



### Features:

#### ■ Multi-specification:

There are nine specifications: tube I.D.  $\phi 20\sim 125$ . Application to hold state in the stroke range.

#### ■ Brake function:

The brake function is bi-directional. It can hold on specific position by sensor switch.

#### ■ Non-lubrication:

Designs of oil-filled alloy. Special housing and bushing provide the needed self-lubrication of piston rod.

#### ■ High quality-long service life:

Hard anodized aluminum cylinder tubes and stainless steel tubes resist corrosion and abrasion.

#### ■ ISO-VDMA standard specification:

Conformance to ISO-6431 & VDMA-24562 specification.

Unified design, most parts of each type are interchangeable among each other.

#### ■ Cylinder mountings:

Available with a comprehensive selection of mountings for fixed or flexible installation.

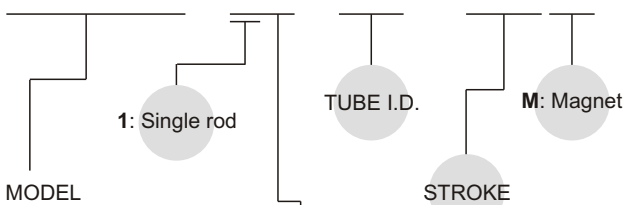
### Table for standard stroke:

| Tube I.D.         | Stroke (mm)                                             |
|-------------------|---------------------------------------------------------|
| $\phi 20,25$      | 15,25,50,75,100,125,150,175,200,250,300,350,400,450,500 |
| $\phi 32,40$      | 50,75,100,125,150,175,200,250,300,350,400,450,500       |
| $\phi 50,63$      | $\uparrow 600$                                          |
| $\phi 80,100,125$ | $\uparrow 600,700$                                      |

- Stroke out of specification is also available.
- Please consult us if stroke out of specification.

### Order example:

MCBQV2 – 11 – 40 – 100 M



| Model  | Tube I.D.             |
|--------|-----------------------|
| MCBBI  | $\phi 20, \phi 25$    |
| MCBQV2 | $\phi 32\sim\phi 100$ |
| MCBQI2 | $\phi 32\sim\phi 100$ |
| MCBQV  | $\phi 125$            |

#### STYLE:

| Code | Symbol                                                                              | Description                 |
|------|-------------------------------------------------------------------------------------|-----------------------------|
| 1 1  |  | Double acting / Male thread |

### Specification:

| Model                     | MCBBI                                        |      | MCBQI2 |      |      |      |      |      |
|---------------------------|----------------------------------------------|------|--------|------|------|------|------|------|
| Tube I.D. (mm)            | 20                                           | 25   | 32     | 40   | 50   | 63   | 80   | 100  |
| Medium                    | Air                                          |      |        |      |      |      |      |      |
| Operating pressure range  | 3~6 kgf/cm <sup>2</sup>                      |      |        |      |      |      |      |      |
| Proof pressure            | 15 kgf/cm <sup>2</sup>                       |      |        |      |      |      |      |      |
| Ambient temperature       | -5°C~+60°C (no freezing)                     |      |        |      |      |      |      |      |
| Min. working pressure     | 3 kgf/cm <sup>2</sup>                        |      |        |      |      |      |      |      |
| Locking mode              | Secure locking of piston rod in any position |      |        |      |      |      |      |      |
| Lock retention forces (N) | 490                                          | 490  | 790    | 1240 | 1930 | 3060 | 5400 | 7700 |
| Sensor switch             | RCA, RCM                                     |      | RCI    |      |      |      |      |      |
| Sensor switch (band)      | BA20                                         | BA25 | —      |      |      |      |      |      |
|                           | BM20                                         | BM25 | —      |      |      |      |      |      |

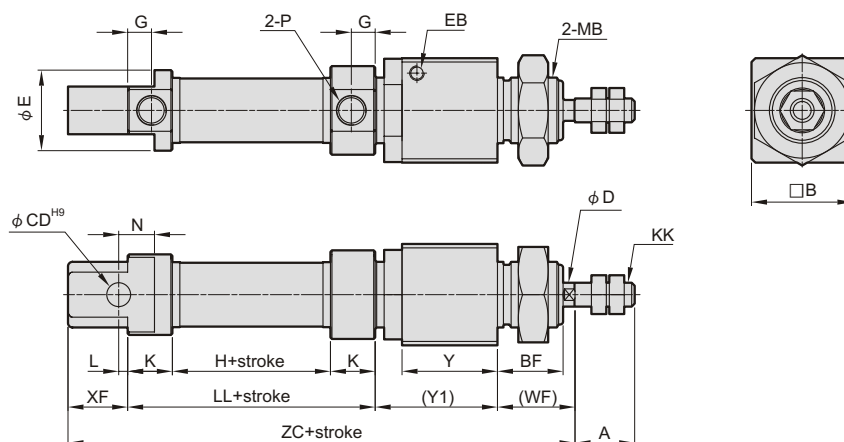
| Model                     | MCBQV2                                       |      |      |      |      |      | MCBQV |
|---------------------------|----------------------------------------------|------|------|------|------|------|-------|
| Tube I.D. (mm)            | 32                                           | 40   | 50   | 63   | 80   | 100  | 125   |
| Medium                    | Air                                          |      |      |      |      |      |       |
| Operating pressure range  | 3~6 kgf/cm <sup>2</sup>                      |      |      |      |      |      |       |
| Proof pressure            | 15 kgf/cm <sup>2</sup>                       |      |      |      |      |      |       |
| Ambient temperature       | -5°C~+60°C (no freezing)                     |      |      |      |      |      |       |
| Min. working pressure     | 3 kgf/cm <sup>2</sup>                        |      |      |      |      |      |       |
| Locking mode              | Secure locking of piston rod in any position |      |      |      |      |      |       |
| Lock retention forces (N) | 790                                          | 1240 | 1930 | 3060 | 5400 | 7700 | 12040 |
| Sensor switch             | RCA                                          |      |      |      |      |      |       |
| Sensor switch (holder)    | HV1                                          | HV2  | HV3  | HV4  |      |      |       |

# MCB\*\* Dimensions $\phi 20 \sim \phi 100$

## ROD LOCKING CYLINDERS

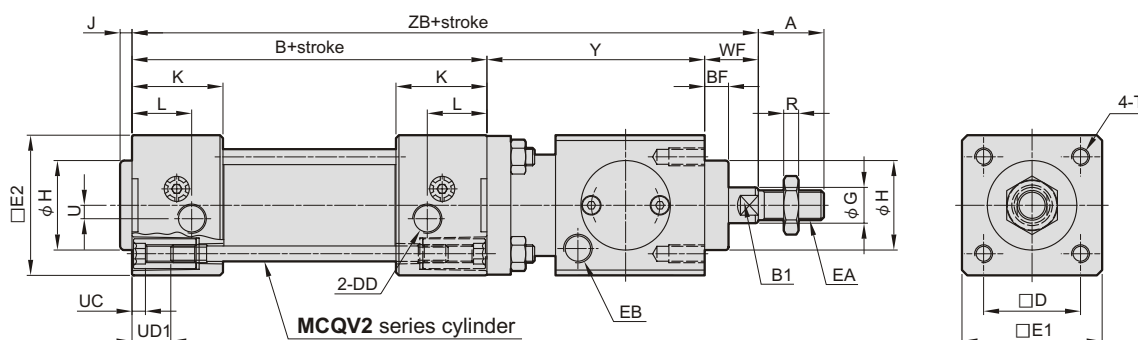


### MCBMI

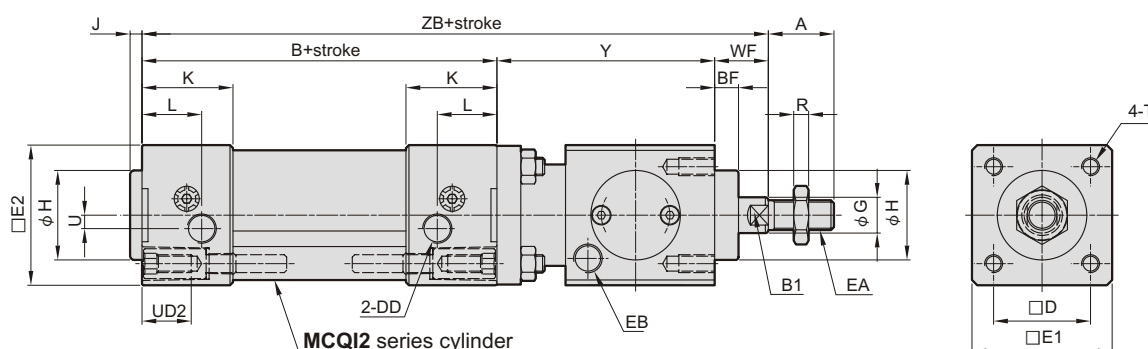


| Code<br>Tube I.D. | A  | B  | BF | CD | D  | E  | EB | G   | H  | K  | KK       | L | LL | MB      | N  | P     | WF | XF | Y  | Y1 | ZC  |
|-------------------|----|----|----|----|----|----|----|-----|----|----|----------|---|----|---------|----|-------|----|----|----|----|-----|
| 20                | 20 | 34 | 22 | 8  | 8  | 27 | M5 | 8   | 38 | 15 | M8×1.25  | 3 | 68 | M22×1.5 | 12 | G 1/8 | 26 | 20 | 32 | 43 | 157 |
| 25                | 22 | 34 | 22 | 8  | 10 | 27 | M5 | 7.5 | 37 | 15 | M10×1.25 | 9 | 67 | M22×1.5 | 12 | G 1/8 | 28 | 22 | 32 | 45 | 162 |

### MCBQV2



### MCBQI2



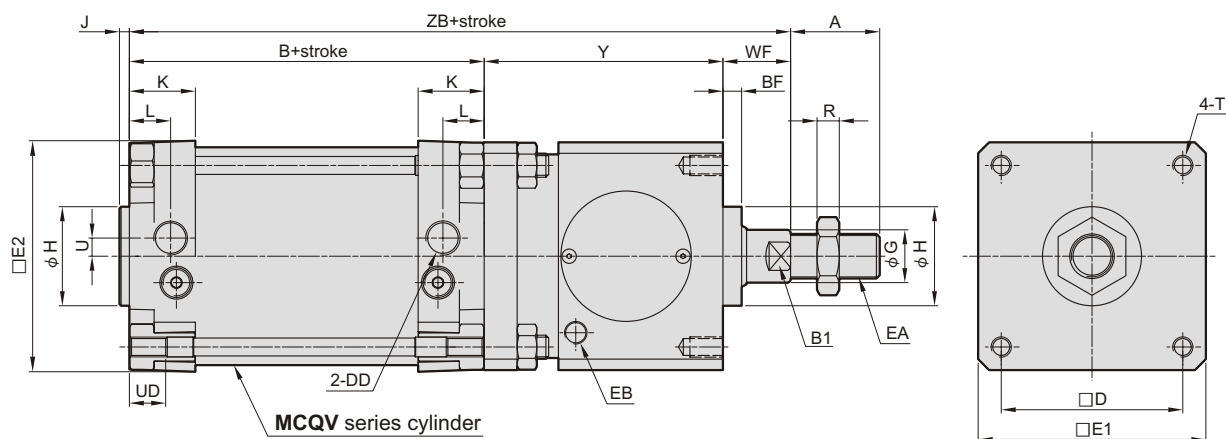
| Code<br>Tube I.D. | A  | B   | BF  | B1 | D    | DD    | E1  | E2  | EA       | EB    | G  | H  | J | K    | L    | R  | T       | U   | UC  | UD1 | UD2         | WF | Y   | ZB  |
|-------------------|----|-----|-----|----|------|-------|-----|-----|----------|-------|----|----|---|------|------|----|---------|-----|-----|-----|-------------|----|-----|-----|
| 32                | 22 | 94  | 7.5 | 10 | 32.5 | G 1/8 | 47  | 47  | M10×1.25 | G 1/8 | 12 | 30 | 4 | 30.5 | 20   | 5  | M6×12L  | 4.5 | 4.5 | 12  | M6×1.0×15L  | 18 | 60  | 172 |
| 40                | 24 | 105 | 10  | 13 | 38   | G 1/4 | 54  | 53  | M12×1.25 | G 1/8 | 16 | 35 | 4 | 34   | 14.5 | 6  | M6×12L  | 5.3 | 4.5 | 12  | M6×1.0×15L  | 20 | 70  | 195 |
| 50                | 32 | 106 | 10  | 16 | 46.5 | G 1/4 | 65  | 65  | M16×1.5  | G 1/8 | 20 | 40 | 4 | 31   | 16   | 8  | M8×14L  | 8.5 | 4.5 | 16  | M8×1.25×18L | 22 | 90  | 218 |
| 63                | 32 | 121 | 10  | 16 | 56.5 | G 3/8 | 75  | 78  | M16×1.5  | G 1/8 | 20 | 45 | 4 | 33   | 16   | 8  | M8×14L  | 8   | 4.5 | 16  | M8×1.25×18L | 22 | 90  | 233 |
| 80                | 40 | 128 | 10  | 21 | 72   | G 3/8 | 95  | 95  | M20×1.5  | G 1/4 | 25 | 45 | 4 | 35.5 | 20.5 | 10 | M10×16L | 9   | 4.5 | 18  | M10×1.5×19L | 24 | 110 | 262 |
| 100               | 40 | 138 | 10  | 21 | 89   | G 1/2 | 114 | 115 | M20×1.5  | G 1/4 | 25 | 55 | 4 | 37   | 19   | 10 | M10×16L | 13  | 4.5 | 18  | M10×1.5×19L | 26 | 110 | 274 |

# MCBQV Dimensions $\phi 125$

## ROD LOCKING CYLINDERS



### MCBQV



| Code<br>Tube I.D. | A  | B   | BF | B1 | D   | DD    | E1  | E2  | EA      | EB    | G  | H  | J | K  | L  | R    | T       | U  | UC | UD | WF | Y   | ZB  |
|-------------------|----|-----|----|----|-----|-------|-----|-----|---------|-------|----|----|---|----|----|------|---------|----|----|----|----|-----|-----|
| 125               | 54 | 160 | 16 | 27 | 110 | G 1/2 | 138 | 140 | M27×2.0 | G 1/4 | 32 | 60 | 6 | 40 | 25 | 13.5 | M12×20L | 11 | 22 | 18 | 41 | 140 | 341 |