting thread)
Prepared hole dia. 5.1 through (Mounting hole)

$12\ _{-0.1}^{\ 0}$

46

60

97

46

23±0.02

ø34H9 $_0^{+0.062}$ depth 4

26

40±0.1

2-M6 thread depth 13

(Mounting thread)

When open 48 $_0^{+2.5}$

When closed 26 $_{-0.5}^{\ 0}$

29

12

40 (49)

67 (76)

113 (122)

48 (57)

26

2-M6 thread depth 10

(Mounting thread)

Auto Switch Mounting Groove Dimensions

6.2

5

Auto switch
mounting groove
(For D-Y□)

ø4

11.5

24

Auto switch
mounting groove
(For D-F□,
D-M9□(V))

3.3

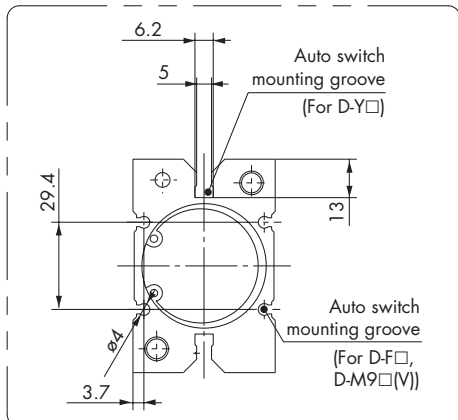Note) When using D-Y59, D-Y69 and D-Y7 type auto switches, through-hole mounting is not possible.
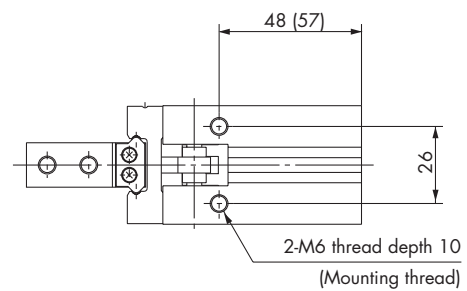
* For single action, the port on one side is a breathing hole.

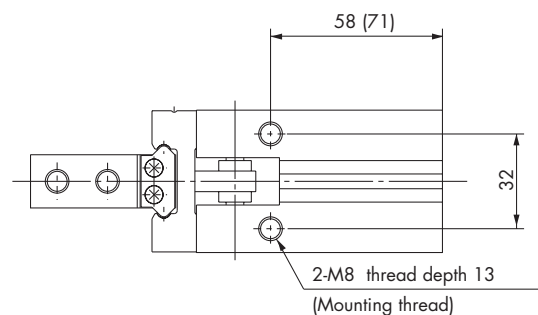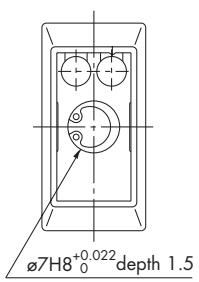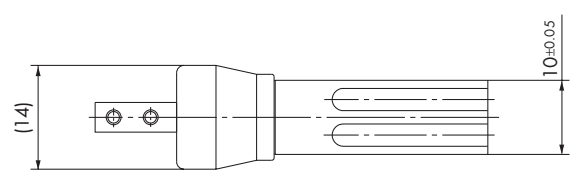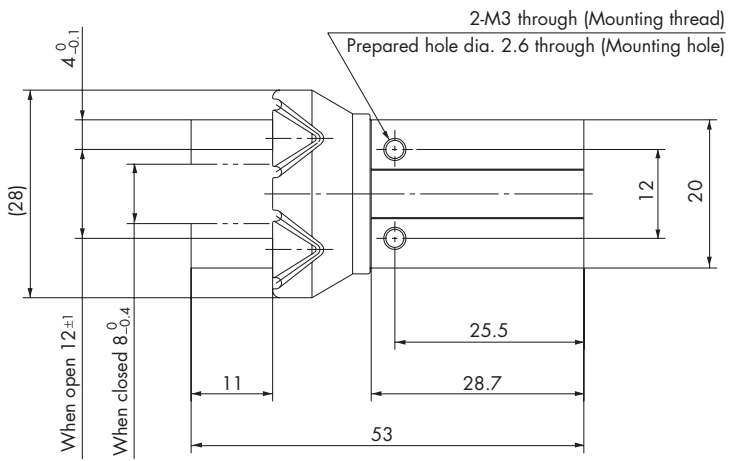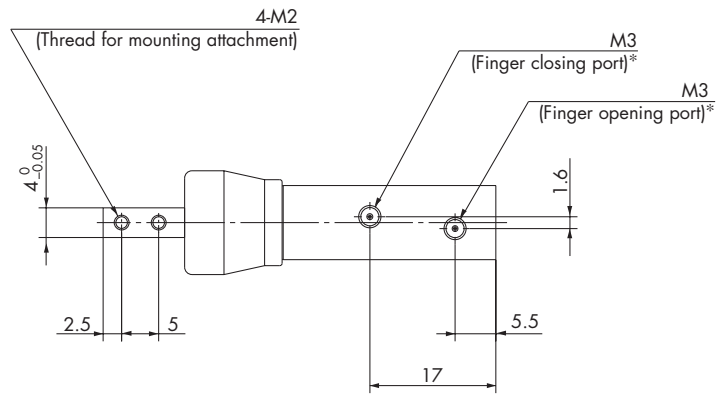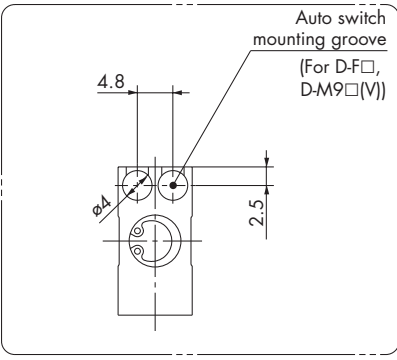**Dimensions:** MHZ2-40☐ Double acting/Single acting. Basic type

The values inside ( ) are dimensions for the single acting type.

4-M8
(Thread for mounting attachment)

M5
(Finger closing port) *

18 0 −0.05

9

17

28

38 (45)

12

M5
(Finger opening port) *

ø5H9 +0.030 0 depth5

14±0.02

14 0 −0.1

4-M8 thread depth 16 (Mounting thread)

Prepared hole dia. 6.6 through (Mounting thread) Note)

29±0.02

56

72

119

56

ø42H9 +0.062 0 depth4

32

48±0.1

2-M8 thread depth 17
(Mounting thread)

When open 60 +2.7 0

When closed 30 0 −0.5

36

15

49 (62)

83 (96)

139 (152)

58 (71)

32

2-M8 thread depth 13
(Mounting thread)

Auto Switch Mounting Groove Dimensions

6.2

5

Auto switch mounting groove
(For D-Y☐)
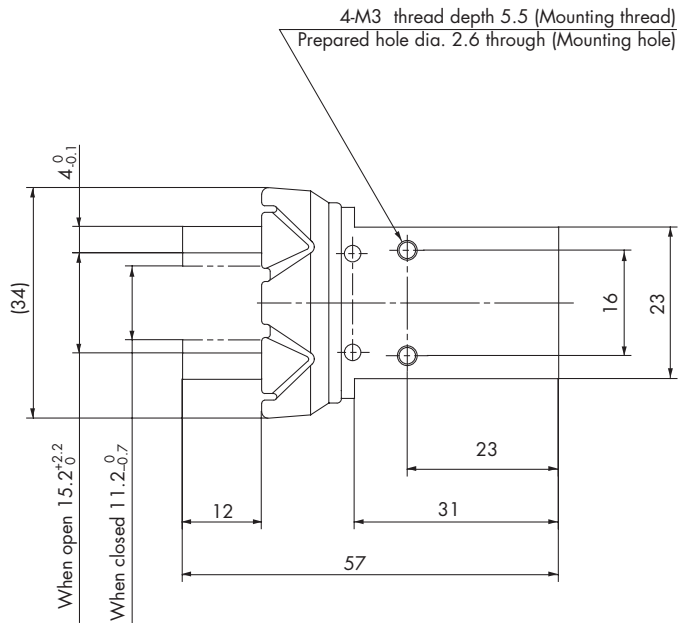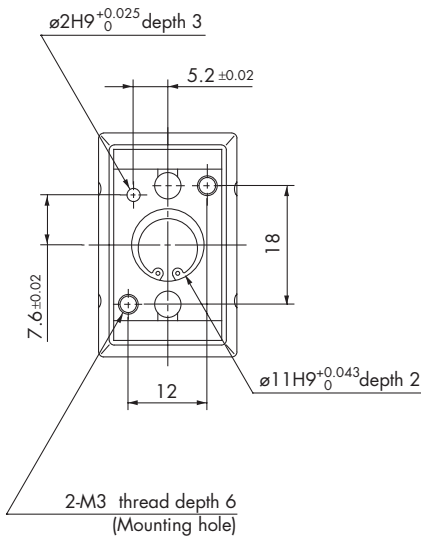
29.4

13

ø4

3.7

Auto switch mounting groove
(For D-F☐, D-M9☐(V))

* For single action, the port on one side is a breathing hole.

Note) When using D-Y59, D-Y69 and D-Y7 type auto switches, through-hole mounting is not possible.

Grippers

Grippers

Dimensions: MHZJ2-6□ Double acting/Single acting. Basic type

With Dust Cover

4-M2
(Thread for mounting attachment)

M3
(Finger closing port)*

M3
(Finger opening port)*

$4_{-0.05}^{0}$

1.6

2.5

5

5.5

17

$4_{-0.1}^{0}$

2-M3 through (Mounting thread)
Prepared hole dia. 2.6 through (Mounting hole)

(28)

When open 12±1

When closed $8_{-0.4}^{0}$

12

20

25.5

11

28.7

53

ø7H8$_{0}^{+0.022}$depth 1.5

(14)

10±0.05

Auto Switch Mounting Groove Dimensions
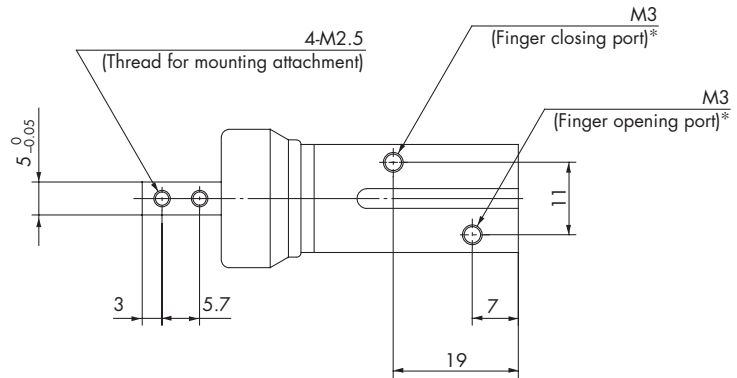
Auto switch
mounting groove
(For D-F□,
D-M9□(V))

4.8
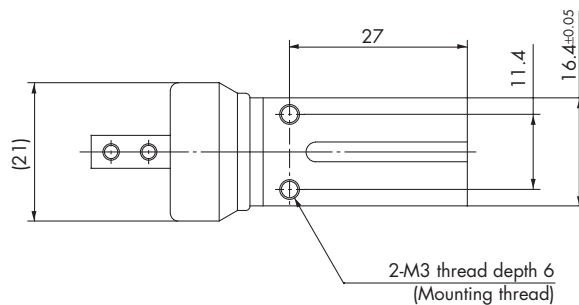
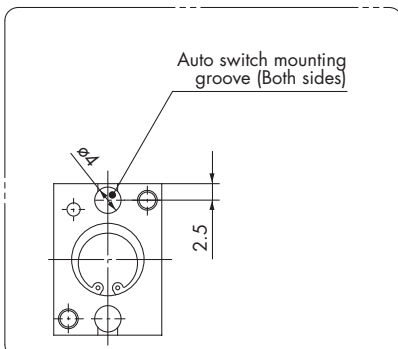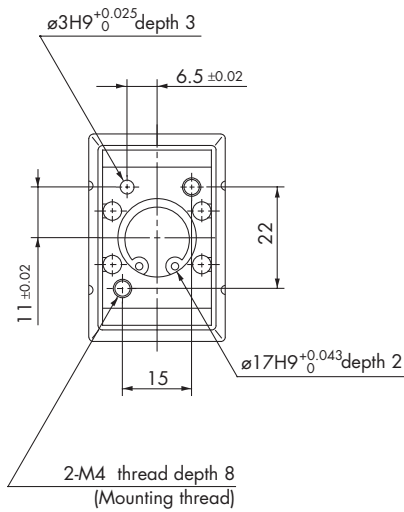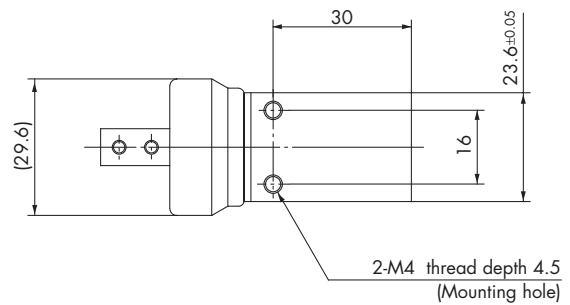ø4

2.5

* For single action, the port on one side is a breathing hole.

Dimensions: MHZJ2-10☐Double acting/Single acting. Basic type
With Dust Cover

4-M2.5
(Thread for mounting attachment)

M3
(Finger closing port)*

M3
(Finger opening port)*

$5{}_{-0.05}^{0}$

11

3   5.7

7

19

Grippers

4-M3 thread depth 5.5 (Mounting thread)
Prepared hole dia. 2.6 through (Mounting hole)

ø2H9$_{0}^{+0.025}$depth 3

5.2 ±0.02

18

7.6 ±0.02

12   ø11H9$_{0}^{+0.043}$depth 2

2-M3 thread depth 6
(Mounting hole)

$4{}_{-0.1}^{0}$

(34)

When open 15.2$_{0}^{+2.2}$

When closed 11.2$_{-0.7}^{0}$

12   31

16   23

23

57

27

(21)

11.4

16.4 ±0.05

2-M3 thread depth 6
(Mounting thread)

Auto Switch Mounting
Groove Dimensions

Auto switch mounting
groove (Both sides)

ø4

2.5

Note) When using auto switches, through-hole
mounting is not possible.
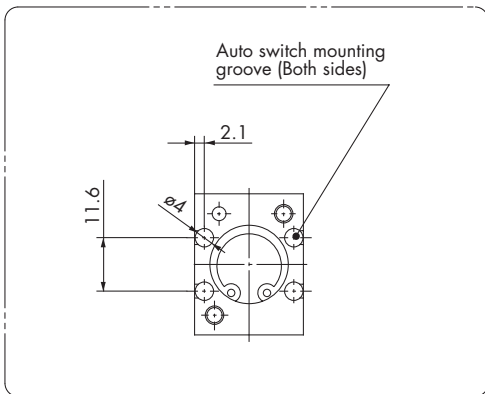
∗ For single action, the port on one side is a breathing hole.

Dimensions: MHZJ2-16□ Double acting/Single acting. Basic type
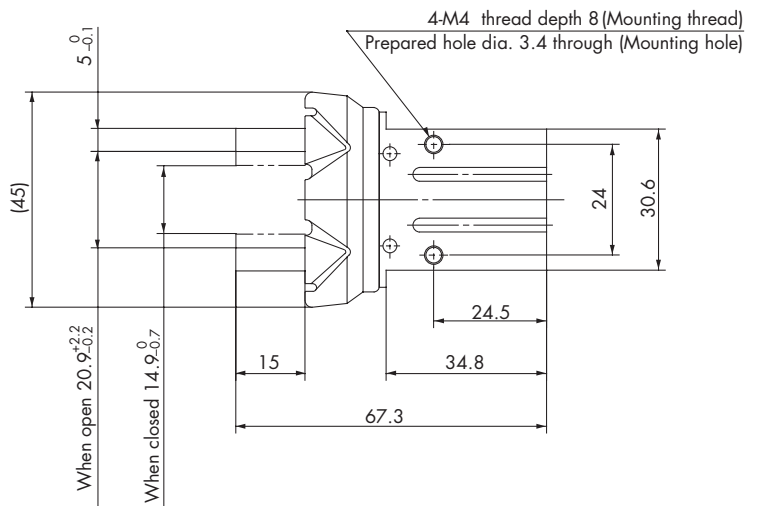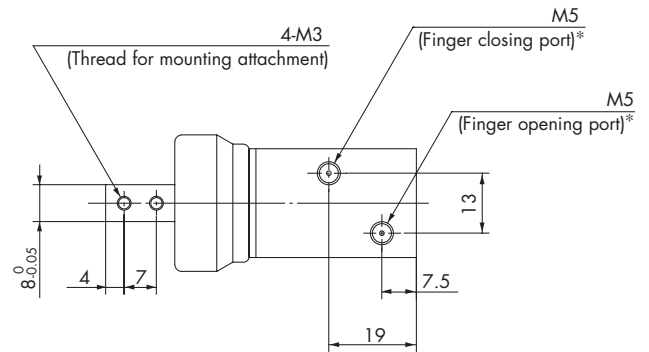
With Dust Cover

4-M3
(Thread for mounting attachment)

M5
(Finger closing port)*

M5
(Finger opening port)*

13

$8_{-0.05}^{0}$

4 7

7.5

19

ø3H9$_{0}^{+0.025}$depth 3

6.5 ±0.02

4-M4 thread depth 8 (Mounting thread)
Prepared hole dia. 3.4 through (Mounting hole)

22

11 ±0.02

24

30.6

$5_{-0.1}^{0}$

(45)

ø17H9$_{0}^{+0.043}$depth 2

15

When open 20.9$_{-0.2}^{+2.2}$

When closed 14.9$_{-0.7}^{0}$

24.5

15

34.8

67.3

2-M4 thread depth 8
(Mounting thread)
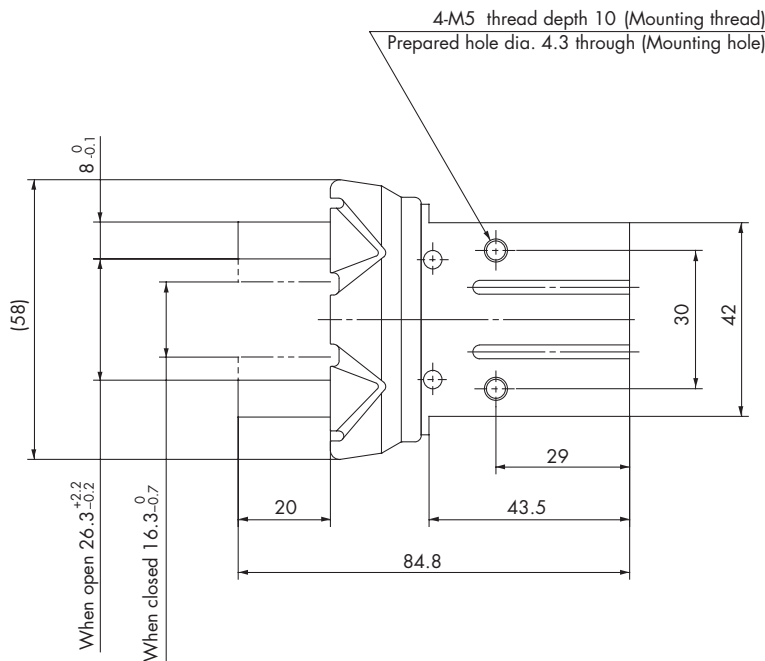
30

23.6±0.05

(29.6)

16

2-M4 thread depth 4.5
(Mounting hole)

**Auto Switch Mounting
Groove Dimensions**

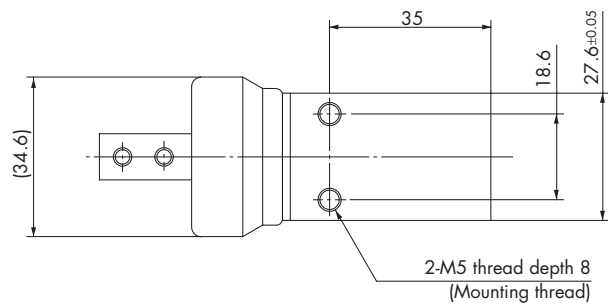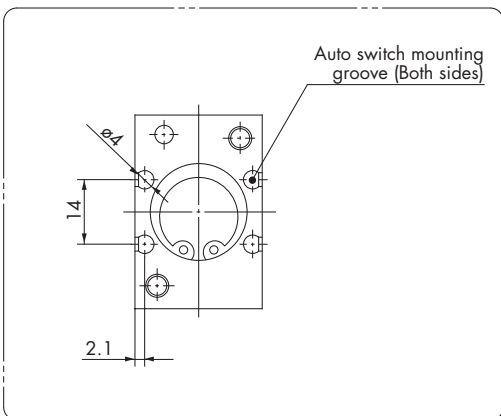Auto switch mounting
groove (Both sides)

2.1

11.6

ø4

∗ For single action, the port on one side is a breathing hole.

Grippers

Dimensions: MHZJ2-20□ Double acting/Single acting. Basic type
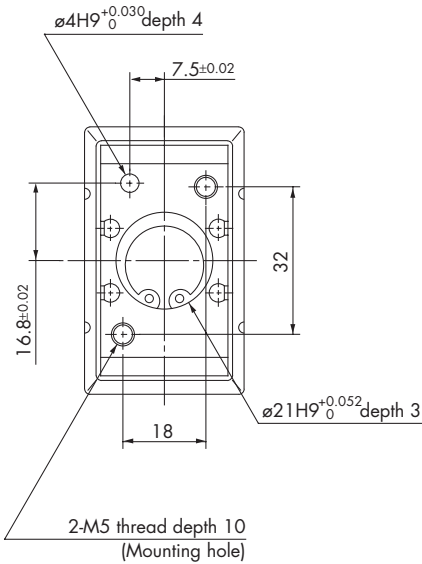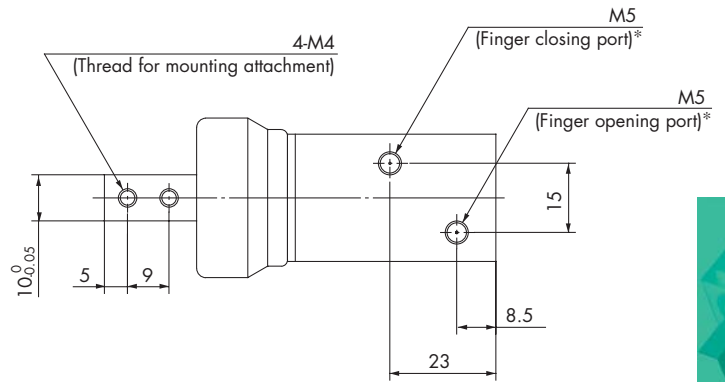
With Dust Cover

Grippers

M5
(Finger closing port)*

4-M4
(Thread for mounting attachment)

M5
(Finger opening port)*

$10_{-0.05}^{0}$

15

5   9

8.5

23

ø4H9$_{0}^{+0.030}$depth 4

7.5±0.02

4-M5 thread depth 10 (Mounting thread)
Prepared hole dia. 4.3 through (Mounting hole)

$8_{-0.1}^{0}$

(58)

32

16.8±0.02

30

42

18

ø21H9$_{0}^{+0.052}$depth 3

2-M5 thread depth 10
(Mounting hole)

When open 26.3$_{-0.2}^{+2.2}$

When closed 16.3$_{-0.7}^{0}$
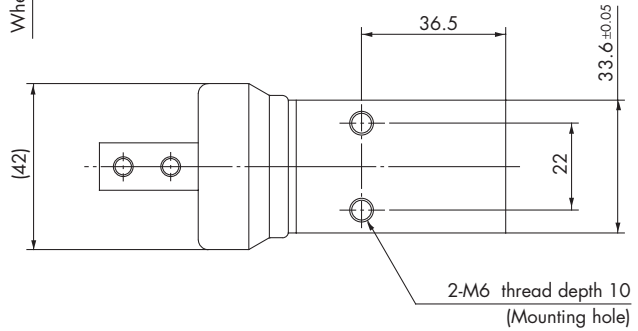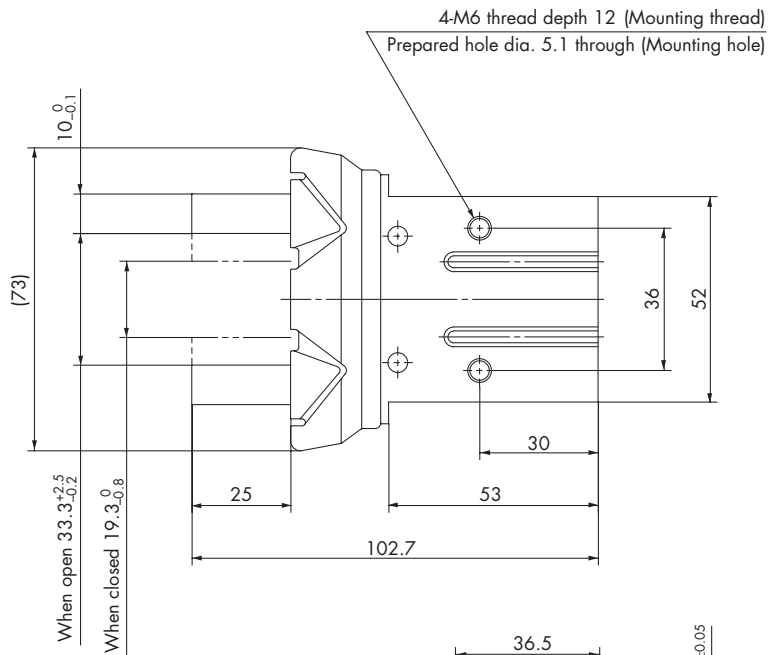
20

29

43.5

84.8

35

18.6

27.6±0.05

(34.6)

2-M5 thread depth 8
(Mounting thread)

Auto Switch Mounting Groove Dimensions

Auto switch mounting
groove (Both sides)

ø4

14

2.1

* For single action, the port on one side is a breathing hole.

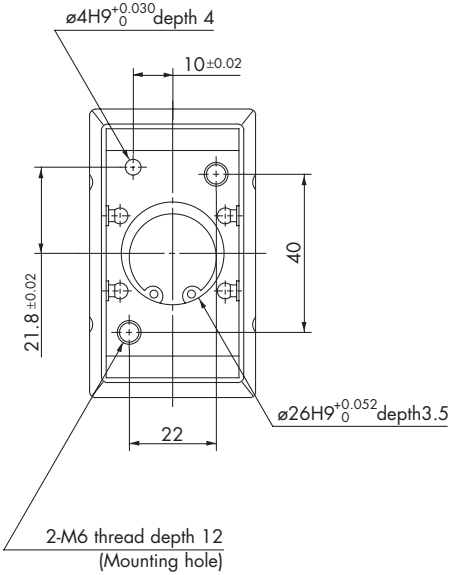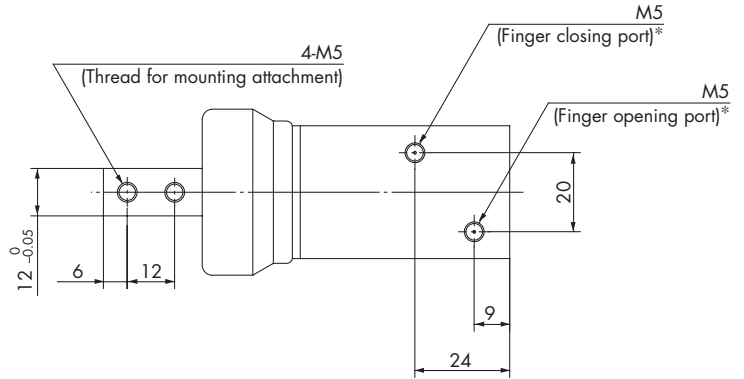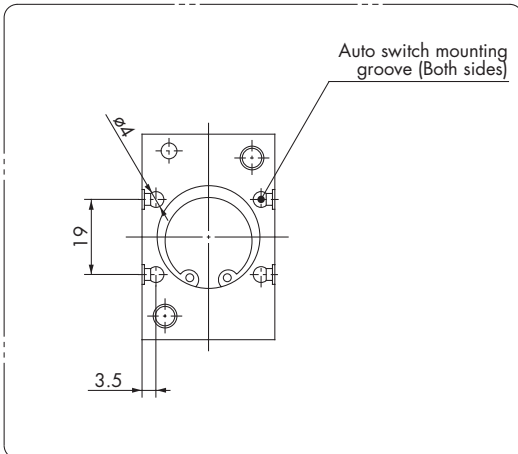**Dimensions:** MHZJ2-25□ Double acting/Single acting. Basic type

With Dust Cover

M5
(Finger closing port)*

4-M5
(Thread for mounting attachment)

M5
(Finger opening port)*

$12^{\ 0}_{-0.05}$

20

6 12

9

24

4-M6 thread depth 12 (Mounting thread)
Prepared hole dia. 5.1 through (Mounting hole)

ø4H9$^{+0.030}_{0}$depth 4

10±0.02

40

$10^{\ 0}_{-0.1}$

(73)

21.8±0.02

ø26H9$^{+0.052}_{0}$depth3.5

22

52

36

30

25

53

102.7

When open 33.3$^{+2.5}_{-0.2}$

When closed 19.3$^{\ 0}_{-0.8}$

2-M6 thread depth 12
(Mounting hole)

36.5

33.6±0.05

(42)

22

2-M6 thread depth 10
(Mounting hole)

**Auto Switch Mounting
Groove Dimensions**

Auto switch mounting
groove (Both sides)

ø4

19

3.5

* For single action, the port on one side is a breathing hole.

Grippers