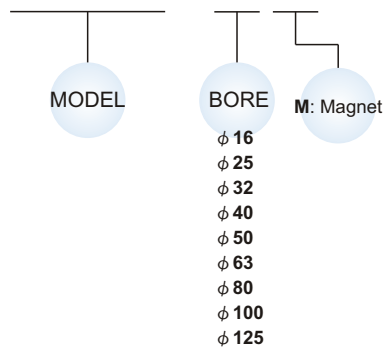


### Features

- Through holes in body enable simple mounting.
- Body manufactured from high tensile, anodised aluminium giving good resistance to corrosion.
- Available with sensors.

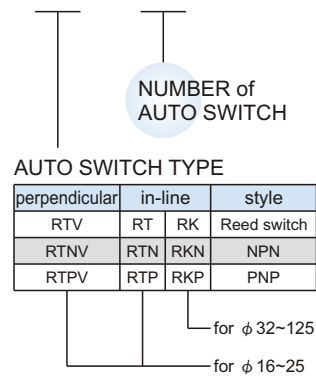
### Order example

## MCHG2 – 16 M



### Auto switch type

## RT × 1



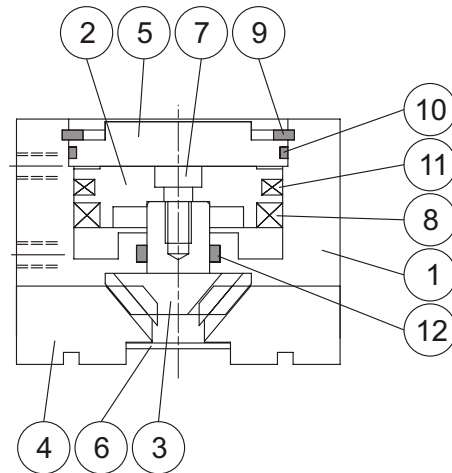
※ RT specification, please refer to page V-18.

### Specification

| Model   | MCHG2-16                | MCHG2-25 | MCHG2-32 | MCHG2-40 | MCHG2-50  | MCHG2-63 | MCHG2-80 | MCHG2-100 | MCHG2-125 |           |
|---|-------------------------|----------|----------|----------|-----------|----------|----------|-----------|-----------|-----------|
| Acting type                                   | Double acting           |          |          |          |           |          |          |           |           |           |
| Tube I.D. (mm)                                | 16                      | 25       | 32       | 40       | 50        | 63       | 80       | 100       | 125       |           |
| Stroke (mm)                                   | 4                       | 6        | 8        | 8        | 12        | 16       | 20       | 24        | 32        |           |
| Medium  | Air                     |          |          |          |           |          |          |           |           |           |
| Operating pressure (MPa)                      | 0.2~0.6                 |          |          | 0.1~0.6  |           |          |          |           |           |           |
| Ambient temperature                           | -10~+60°C (No freezing) |          |          |          |           |          |          |           |           |           |
| Repeatability                                 | ±0.01 mm                |          |          |          |           |          |          |           |           |           |
| Max.operating frequency(c.p.m)                | 120                     |          | 60       |          |           |          | 30       |           |           |           |
| Lubrication                                   | Not required            |          |          |          |           |          |          |           |           |           |
| ※Effective gripping force N(lbf) at (0.5 MPa) | External                | 14(3.1)  | 42(9.4)  | 74(16.6) | 118(26.5) | 187(42)  | 335(75)  | 500(112)  | 750(169)  | 1270(285) |
|   | Internal                | 16(3.6)  | 47(10.6) | 82(18.4) | 130(29)   | 204(46)  | 359(81)  | 525(118)  | 780(175)  | 1320(297) |
| Weight (g)                                    | 80                      | 150      | 240      | 400      | 540       | 1020     | 1880     | 3300      | 6200      |           |

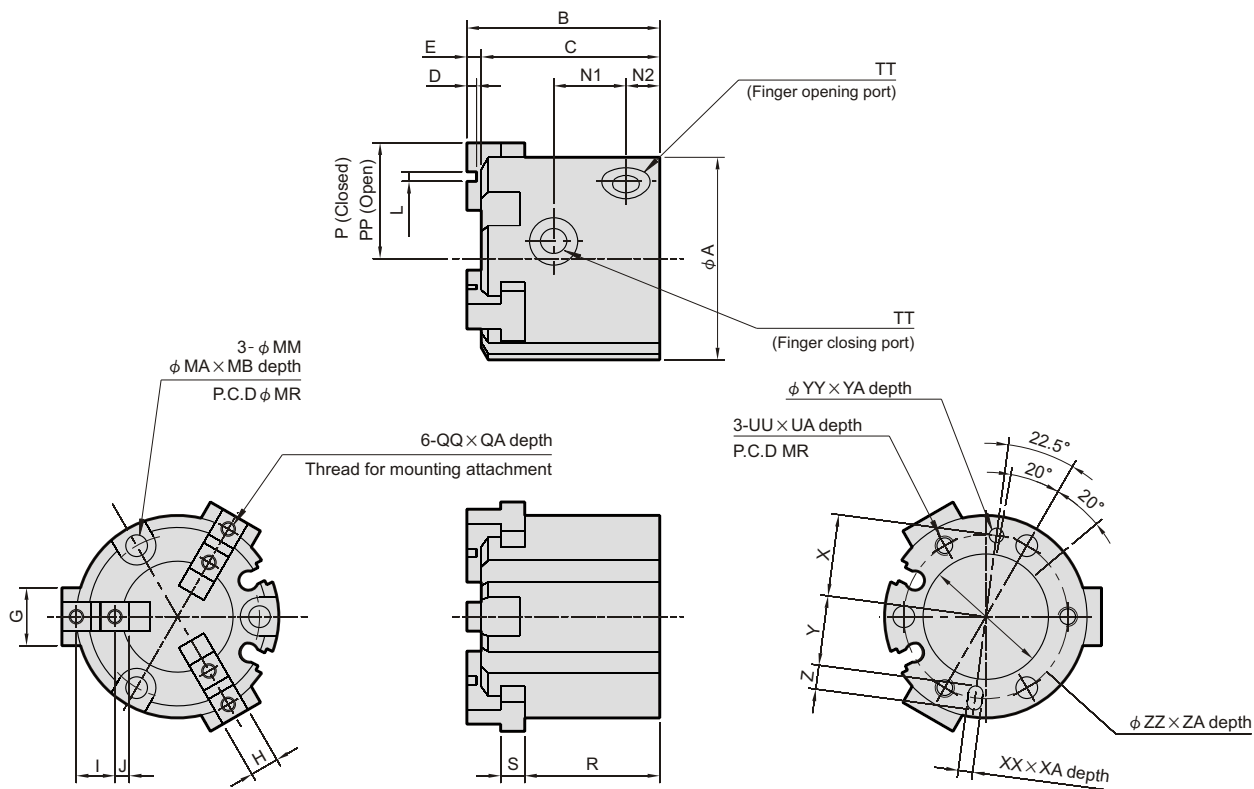
※ Values for 16 to 25 are with gripping point L=20mm, for 32 to 63 with gripping point L=30mm, and for 80 to 125 with gripping point L=50mm, Refer to the "Effective Holding force" data on pages 5 through 6 for the gripping force at each gripping position.

- Open and closed diameter values apply for external gripping of work pieces.



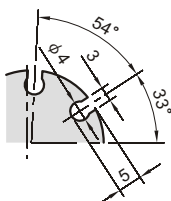
### Material

| No. | Part name      | Material        |
|-----|----------------|-----------------|
| 1   | Body           | Aluminum alloy  |
| 2   | Piston         | Aluminum alloy  |
| 3   | Cam            | Carbon steel    |
| 4   | Finger         | Carbon steel    |
| 5   | Cap            | Aluminum alloy  |
| 6   | End plate      | Stainless steel |
| 7   | Piston bolt    | Stainless steel |
| 8   | Magnet ring    | Magnet material |
| 9   | Snap ring      | Carbon steel    |
| 10  | Cover ring     | NBR             |
| 11  | Piston packing | NBR             |
| 12  | Rod packing    | NBR             |

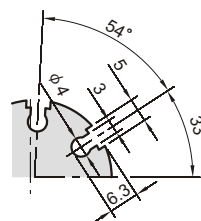


### Auto switch mounting groove position

$\phi 16$



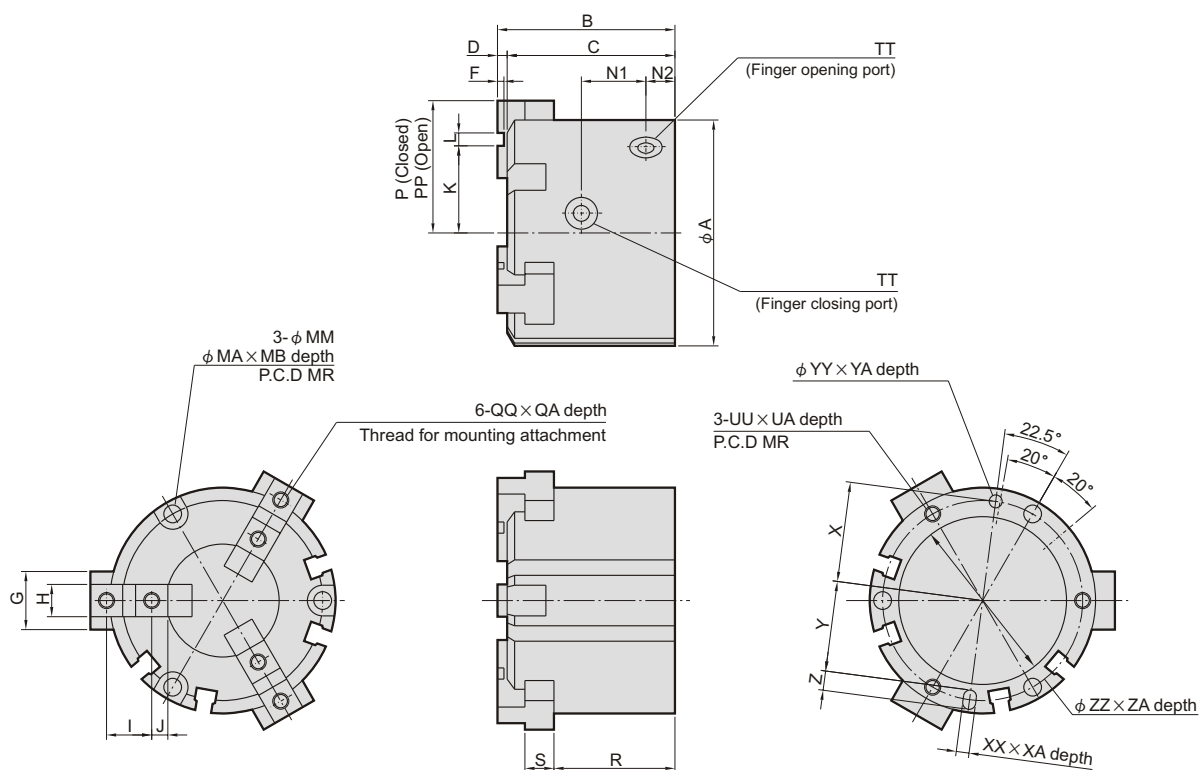
$\phi 25$



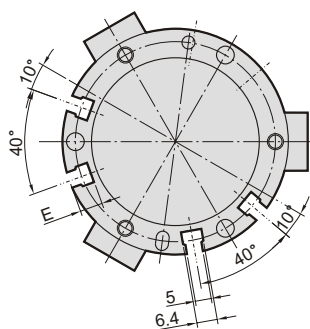
| Code<br>Tube I.D. | A  | B  | C  | D | E | G  | H                                   | I | J | L                                   | MA | MB | MM  | MR | N1 | N2 | P  | PP   | QA | QQ              | R  | S | TT              | UA  |
|-------------------|----|----|----|---|---|----|-------------------------------------|---|---|-------------------------------------|----|----|-----|----|----|----|----|------|----|-----------------|----|---|-----------------|-----|
| 16                | 30 | 35 | 32 | 2 | 3 | 8  | 5h9 <sup>+0</sup> <sub>-0.030</sub> | 6 | 2 | 2H9 <sup>+0.025</sup> <sub>-0</sub> | 6  | 8  | 3.4 | 25 | 11 | 7  | 15 | 17.5 | 5  | M3 $\times$ 0.5 | 25 | 4 | M3 $\times$ 0.5 | 4.5 |
| 25                | 42 | 40 | 37 | 2 | 3 | 12 | 6h9 <sup>+0</sup> <sub>-0.030</sub> | 8 | 3 | 2H9 <sup>+0.025</sup> <sub>-0</sub> | 8  | 10 | 4.5 | 34 | 15 | 7  | 21 | 24   | 6  | M3 $\times$ 0.5 | 28 | 5 | M5 $\times$ 0.8 | 6   |

| Code<br>Tube I.D. | UU              | X    | XA | XX                                  | Y    | YA | YY                                  | Z | ZA  | ZZ                                   |
|-------------------|-----------------|------|----|-------------------------------------|------|----|-------------------------------------|---|-----|--------------------------------------|
| 16                | M3 $\times$ 0.5 | 12.5 | 2  | 2H9 <sup>+0.025</sup> <sub>-0</sub> | 11   | 2  | 2H9 <sup>+0.025</sup> <sub>-0</sub> | 3 | 1.5 | 17H9 <sup>+0.043</sup> <sub>-0</sub> |
| 25                | M4 $\times$ 0.7 | 17   | 3  | 2H9 <sup>+0.025</sup> <sub>-0</sub> | 14.5 | 3  | 3H9 <sup>+0.025</sup> <sub>-0</sub> | 5 | 1.5 | 26H9 <sup>+0.052</sup> <sub>-0</sub> |

## LOWER HEIGHT of THREE JAW GRIPPERS



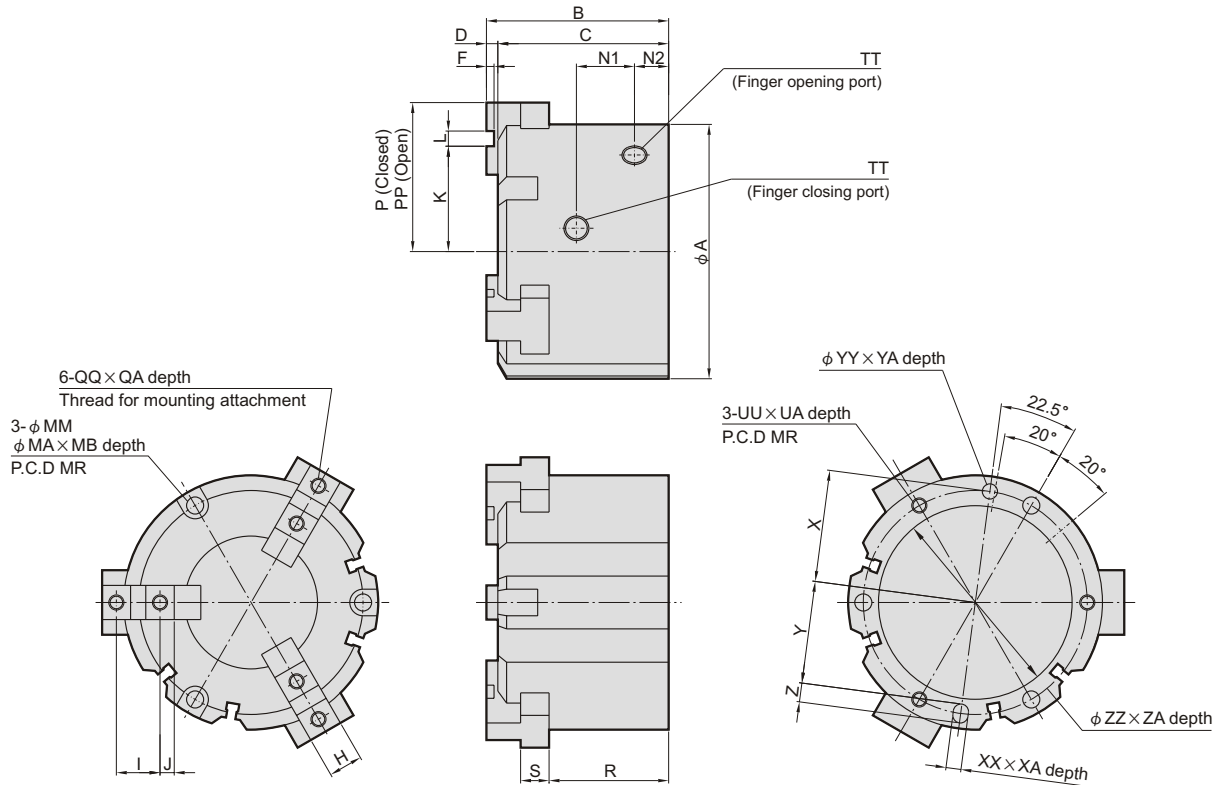
### Auto switch mounting groove position



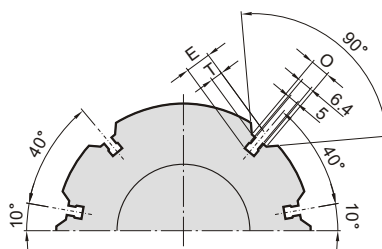
| Code<br>Tube I.D. | A   | B  | C  | D | E   | F | G  | H                                    | I  | J   | K    | L                                   | MA  | MB | MM  | MR | N1 | N2   | P    | PP   | QA | QQ     | R    | S  | TT     |
|-------------------|-----|----|----|---|-----|---|----|--------------------------------------|----|-----|------|-------------------------------------|-----|----|-----|----|----|------|------|------|----|--------|------|----|--------|
| 32                | 52  | 44 | 41 | 3 | 6   | 2 | 14 | 8h9 <sup>+0</sup> <sub>-0.036</sub>  | 11 | 4.5 | 17   | 2H9 <sup>+0.025</sup> <sub>-0</sub> | 8   | 9  | 4.5 | 44 | 16 | 8    | 28   | 32   | 8  | M4×0.7 | 30.5 | 6  | M5×0.8 |
| 40                | 62  | 47 | 44 | 3 | 8   | 2 | 16 | 8h9 <sup>+0</sup> <sub>-0.036</sub>  | 12 | 4.5 | 19   | 3H9 <sup>+0.025</sup> <sub>-0</sub> | 9.5 | 9  | 5.5 | 53 | 17 | 9    | 31   | 35   | 8  | M4×0.7 | 32   | 7  | M5×0.8 |
| 50                | 70  | 55 | 52 | 3 | 7   | 2 | 18 | 10h9 <sup>+0</sup> <sub>-0.036</sub> | 14 | 5   | 21   | 4H9 <sup>+0.030</sup> <sub>-0</sub> | 9.5 | 12 | 5.5 | 62 | 20 | 9    | 35   | 41   | 10 | M5×0.8 | 37.5 | 9  | M5×0.8 |
| 63                | 86  | 66 | 62 | 4 | 7.5 | 3 | 24 | 12h9 <sup>+0</sup> <sub>-0.043</sub> | 17 | 5.5 | 26   | 6H9 <sup>+0.030</sup> <sub>-0</sub> | 11  | 14 | 6.6 | 76 | 22 | 12   | 43   | 51   | 10 | M5×0.8 | 44   | 11 | M5×0.8 |
| 80                | 106 | 82 | 77 | 5 | 9   | 4 | 28 | 14h9 <sup>+0</sup> <sub>-0.043</sub> | 20 | 6   | 33.5 | 8H9 <sup>+0.036</sup> <sub>-0</sub> | 11  | 19 | 6.6 | 95 | 27 | 13.5 | 53.5 | 63.5 | 12 | M6×1   | 56   | 12 | Rc1/8  |

| Code<br>Tube I.D. | UA  | UU     | X    | XA | XX                                  | Y    | YY                                  | Z | ZA  | ZZ                                   |
|-------------------|-----|--------|------|----|-------------------------------------|------|-------------------------------------|---|-----|--------------------------------------|
| 32                | 6   | M4×0.7 | 22   | 3  | 3H9 <sup>+0.025</sup> <sub>-0</sub> | 19.5 | 3H9 <sup>+0.025</sup> <sub>-0</sub> | 5 | 2   | 34H9 <sup>+0.062</sup> <sub>-0</sub> |
| 40                | 7.5 | M5×0.8 | 26.5 | 4  | 4H9 <sup>+0.030</sup> <sub>-0</sub> | 23.5 | 4H9 <sup>+0.030</sup> <sub>-0</sub> | 6 | 2   | 42H9 <sup>+0.062</sup> <sub>-0</sub> |
| 50                | 10  | M5×0.8 | 31   | 4  | 4H9 <sup>+0.030</sup> <sub>-0</sub> | 28   | 4H9 <sup>+0.030</sup> <sub>-0</sub> | 6 | 2   | 52H9 <sup>+0.074</sup> <sub>-0</sub> |
| 63                | 9   | M6×1   | 38   | 5  | 5H9 <sup>+0.030</sup> <sub>-0</sub> | 34.5 | 5H9 <sup>+0.030</sup> <sub>-0</sub> | 7 | 2.5 | 65H9 <sup>+0.074</sup> <sub>-0</sub> |
| 80                | 12  | M6×1   | 47.5 | 6  | 6H9 <sup>+0.030</sup> <sub>-0</sub> | 43.5 | 6H9 <sup>+0.030</sup> <sub>-0</sub> | 8 | 3   | 82H9 <sup>+0.087</sup> <sub>-0</sub> |

## LOWER HEIGHT of THREE JAW GRIPPERS



### Auto switch mounting groove position (4 places)



| Code<br>Tube I.D. | A   | B   | C   | D | E  | F | G  | H                                    | I  | J    | K  | L                                    | MA   | MB | MM | MR  | N1   | N2   | O  | P  | PP | QA | QQ        | R  | S  | T |
|-------------------|-----|-----|-----|---|----|---|----|--------------------------------------|----|------|----|--------------------------------------|------|----|----|-----|------|------|----|----|----|----|-----------|----|----|---|
| 100               | 134 | 96  | 90  | 6 | 13 | 4 | 34 | 18h9 <sup>+0</sup> <sub>-0.043</sub> | 23 | 7.5  | 43 | 8H9 <sup>+0.036</sup> <sub>-0</sub>  | 14   | 21 | 9  | 118 | 30.6 | 18   | 10 | 66 | 78 | 16 | M8 x 1.25 | 63 | 15 | 5 |
| 125               | 166 | 122 | 114 | 8 | 15 | 6 | 40 | 22h9 <sup>+0</sup> <sub>-0.052</sub> | 31 | 10.5 | 50 | 10H9 <sup>+0.036</sup> <sub>-0</sub> | 17.5 | 34 | 11 | 148 | 38   | 23.5 | 12 | 82 | 98 | 20 | M10 x 1.5 | 84 | 18 | 7 |

| Code<br>Tube I.D. | TT    | UA | UU        | X  | XA | XX                                   | Y  | YA | YY                                   | Z  | ZA | ZZ                                    |
|-------------------|-------|----|-----------|----|----|--------------------------------------|----|----|--------------------------------------|----|----|---------------------------------------|
| 100               | Rc1/4 | 16 | M8 x 1.25 | 59 | 6  | 8H9 <sup>+0.036</sup> <sub>-0</sub>  | 54 | 6  | 8H9 <sup>+0.036</sup> <sub>-0</sub>  | 10 | 4  | 102H9 <sup>+0.087</sup> <sub>-0</sub> |
| 125               | Rc3/8 | 20 | M10 x 1.5 | 74 | 8  | 10H9 <sup>+0.036</sup> <sub>-0</sub> | 68 | 8  | 10H9 <sup>+0.036</sup> <sub>-0</sub> | 12 | 6  | 130H9 <sup>+0.100</sup> <sub>-0</sub> |