2-3FAA.P/2-3FAA.T/2FAA125B/2FAA150B/2FSA.B

PN25 and PN40 Flanged Globe Valves

APPLICATION AND USE

The 2-3FAA.P, 2-3FAA.T and 2FSA.B series valves are used for the control of fluids of group 1; while the 2FAA.B series for the control of fluids of group 2 according to the provisions of art. 13 of Directive 2014/68/UE (PED) in civil and industrial air conditioning, thermo-ventilation and heating systems and industrial process plants and thermal machines; **therefore they cannot be used as safety valves**.

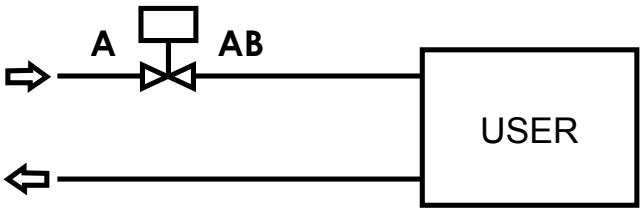
INSTALLATION

Hydraulic Connections

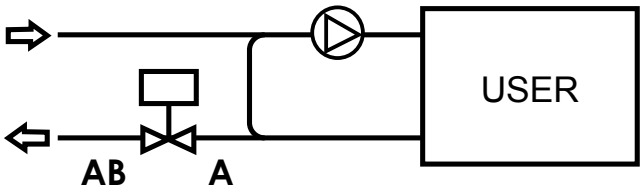
Follow the fluid directions as shown in the diagram below.

TWO WAY VALVES

Valve with variable flow to the user



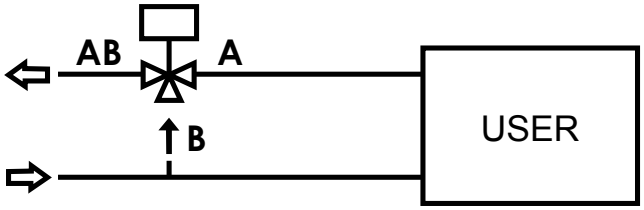
Valve with constant flow to the user



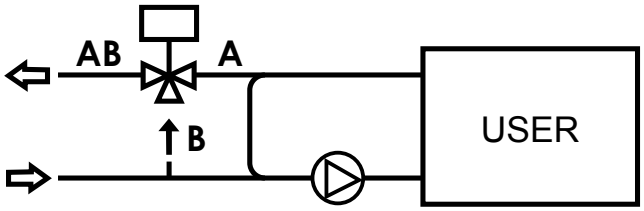
It is advisable to install two-way valves on the return leg (excluding steam plants) since the lower temperature of the fluid allows a longer life of the gaskets.

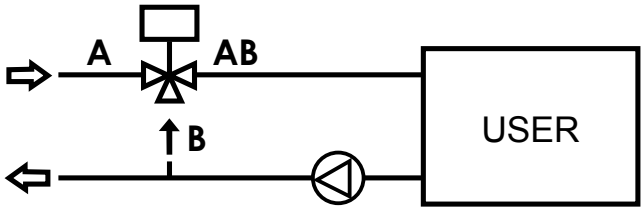
THREE WAY VALVES

Mixing valve in diverting mode



Mixing valve for constant flow to the user





Three-way valves must be used as mixers, two inlets A and B and one outlet AB, and not as diverting valves with one inlet AB and two outlets A and B.

The use of diverting valves can be necessary only in open circuit plants. In such cases our mixing valves can be used taking into account that the maximum recommended differential pressure must be reduced to one third of the specified value, see relevant data sheet.

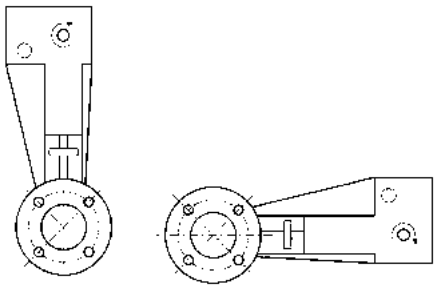
The performances stated in this sheet can be modified without any prior notice.

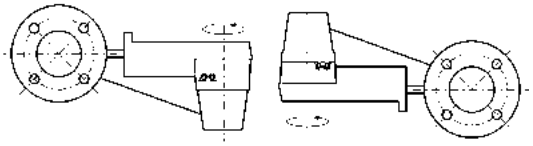
ASSEMBLING

Before installing the valve, make sure the pipes are clean and free from weld slag in order not to damage the internal parts of the valve itself. The pipes must be perfectly aligned with the valve body and not be subjected to vibrations.

For applications with fluids above 200°C (steam, overheated water, diathermic oil), install expansion joints to avoid the expansion of the pipes to cause undue stress on the valve body.

The valve can be mounted in any position within 180°. In case of MVH actuator, always mount it with the shaft in horizontal position (see Fig. 3).
During the actuator position adjustment, do not unscrew the stroke adjustment nut.





The valve must be mounted horizontally in all applications where the high temperature of the fluid, contributes, together with room temperature, to create around the actuator an ambient at a temperature higher than 50°C, the maximum allowable value for its regular operation.

The actuators must not be installed in explosive environments and must not be subjected to steam jets or dripping water. Leave sufficient room over the actuator, at least 10-15 cm., to allow the actuator disassembling from the valve body for eventual maintenance.

START-UP

Before the Valve Start-up, check:

- FLOW DIRECTION
  It must correspond to the indications printed on the valve body and shown in Fig. 1 and 2.

- VALVE OPENING AND CLOSING
  This must comply with the plant specification, keep in mind that:

Two-way valves (2FAA.P, 2FAA.T, 2FAA125B e 2FAA150B)
Stem down = fluid intercepted
Stem up = fluid passing

Two-way valves (2FSA.B)
Stem down = fluid passing
Stem up = fluid intercepted

Three-way valve (3FAA.P e 3FAA.T)
Stem down = fluid flows through A-AB
fluid intercepted through B-AB
Stem up = fluid intercepted through A-AB
fluid flows through B-AB

OPERATING CONDITIONS

Temperature, nominal pressure and the type of fluid must correspond to the following table.

Cod.	Fluid Temp. [°C]	DN	P max [bar]	Fluid
3FAA32P	-10 to 350	32	40	Group 1
3FAA32T	-20 to 230	32	40	
3FAA40P	-10 to 350	40	40	
3FAA40T	-20 to 230	40	40	
3FAA50P	-10 to 350	50	40	
3FAA50T	-20 to 230	50	40	
3FAA65P	-10 to 350	65	40	
3FAA65T	-20 to 230	65	40	
3FAA80P	-10 to 350	80	40	
3FAA80T	-20 to 230	80	40	
3FAA100P	-10 to 350	100	40	
3FAA100T	-20 to 230	80	40	
3FAA125P	-10 to 350	125	25	
3FAA125T	-20 to 230	125	25	
2FAA32P	-10 to 350	32	40	Group 1
2FAA32T	-20 to 230	32	40	
2FAA40P	-10 to 350	40	40	
2FAA40T	-20 to 230	40	40	
2FAA50P	-10 to 350	50	40	
2FAA50T	-20 to 230	50	40	
2FAA65P	-10 to 350	65	40	
2FAA65T	-20 to 230	65	40	
2FAA80P	-10 to 350	80	40	
2FAA80T	-20 to 230	80	40	
2FAA125B	-20 to 230	125	40	Group 2
2FAA150B	-10 to 230	150	25	
2FSA50B	-10 to 230	50	25	Group 1
2FSA65B	-10 to 230	65	25	

PIPE FLUSHING

An anomalous valve flow action is caused, in almost all cases, by weld slag or foreign bodies entrapped between the valve seat and the plug, often causing damages.
To prevent such inconveniences, it is advisable to use filters upstream of the valve.
Moreover, the pipelines must be thoroughly washed by positioning the valve stem at half stroke; this operation must be performed before start-up and after a prolonged shutdown of the system.

MAINTENANCE

Stem packing tight check

he valves require periodic maintenance; an annual inspection is advised. Following the hydraulic installation it is necessary to check the tight of the stem packing placed on the bonnet, both in cases of low and high temperatures.

Valves have a stem packing with Teflon rings or, in case of extended neck valves for high temperatures, with packing.
In case of leakage, it is necessary to tighten the gland nut so until leakage ceases. Do not overtighten since this may cause the stem blocking.

Valve stem lubrication

For extended neck valves equipped with a forced lubrication device (mod. 2FAA.P - 3FAA.P), periodically rotate the greaser nipples in order to grant an adequate stem lubrication.

Inject the grease with the pressure screw at its stroke end, by completely unscrewing the greaser nipple.

Fill with silicon grease, then re-tighten the screw a few turns. This operation must be carried out with the plant out-of-service and with the valve plug in closed position.

MAX. OPERATING PRESSURE (kPa) ACCORDING TO TEMPERATURE (UNI1284)

Fluid Temp. [°C]	PN40		PN25	
	2FAA.P 2FAA125B / 2FAA150B 3FAA.P (no 3FAA125P)	2FAA.T 3FAA.T (no 3FAA125T)	2FSA50B / 2FSA65B	3FAA125P / 3FAA125T
-20 to -10	-	4000	-	2500
-10 to 120	4000	4000	2500	2500
120 to 150	3700	3700	2300	2300
150 to 200	3200	3200	2000	2000
200 to 230	3000	3000	1900	1900
230 to 250	2800	2800	-	-
250 to 300	2400	2400		
300 to 350	2200	2200		