

## V5832B/V5833A

### Small Linear Valves PN16

#### PRODUCT DATA



V5832B

V5833A

### GENERAL

These small linear valves are used in combination with small electric linear valve actuators for the control of hot and/or chilled water for fan coil units, small reheaters/recoolers in electric/electronic temperature control systems. Because of the pressure-balanced plug, the close-off pressure is equal to the system pressure.

### FEATURES

- Pressure balanced plug
- Range of fittings available for different connections
- Easy to mount, no tools required
- Flat sealing connections
- Flat surfaces on body to fit installation tools
- Standard external threads for Honeywell or field supplied fittings
- Adjustment cap for manual operation

### SPECIFICATIONS

Model	Two-way: V5832B Three-way: V5833A
Operation	Stem up to close port A to AB
Nominal pressure rating	PN16
Capacity index ( $k_{VS}$ )	see tables on page 2
Leakage rate	$\leq 0.05\%$ of $k_{VS}$
Valve body:	
Material	Brass resistant to dezincification
Size	DN25 (1"), DN32 (1 1/4"), DN40 (1 1/2")
Trim:	
Stem	Stainless steel
Plug	Brass
Suitable medium	Water, with max. 50% glycol
Controlled water temperature:	2...130°C
Rangeability	50:1
Flow characteristic	Linear for port A-AB, linear for bypass port B-AB
Stroke	6.5 mm
Dimensions	see Fig. 3 on page 4

## FLOW CAPACITIES AND CLOSE OFF PRESSURE RATINGS TWO-WAY VALVES

DN	k <sub>vs</sub>	order no.	close-off pressure (= max. operating pressure) in kPa for 300-N actuators (M6410C,L / M7410C1015 / M7410E1028)	close-off pressure (= max. operating pressure) in kPa for 400-N actuators (ML6435B / ML7430E / ML7435E)
25	4.0	V5832B2075	1600	1600
25	6.3	V5832B2083	1600	1600
25	10.0	V5832B2091	1600	1600
32	16.0	V5832B2109	1200	1200
40	25.0	V5832B2117	1000	1000

## THREE-WAY VALVES

DN	k <sub>vs</sub>	order no.	close-off pressure (= max. operating pressure) in kPa for 300-N actuators (M6410C,L / M7410C1015 / M7410E1028)	close-off pressure (= max. operating pressure) in kPa for 400-N actuators (ML6435B / ML7430E / ML7435E)
25	4.0	V5833A2076	600	1600
25	6.3	V5833A2084	600	1600
25	10.0	V5833A2092	600	1600
32	16.0	V5833A2100	300	1200
40	25.0	V5833A2118	--	1000

## OPERATION

A built-in return spring produces a closing force.

The valves are supplied with an adjustment cap for manual operation and to protect the stem. This allows the stem set up for filling or initial heating/cooling during the building construction phase without the use of a controller or actuator.

The small electric valve actuators provide automatic control during the opening and closing movement of the valve stem.

### TYPICAL OPERATION

All types of valves should be mounted in the return flow. If the  $\Delta p$ -values exceed 60 kPa, attention should be paid to the development of noise.

#### Two-Way Valves

Direction of flow always from port A to port B

Port B: Outlet

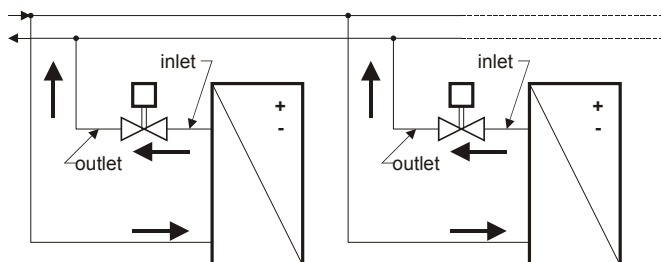


Fig. 1. Two-way valve operation

#### Three-Way Valves

These valves are preferably used as mixing valves, this means:

Port AB: Total flow outlet

Port A: Controlled flow inlet

Port B: Bypass inlet

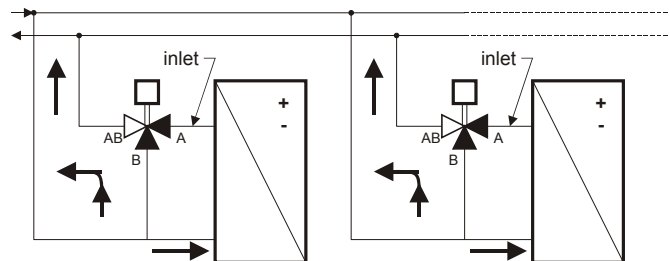


Fig. 2. Three-way valve operation

## MOUNTING


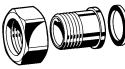

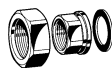
When installing the valve care must be taken that the flow direction is correct (see section "Typical Operation"). The valve must not be mounted with the stem pointing downward.

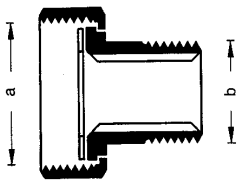
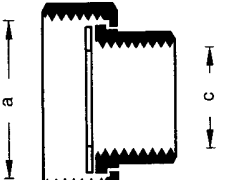
The adjustment cap must be removed from the valve only when the actuator is fitted. The valve should be installed as stress-free as possible with a tightening torque of 25 to 30 Nm.

The valve is supplied complete with mounting instructions. The water quality should meet VDI 2035 requirements.

## ACCESSORIES

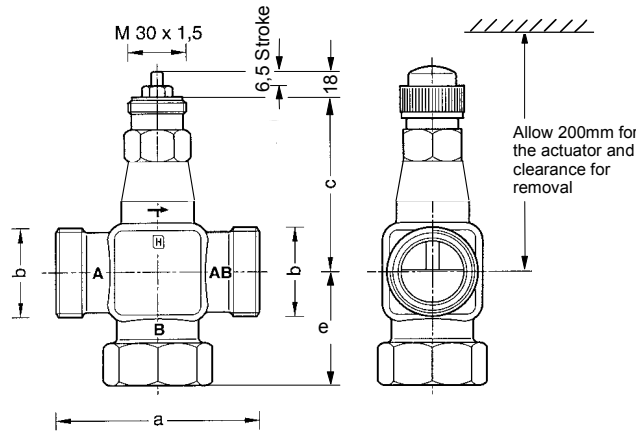
Valves V5832B need two connection sets, valves V5833A need three connection sets.

Connection	Pipe Size	DN	Order Number	Connection Set		Description
External Thread	R1" R11/4" R11/2"	25 32 40	AC-25T AC-32T AC-40T			Consisting of 1 union nut 1 tailpiece and 1 gasket
Internal Thread	Rp1" Rp11/4" Rp11/2"	25 32 40	AC-25TF AC-32TF AC-40TF			Consisting of 1 union nut 1 tailpiece and 1 gasket

Dimensions of Connection Sets				Order Number
	a	b	c	
	G11/2"	R1"		AC-25T
	G2"	R11/4"		AC-32T
	G21/4"	R11/2"		AC-40T
	G11/2"		Rp1"	AC-25TF
	G2"		Rp11/4"	AC-32TF
	G21/4"		Rp11/2"	AC-40TF

## DIMENSIONS

### V5832B



DN	a	b	c	d	e
25	105	G1 1/2"	92	52.5	62
32	105	G2"	92	52.5	62
40	130	G2 1/4"	98	65.0	77

### V5833A

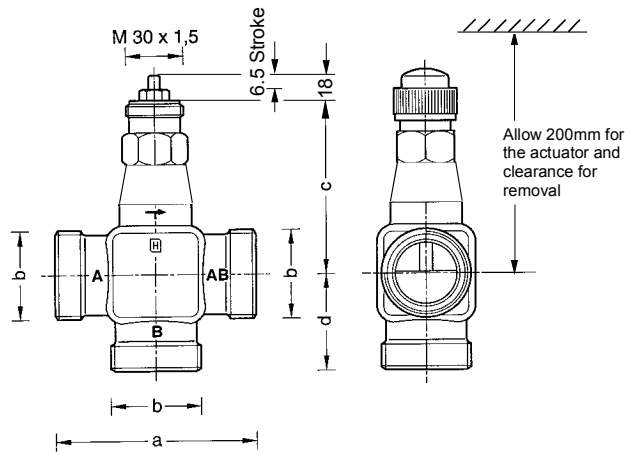


Fig. 3. Dimensions (in mm)

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