2FAA.B

PN40 Two-way Balanced Valves

MODEL	DN	PN	Kvs [m^3/h]
2FAA25B	25	40	10
2FAA32B	32		16
2FAA40B	40		25
2FAA50B	50		40
2FAA65B	65		63
2FAA80B	80		100
2FAA100B	100		160
2FAA125B	125		200



APPLICATION AND USE

2FAA.B balanced valve bodies are designed for use in air-conditioning, thermoventilation and heating systems and in industrial process and they cannot be used as safety valves. They can be employed to control fluids belonging to group 2 according to the article 13 of 2014/68/UE directive (PED).
Group 2 includes water, overheated water, steam. For fluids belonging to group 2 differing from the ones listed above, please contact our Sales Support.
The peculiar characteristic of such valves is they can operate under high close off pressure and wherever low leakage is required. This makes them particularly suitable in applications with high pressure and high DT, such as overheated water (i.e. remote control, boiler supply) and steam.

MANUFACTURING CHARACTERISTICS

CHARACTERISTICS	DESCRIPTION
Valve body	Steel
Seat, Plug, Stem	Stainless steel
Balancing gasket	Teflon ring with steel spring
Stem packing	Teflon

TECHNICAL CHARACTERISTICS

CHARACTERISTICS		DESCRIPTION
Connections		PN40 flanges
Control characteristic		Equal percentage
Leakage (% of Kvs)		0,02
Allowed fluids	Water	min. temperature -20°C(1), glycol added max 50%
	Overheated water	temp. max 230°C(2)
	Steam	max pressure 1200kPa, temp. max 230°C.
Storage temperature		-20T60°C

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

CHARACTERISTICS	DESCRIPTION
Reference standards	Control valves for hot water heating plant: UNI 9753 Flow characteristics: IEC 534-2-4 Leakage: measured according to the EN1349 standard

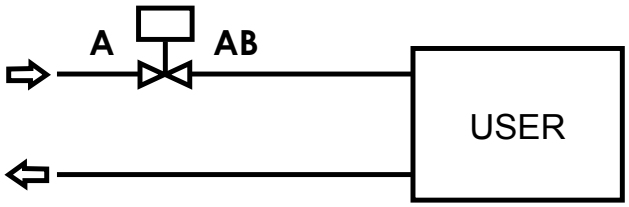
(1) See 248 accessory.
(2) Temperature/pressure ratio according to the standard UNI12516-1.

INSTALLATION

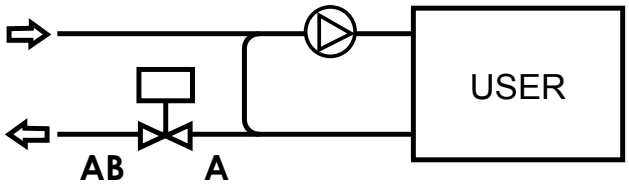
Hydraulic connections

Respect the fluid directions: inlet is labelled by A and outlet by AB.

Valve with variable flow to the user



Valve with constant flow to the user



Valve mounting

Before mounting the valve, make sure pipes are clean, free from welding slags. The pipes must be perfectly aligned with the valve body and not subjected to vibrations.
For installations on plants with high temperature fluids (steam, overheated water) use expansion joints to avoid the dilatation of pipes to stress the valve body.
In any case, avoid installing the valve in plants which are considered aggressive and/or corrosive for valve materials.
Please contact our Sales Support in order to define which potentially aggressive or polluting substances can be used.
We disclaim all responsibility in case of valve failure due to external fortuitous events (fire, earthquakes etc.).
Mount the valves with the actuator in vertical position with fluid temperature up to 120°C. For higher temperatures, the valves must be mounted horizontally, otherwise the use of the MVHT accessory is required.
NOTE: 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. The valves require periodic maintenance.

OPERATION

With stem up the valve is closed, with stem down the valve is in open.

ACTUATORS TECHNICAL CHARACTERISTICS, WIRING DIAGRAM AND INSTALLATION

See MVH, MVHA/C and MVE actuators data sheets and mounting instructions.

MOTORIZED VALVES OPTIONS

A150-2 Flanges with ANSI 150 bolt holes
A300-2 Flanges with ANSI 300 bolt holes (DN32÷65 and DN100÷125)

ACCESSORIES

248 Stem heater for applications with possible ice formation on stem and packing.
MVHT Valve body actuator spacer to reduce the direct exposure of the actuator when installed on a valve with high temperature fluids. Dimensions: Ø 120 mm; h = actuator height + 102 mm.

MAX CLOSE-OFF DIFFERENTIAL PRESSURE [kPa]

U-BOLT CONNECTION	DN	MVH	MVHEA/C*	MVE.06	MVE.10	MVE.15	MVE.22
2FAA.B	25	3000	3000	3000	3000	3000	4000
	32	3000	3000	3000	3000	3000	4000
	40	3000	3000	2760	3000	3000	4000
	50	3000	2810	2100	3000	3000	4000
	65	3000	2040	1490	3000	3000	4000
	80	3000	1550	1100	2960	3000	4000
	100	3000	950	650	1910	3000	3492
	125	2330	660	420	1430	2700	2700

100kPa = 1bar = 10m_{H_2O} * MVH.A in emergency closes the valve; MVH.C in emergency opens the valve.

MAX REGULATION DIFFERENTIAL PRESSURE [kPa]

The max regulation differential pressure, it means the pressure which can be used during the stroke, is conditioned by wear between seat and plug and by the performance guaranteed by the actuator for the evaluated valve. So we recommend not to overcome the differential pressure whose value corresponds to the minimum between 1200kPa (maximum admitted value not to cause wear) and the one shown in the previous table (max close-off differential pressure).

Note: The max operating pressures at different temperatures for various PN classes must correspond to the following standards: UNI 1092-02 and UNI 12516-1.

DIMENSIONS [mm]

Modello	DN	L	H	h	D	b	a	f	N° fori	Peso [kg]
2FAA.B	25	160	124	84	115	18	85	14	4	11
	32	180	139	99	140	18	100	18	4	16
	40	200	165	102	150	18	110	18	4	18
	50	230	168	106	165	20	125	18	4	21
	65	270	183	125	185	22	145	18	8	30
	80	310	199	149	200	24	160	18	8	44
	100	350	178	172	235	24	190	22	8	53
	125	400	203	210	270	26	220	25	8	83

