

# Ball Valve Type 21 (Pneumatic actuated Type AA) 15mm - 50mm(1/2inch - 2inch)

- Body Material**  
PVC  
C-PVC  
PP  
PVDF
- O-ring Material**  
EPDM  
FKM
- Connection Standard**  
Socket End JIS  
Socket End ASTM SCH80  
Socket End DIN  
Threaded End Rc  
Threaded End NPT  
Threaded End Rp  
Flanged End JIS10K  
Flanged End ANSI CLASS150  
Flanged End DIN PN10



Air to Open

- Action**  
Double Acting  
Air to Open  
Air to Close
- Equipment**  
Indicator
- Option**  
· Filter Regulator  
· Solenoid Valve  
· Limit Switch  
· Speed Controller  
· Manual Operation Mechanism  
※only for Air to Open & Close  
· Full Opening Adjustment Mechanism  
· Positioner



Double Acting

## FEATURES

- Actuator made of resin is Light and Compact.
- NAMUR Standard is applied for air piping.

## OPTIONAL EQUIPMENT

| Combination No.                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|------------------------------------|---|---|---|---|---|---|---|---|---|
| Solenoid Valve ※                   | ○ | — | — | ○ | ○ | — | ○ | — | — |
| Filter Regulator                   | — | — | — | ○ | — | — | ○ | — | ○ |
| Speed Controller                   | ◎ | ○ | — | ◎ | ◎ | ○ | ◎ | — | — |
| Limit Switch                       | — | — | ○ | — | ○ | ○ | ○ | — | — |
| Positioner (Electric-Air, Air-Air) | — | — | — | — | — | — | — | ○ | ○ |

◎Indicates specialized for Solenoid Valve.  
 ※With built-in speed controller and bypass valve.  
 \* for the actuator with lubricant free valves consult near Asahi dealer.

## ACTUATOR SPECIFICATION [Double Acting]

| Nominal Size mm(inch)  | 15 - 32<br>(1/2inch - 1 1/4inch) | 40-50<br>(1 1/2inch- 2inch) |
|--|----------------------------------|-----------------------------|
| Actuator Type  | PPW                              | PP00                        |
| Operating Pressure Mpa[kgf/cm <sup>2</sup> ]                       | 0.4{4.1} - 0.6{6.1}              |                             |
| Air Consumption NI /Open & Close<br>(at operating pressure 0.4NPa) | 0.6                              | 1.3                         |
| Air Supply Bore  | Rc 1/4                           |                             |

## ACTUATOR SPECIFICATION [Air to Open, Air to Close]

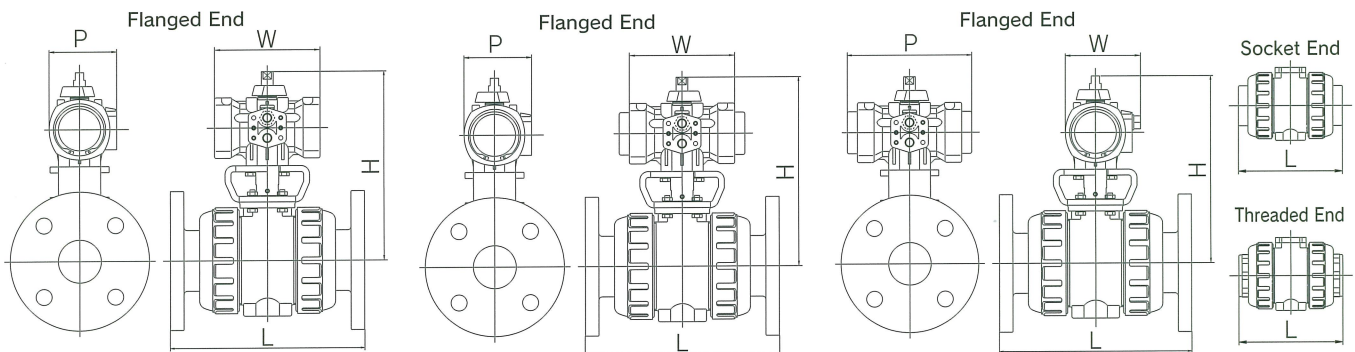
| Nominal Size mm(inch)  | 15 - 32<br>(1/2inch - 1 1/4inch) | 40-50<br>(1 1/2inch- 2inch) |
|--|----------------------------------|-----------------------------|
| Actuator Type  | PP00S                            | PP10S                       |
| Operating Pressure Mpa[kgf/cm <sup>2</sup> ]                       | 0.4{4.1} - 0.6{6.1}              |                             |
| Air Consumption NI /Open & Close<br>(at operating pressure 0.4NPa) | 0.7                              | 1.7                         |
| Air Supply Bore  | Rc 1/4                           |                             |

## DIMENSIONS FIGURE

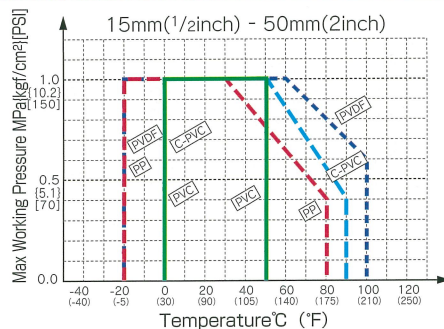
Double Acting

Air to Open

Air to Close



## WORKING PRESSURE VS. TEMPERATURE



DIMENSIONS TABLE

| JIS, ANSI, DIN |      |               |               | Unit:mm(inch) |               |                 |                 |                 |                 |               |               |
|----------------|------|---------------|---------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|---------------|---------------|
| Nominal Size   |      |               |               | 15<br>(1/2)   | 20<br>(3/4)   | 25<br>(1)       | 32<br>(1 1/4)   | 40<br>(1 1/2)   | 50<br>(2)       |               |               |
| Flanged End    | L    | PVC, C-PVC    | JIS           | 143<br>(5.63) | 172<br>(6.77) | 187<br>(7.36)   | 190<br>(7.48)   | 212<br>(8.35)   | 234<br>(9.21)   |               |               |
|                |      |               | DIN           | 130<br>(5.12) | 150<br>(5.91) | 160<br>(6.30)   | 180<br>(7.09)   | 200<br>(7.87)   | 230<br>(9.06)   |               |               |
|                |      |               | ANSI          | 143<br>(5.63) | 172<br>(6.77) | 187<br>(7.36)   | 190<br>(7.48)   | 212<br>(8.35)   | 234<br>(9.21)   |               |               |
|                |      | PP            | JIS           | 143<br>(5.63) | 172<br>(6.77) | 187<br>(7.36)   | 190<br>(7.48)   | 212<br>(8.35)   | 234<br>(9.21)   |               |               |
|                |      |               | DIN           | 130<br>(5.12) | 150<br>(5.91) | 160<br>(6.30)   | 180<br>(7.09)   | 200<br>(7.87)   | 230<br>(9.06)   |               |               |
|                |      |               | ANSI          | 143<br>(5.63) | 172<br>(6.77) | 187<br>(7.36)   | 190<br>(7.48)   | 212<br>(8.35)   | 234<br>(9.21)   |               |               |
|                |      | PVDF          | JIS           | 143<br>(5.63) | 172<br>(6.77) | 187<br>(7.36)   | 190<br>(7.48)   | 212<br>(8.35)   | 234<br>(9.21)   |               |               |
|                |      |               | DIN           | 130<br>(5.12) | 150<br>(5.91) | 160<br>(6.30)   | 180<br>(7.09)   | 200<br>(7.87)   | 230<br>(9.06)   |               |               |
|                |      |               | ANSI          | 143<br>(5.63) | 172<br>(6.77) | 187<br>(7.36)   | 190<br>(7.48)   | 212<br>(8.35)   | 234<br>(9.21)   |               |               |
|                |      | Socket End    | L             | PVC, C-PVC    | JIS           | 108<br>(4.25)   | 128<br>(5.04)   | 145<br>(5.71)   | 162<br>(6.38)   | 189<br>(7.44) | 220<br>(8.66) |
|                |      |               |               |               | DIN           | 102<br>(4.02)   | 120<br>(4.72)   | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42) | 197<br>(7.76) |
|                |      |               |               |               | ANSI          | 113.0<br>(4.45) | 129.0<br>(5.08) | 146.1<br>(5.75) | 164.1<br>(6.46) | 184<br>(7.24) | 209<br>(8.23) |
| PP             | JIS  |               |               | 108<br>(4.25) | 126<br>(4.96) | 141<br>(5.55)   | -               | 171<br>(6.73)   | 192<br>(7.56)   |               |               |
|                | DIN  |               |               | 99<br>(3.90)  | 114<br>(4.49) | 123<br>(4.84)   | 139<br>(5.47)   | 148<br>(5.83)   | 176<br>(6.93)   |               |               |
|                | ANSI |               |               | 113<br>(4.45) | 129<br>(5.08) | 146<br>(5.75)   | 164<br>(6.46)   | 184<br>(7.24)   | 209<br>(8.23)   |               |               |
| PVDF           | DIN  |               |               | 99<br>(3.90)  | 114<br>(4.49) | 123<br>(4.84)   | 139<br>(5.47)   | 148<br>(5.83)   | 176<br>(6.93)   |               |               |
|                | ANSI |               |               | 113<br>(4.45) | 129<br>(5.08) | 146<br>(5.75)   | 164<br>(6.46)   | 184<br>(7.24)   | 209<br>(8.23)   |               |               |
| Threaded End   | L    |               |               | PVC, C-PVC    | JIS           | 102<br>(4.02)   | 120<br>(4.72)   | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42) | 197<br>(7.76) |
|                |      |               |               |               | DIN           | 102<br>(4.02)   | 120<br>(4.72)   | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42) | 197<br>(7.76) |
|                |      |               |               |               | ANSI          | 102<br>(4.02)   | 120<br>(4.72)   | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42) | 197<br>(7.76) |
|                |      |               |               | PP            | JIS           | 102<br>(4.02)   | 120<br>(4.72)   | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42) | 197<br>(7.76) |
|                |      | DIN           | 102<br>(4.02) |               | 120<br>(4.72) | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42)   | 197<br>(7.76)   |               |               |
|                |      | ANSI          | 102<br>(4.02) |               | 120<br>(4.72) | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42)   | 197<br>(7.76)   |               |               |
|                |      | PVDF          | JIS           | 102<br>(4.02) | 120<br>(4.72) | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42)   | 197<br>(7.76)   |               |               |
|                |      |               | DIN           | 102<br>(4.02) | 120<br>(4.72) | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42)   | 197<br>(7.76)   |               |               |
|                |      |               | ANSI          | 102<br>(4.02) | 120<br>(4.72) | 131<br>(5.16)   | 150<br>(5.91)   | 163<br>(6.42)   | 197<br>(7.76)   |               |               |
|                |      | Double Acting | H             | 155<br>(6.1)  | 162<br>(6.38) | 169<br>(6.65)   | 178<br>(7.01)   | 211<br>(8.31)   | 223<br>(8.78)   |               |               |
|                |      |               | W             | 107<br>(4.21) | 107<br>(4.21) | 107<br>(4.21)   | 107<br>(4.21)   | 125<br>(4.92)   | 125<br>(4.92)   |               |               |
|                |      |               | P             | 69<br>(2.72)  | 69<br>(2.72)  | 69<br>(2.72)    | 69<br>(2.72)    | 80<br>(3.15)    | 80<br>(3.15)    |               |               |
| Air to Open    | H    | 180<br>(7.09) | 187<br>(7.36) | 194<br>(7.64) | 203<br>(7.99) | 228<br>(8.98)   | 240<br>(9.45)   |                 |                 |               |               |
|                | W    | 149<br>(5.87) | 149<br>(5.87) | 149<br>(5.87) | 149<br>(5.87) | 222<br>(8.74)   | 222<br>(8.74)   |                 |                 |               |               |
|                | P    | 89<br>(3.50)  | 89<br>(3.50)  | 89<br>(3.50)  | 89<br>(3.50)  | 106<br>(4.17)   | 106<br>(4.17)   |                 |                 |               |               |
| Air to Close   | H    | 180<br>(7.09) | 187<br>(7.36) | 194<br>(7.64) | 203<br>(7.99) | 228<br>(8.98)   | 240<br>(9.45)   |                 |                 |               |               |
|                | W    | 89<br>(3.50)  | 89<br>(3.50)  | 89<br>(3.50)  | 89<br>(3.50)  | 106<br>(4.17)   | 106<br>(4.17)   |                 |                 |               |               |
|                | P    | 149<br>(5.87) | 149<br>(5.87) | 149<br>(5.87) | 149<br>(5.87) | 222<br>(8.74)   | 222<br>(8.74)   |                 |                 |               |               |