## Installation manual



In order to install one of our valves make sure:

- Do not use any Teflon-tape on any pipe fittings.
- To clean the surface between the manifold and the valve with a lint free cloth.
- All O-Rings at the P, T, A-ports are installed.
- The correct installation on a: 3 way 2 position valve, the T-port is always the one closest to the solenoid, the P-port is the furthest from the solenoid. The A-port is located between the P & T ports. Refer to fig. 1.

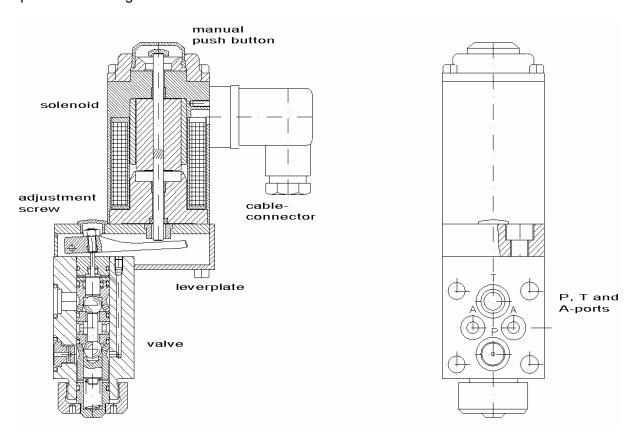


fig. 1: 3 way, 2 position valve

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• The correct installation on a: 2-way 2 position valve, the A-port is closest to the solenoid and the P-port is the port furthest from the solenoid. Refer to fig. 2.

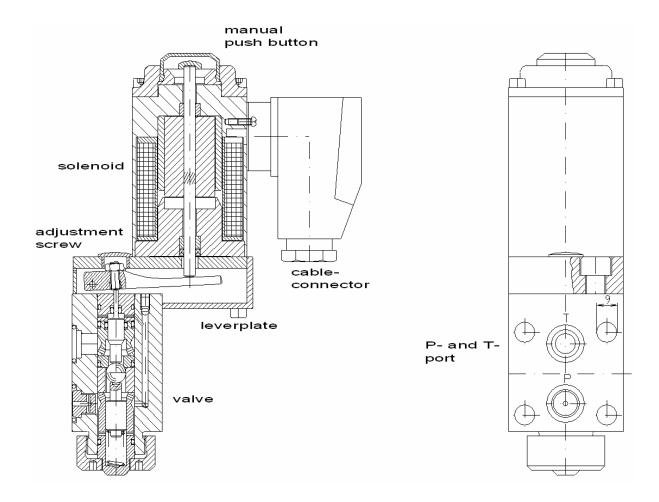


fig. 2: 2 way, 2 position valve

- Connect the valve to a suitable power source. Pay attention to the voltage and the type of power supply (AC/DC). The correct voltage is listed on the metal name plate, on the solenoid.
- Make sure not to confuse the polarity (+) and (-) if these are marked on the wire terminals inside the junction box.
- Connect the ground cable (yellow-green resp. green in US) to the appropriate socket where applicable.

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- Use stainless screws class A2-70 or A4-70 and to apply anti-seize grease to the thread.
- To tighten the screws that hold the valve on the manifold. Use a torque-wrench and apply the following torque to the screws:

Valve size	Screw	Applied torque [Nm]
DN2	M5	5
DN3	M5	5
DN6	M6	8
DN10	M10	35
DN15	M12	61

- Do not to exceed the pressure range the valve is designed for. This range is given on the valve label.
- Do not exceed the temperature range the valve is designed for.
- Return line (drain) should not see any back pressure.
- If the valve or manifold has a port(s) labeled
  - Y is a separate drain line for the pilot valve, connect to non-pressurized Tank line.
  - X is a separate Pressure supply to pilot valve.
- The following instructions must be completed before system operation. System must be flushed to meet NAS 1638 Class 6 system cleanliness or equivalent. Recommended filtration for valve size DN2 should be 10 micron or better for DN3 – DN15 should be 20 micron or better.

**Notice to user**: Failure to follow these instructions could lead to possible personal injury, valve or system damage. Please contact Dr. Breit (Germany) with any questions.