

# Four-position two-way valve Instruction for use





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## 1. Structure and working principle

Four-position two-way valve consists of 316L stainless steel valve body, PTFE valve core and handle. The body has four positions and the handle has one guide curve, indicating the connection of two positions (which the guide curve is pointing to) and the closure of the other two when turning the handle.

Four-position four-way valve consists of 316L stainless steel valve body, PTFE valve core and handle. The body has four positions and the handle has two guide curves, indicating the connection of two positions (which the guide curve is pointing to) and the closure of the other two when turning the handle. See the following picture:





#### 2. Instruction for use

2.1 Connect position 3 to the hose for chromatography column inlet, connect peristaltic pump and chromatography system to position 2 or position 4. When guide curve turns toward position 2/position 4, liquid can be transferred to chromatography column. See the two positions in the following picture, when position 2 and position 3 are connected, it is ready for the operation of chromatography column.



2.2 Turn the handle counterclockwise for 90 degrees, the guide curve is towards position 1 and position 2(which indicates the connection of two positions). Position 1 is liquid outlet for removal of the air in system and column.





2.3 Keep on turning the handle counterclockwise for 90 degrees, guide curve is towards position 1 and position 4(which means the connection of the two positions), indicating the column is closed.



2.4 Keep on turning the handle counterclockwise for 90 degrees, guide curve is towards position 4 and position 3(which indicates the connection of the two positions). Position 4 is outlet for waste liquid. When the O-ring of column adaptor is half tightened, press the column adaptor can help remove the bubbles in column.



Note: Four-position four-way valve and Four-position two-way valve can be used in the same fashion. That is, when two positions are connected, the other two will connect automatically.



## 3. Trouble shooting

3.1 If it is diffcult to turn the handle, please loosen the nut on valve bottom with a wrench, see the following picture.



- 3.2 Leakage of valve:
- 1) Leakage is possible caused by the loose nut on the valve bottom, tighten it up by a wrench.
- 2) Impurities in valve core can also cause leakage of valve, cleaning can help with the problem. Loosen the valve bottom nut with a wrench, pull the valve core out, wipe with soft cloth, immerse the core in 100% ethanol for 15 min. Install the valve and problem is solved.

#### 4. Order information

Product	Cat No	Packing
Four-position two-way valve, 6mm	B-006	1 pc
Four-position two-way valve, 10mm	B-010	1 pc
Four-position four-way valve, 6mm	BA210021	1 pc
Four-position four-way valve, 10mm	BA220021	1 pc