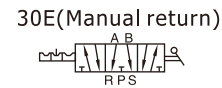
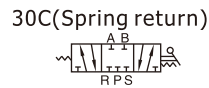
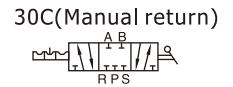
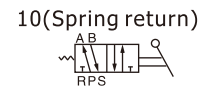
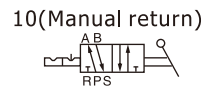


# Hand lever valve (5/2 way, 5/3 way)

## 4H Series



### Ordering code

**4H 2 30C 08 T**



| ① Model                                 | ② Code        | ③ Valve type   | ④ Port size          | ⑤ Thread type |
|---|---------------|--|----------------------|---------------|
| 4H: Manual return<br>4HA: Spring return | 2: 200 Series | 10: 5/2 Way<br>30C: 5/3 Way closed center<br>30E: 5/3 Way exhaust center | 06: 1/8"<br>08: 1/4" | T: NPT        |
|   | 3: 300 Series |  | 08: 1/4"<br>10: 3/8" |               |

### Specification

| Model               | 210-06                                       | 230-06                           | 210-08                           | 230-08                           | 310-08                           | 330-08                           | 310-10                           | 330-10                           |
|---------------------|--|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Fluid               | Air (to be filtered by 40 μm filter element) |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Operating           | Manual control direct acting type)           |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Port size[Note1]    | In=Out<br>=Exhaust=1/8"                      |                                  | In=Out=1/4";<br>Exhaust=1/8"     |                                  | In=Out<br>=Exhaust=1/4"          |                                  | In=Out=3/8";<br>Exhaust=1/4"     |                                  |
| Orifice size        | 14.0mm <sup>2</sup><br>(Cv=0.78)             | 12.0mm <sup>2</sup><br>(Cv=0.67) | 16.0mm <sup>2</sup><br>(Cv=0.89) | 12.0mm <sup>2</sup><br>(Cv=0.67) | 25.0mm <sup>2</sup><br>(Cv=1.39) | 18.0mm <sup>2</sup><br>(Cv=1.00) | 30.0mm <sup>2</sup><br>(Cv=1.67) | 18.0mm <sup>2</sup><br>(Cv=1.00) |
| Valve type          | 5/2 way                                      | 5/3 way                          | 5/2 way                          | 5/3 way                          | 5/2 way                          | 5/3 way                          | 5/2 way                          | 5/3 way                          |
| Lubrication [Note2] | Not required                                 |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Pressure range      | 0~145psi(0~1.0MPa)                           |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Proof pressure      | 215psi(1.5MPa)                               |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Temperature         | -20~70°C                                     |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Material body       | Aluminum alloy                               |                                  |                                  |                                  |                                  |                                  |                                  |                                  |
| Operating angle     | ± 15°  | ± 8.5°                           | ± 15°                            | ± 8.5°                           | ± 18°                            | ± 10°                            | ± 18°                            | ± 10°                            |

[Note1] NPT thread is available.

[Note2] Once lubricated air is used, continue with same medium to optimise valve life span.

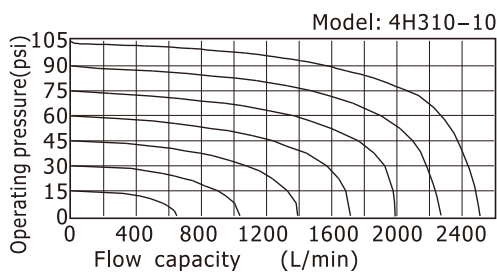
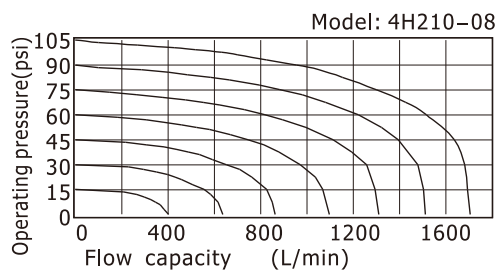
It is suggested to use ISO VG32 lubricant or the oil with the same grade.

## 4H Series

### Product feature

1. Manual operation, smooth actuation, and exact and reliable orientation.
2. Sliding column structure has good tightness and light weight and is easy to install and dismount.
3. Internal hole adopts special processing technology which has little attrition friction, long service life.
4. No need to add oil for lubrication.
5. Panel-mounting makes it convenient to install and apply.

### Flow chart



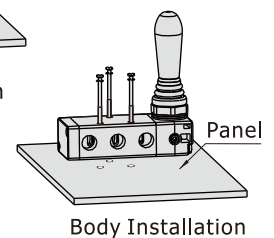
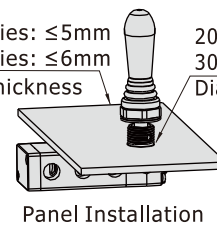
### Installation

1. 5/3 way manual return hand lever valve is positioned by steel ball, which is convenient to switch. Please apply the proper force to avoid the position mismatch and misoperation.
2. When installed by panel, disassemble the gasket according to the practical requirement.
3. Below is the installation method for reference.

Note: Please give your attention on the panel thickness and hole dimension when installed by panel.

200 Series:  $\leq 5\text{mm}$   
 300 Series:  $\leq 6\text{mm}$   
 Panel thickness

200 Series:  $\Phi 16$   
 300 Series:  $\Phi 20$   
 Dia. of Installation hole



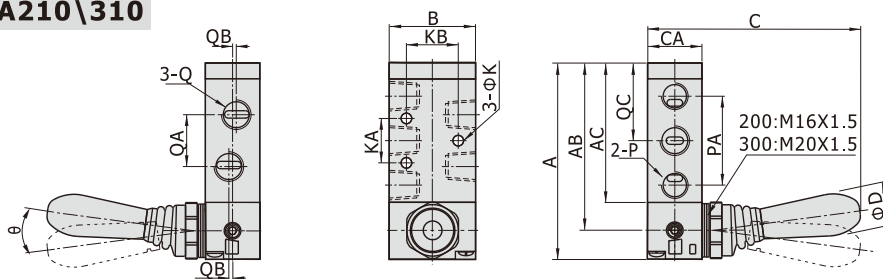
# Hand lever valve (5/2 way, 5/3 way)

## 4H Series

### Dimensions

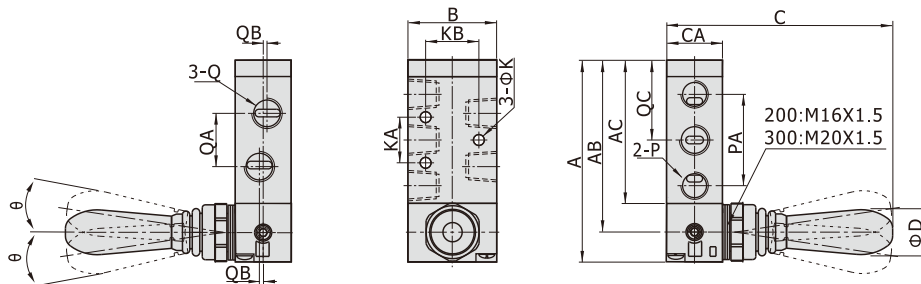
#### 4H210\310、4HA210\310

[Unit: mm]



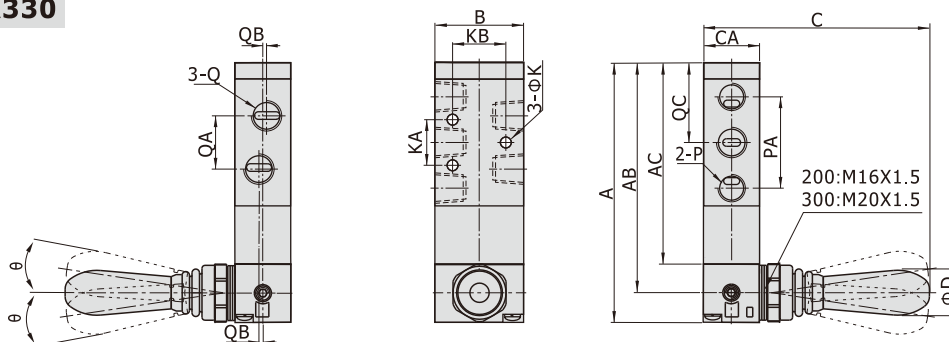
| Model\Item         | A    | AB   | AC   | B  | C    | CA | D  | K   | KA | KB   | P    | PA | Q    | QA | QB  | QC   | Θ  |
|--------------------|------|------|------|----|------|----|----|-----|----|------|------|----|------|----|-----|------|----|
| 4H210-06\4HA210-06 | 81.5 | 69.5 | 57.5 | 35 | 90   | 22 | 18 | 4.3 | 20 | 23.5 | 1/8" | 36 | 1/8" | 18 | -   | 32.5 | 15 |
| 4H210-08\4HA210-08 | 81.5 | 69.5 | 57.5 | 35 | 90   | 22 | 18 | 4.3 | 20 | 23.5 | 1/8" | 36 | 1/4" | 21 | 1.5 | 32.5 | 15 |
| 4H310-08\4HA310-08 | 101  | 87   | 73   | 40 | 93.5 | 27 | 18 | 4.3 | 24 | 27.5 | 1/4" | 45 | 1/4" | 22 | -   | 40.5 | 18 |
| 4H310-10\4HA310-10 | 101  | 87   | 73   | 40 | 93.5 | 27 | 18 | 4.3 | 24 | 27.5 | 1/4" | 45 | 3/8" | 24 | 2   | 40.5 | 18 |

#### 4H230、4H330



| Model\Item          | A    | AB   | AC   | B  | C    | CA | D  | K   | KA | KB   | P    | PA | Q    | QA | QB  | QC   | Θ   |
|---------------------|------|------|------|----|------|----|----|-----|----|------|------|----|------|----|-----|------|-----|
| 4H230C-06\4H230E-06 | 81.5 | 69.5 | 57.5 | 35 | 90.5 | 22 | 18 | 4.3 | 20 | 23.5 | 1/8" | 36 | 1/8" | 18 | -   | 32.5 | 8.5 |
| 4H230C-08\4H230E-08 | 81.5 | 69.5 | 57.5 | 35 | 90.5 | 22 | 18 | 4.3 | 20 | 23.5 | 1/8" | 36 | 1/4" | 21 | 1.5 | 32.5 | 8.5 |
| 4H330C-08\4H330E-08 | 101  | 87   | 73   | 40 | 94   | 27 | 18 | 4.3 | 24 | 27.5 | 1/4" | 45 | 1/4" | 22 | -   | 40.5 | 10  |
| 4H330C-10\4H330E-10 | 101  | 87   | 73   | 40 | 94   | 27 | 18 | 4.3 | 24 | 27.5 | 1/4" | 45 | 3/8" | 24 | 2   | 40.5 | 10  |

#### 4HA230、4HA330



| Model\Item            | A     | AB   | AC   | B  | C    | CA | D  | K   | KA | KB   | P    | PA | Q    | QA | QB  | QC   | Θ   |
|-----------------------|-------|------|------|----|------|----|----|-----|----|------|------|----|------|----|-----|------|-----|
| 4HA230C-06\4HA230E-06 | 100.5 | 88.5 | 76.5 | 35 | 90.5 | 22 | 18 | 4.3 | 20 | 23.5 | 1/8" | 36 | 1/8" | 18 | -   | 32.5 | 8.5 |
| 4HA230C-08\4HA230E-08 | 100.5 | 88.5 | 76.5 | 35 | 90.5 | 22 | 18 | 4.3 | 20 | 23.5 | 1/8" | 36 | 1/4" | 21 | 1.5 | 32.5 | 8.5 |
| 4HA330C-08\4HA330E-08 | 120   | 106  | 92   | 40 | 94   | 27 | 18 | 4.3 | 24 | 27.5 | 1/4" | 45 | 1/4" | 22 | -   | 40.5 | 10  |
| 4HA330C-10\4HA330E-10 | 120   | 106  | 92   | 40 | 94   | 27 | 18 | 4.3 | 24 | 27.5 | 1/4" | 45 | 3/8" | 24 | 2   | 40.5 | 10  |