

Models		DN	Kvs m ³ /h		Stroke [mm]
2-way	3-way		A-AB	B-AB	
VSB3T	VMB3T	3/4"	6,3	5,5	5,5
VSB4T	VMB4T	1"	10	9	
VSB5T	VMB5T	1 1/4"	14	11	
VSB6T	VMB6T	1 1/2"	18	7	
VSB8T	VMB8T	2"	25	17	



APPLICATION AND USE

VSBT two-way and VMBT three-way valves can be used for fluid control in industrial and residential air-conditioning, thermoventilation and heating plants and in machinery for product thermal process.

Three-way valves must be used only as mixers, angle way must never be employed for control purposes.

MANUFACTURING CHARACTERISTICS

G25 cast iron valve body.

Brass plug with Contoured-type profile on direct way and V-port profile on angle way.

CrNi steel stem. Female threaded connections.

Double EPDM O-ring stem packing.

TECHNICAL CHARACTERISTICS

Operating pressure	1600 Kpa max (16 bar)
Control characteristic	linear
Rangeability (Kvs/Kvm)	≥ 50
Leakage*	
VSBT	< 0,03% of Kvs
VMBT	direct way < 0,03% of Kvs angle way < 2% of Kvs
Connections	Female thread
Stroke	5,5 mm
Allowed fluids	
water	max temperature 95 °C min. temperature 5 °C
glycol-added	max 50%
Weight	See overall dimensions

*Leakage is measured according to the EN1349 standard.

OPERATION

The valve is normally closed (A-AB way).

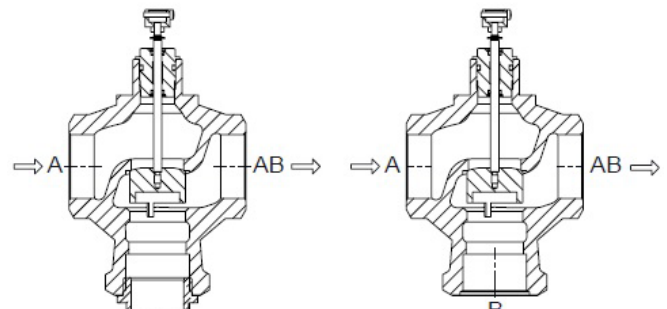
By pushing the stem inwards, the actuator opens A-AB way and, in three-way valves, it contemporarily closes the angle way B-AB

INSTALLATION

Before mounting, ensure pipes are clean, free from weld slag, perfectly aligned with the valve body and not subjected to vibrations.

As far as valve mounting positions are concerned, follow the instructions given in the actuator data sheets.

While mounting, respect the fluid directions indicated by the letters on the valve body (see fig. 1 and 2).



ACTUATORS

VSBT and VMBT valves are actuated by CONTROLLI MVTXXX actuators.

MAX DIFFERENTIAL PRESSURE (kPa)

DN	direct way	angle way
3/4"	900	700
1"	550	450
1 1/4"	350	300
1 1/2"	250	200
2"	190	160

DPmax = max differential pressure ensured by the actuator for normal operation.

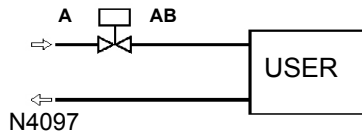
100 Kpa = 1 bar

To avoid wear problems between seat and plug keep differential pressure below 2 bar.

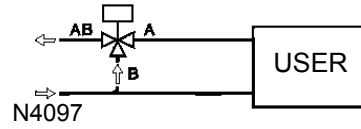
APPLICATION SCHEMES

VSB.T VALVES

a) Variable flow control to the user

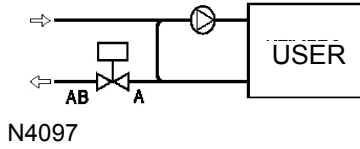


b) Constant flow control to the user in injection circuits

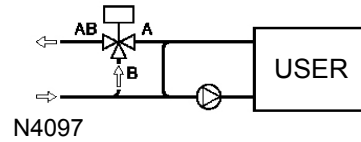


VMB.T VALVES

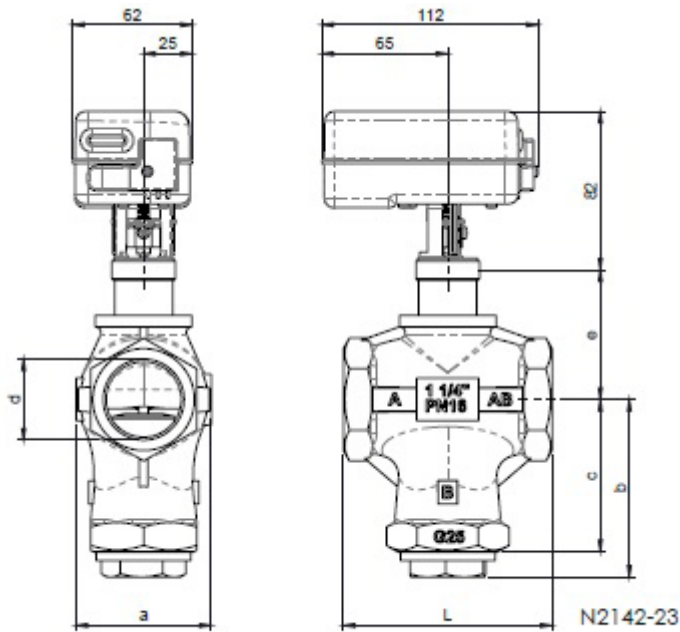
c) Variable flow mixing to the user



d) Constant flow mixing to the user in injection or tapping circuits



OVERALL DIMENSIONS [mm]



		Valve Dimension [mm]								Weight [Kg]
		VSB.T				VMB.T				
DN	Ød	L	a	e	b	L	a	e	c	
3/4"	G 3/4"	85	54	58	79	85	54	58	67,5	1,1
1"	G 1"	95	62	63	83	95	62	63	72,5	1,5
1 1/4"	G 1 1/4"	108	70	67	90	108	70	67	78,5	2
1 1/2"	G 1 1/2"	120	81	75	98	120	81	75	85,5	2,7
2"	G 2"	142	97	78	111	142	97	78	97	4

The performances stated in this sheet can be modified without any prior notice due to design improvements