

***GEBWELL***

# Installation manual

## Change-over valve set VV1-VV5

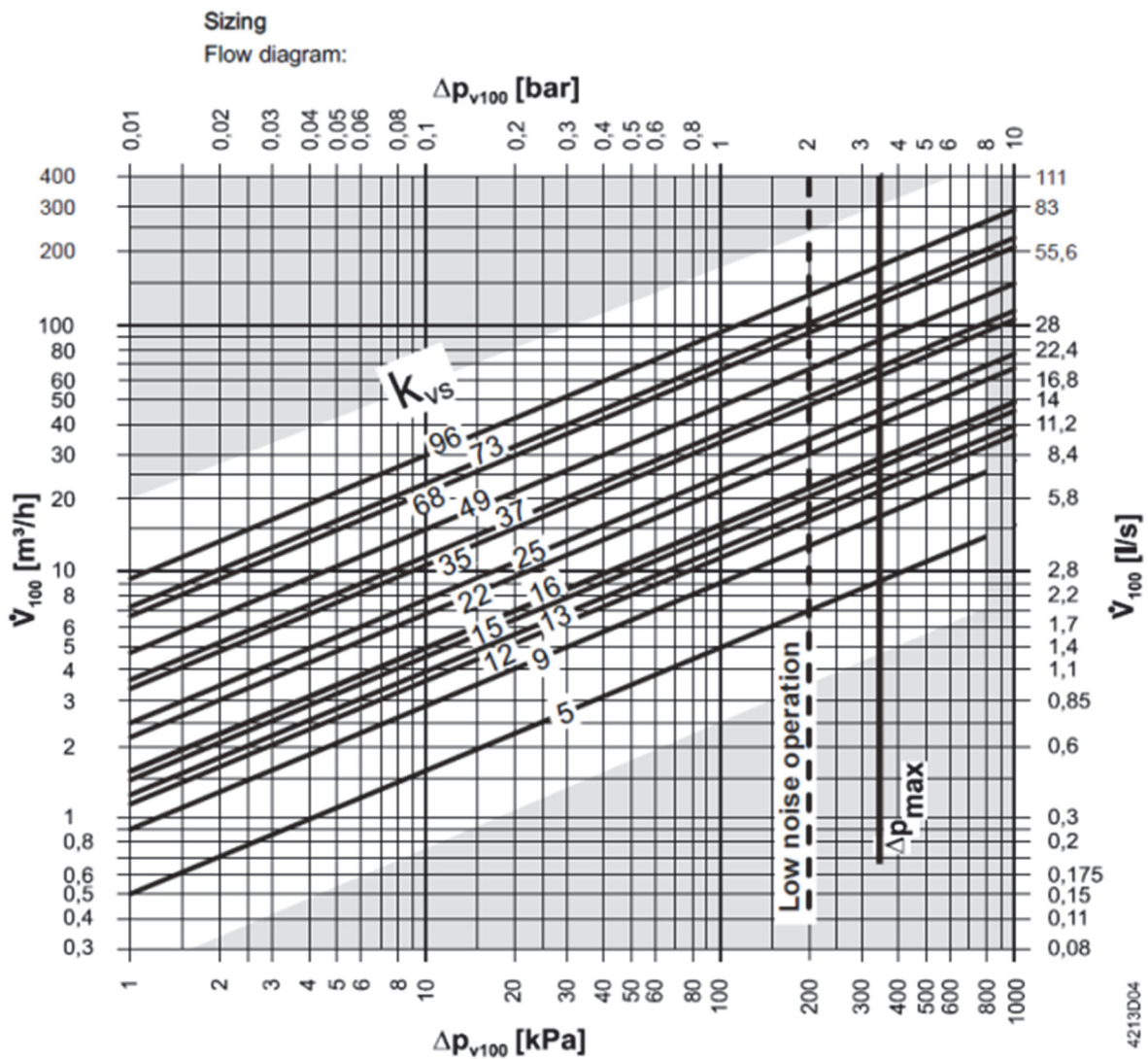


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## Change-over valve sets

Change-over valve set	Heat pump	Connection	Valve model	Actuator
VV1	6-8kW	22mm compression	LKA525 22	LKA EMV 110-M
VV2	10-13kW	28mm compression	LKA 525 28	LKA EMV 110-M
VV3	16-20kW	R1", internal thread	VRBI60.25-16T	GMA321
VV4	26-32kW	R1 1/4", internal thread	VRBI60.32-25T	GMA321
VV5	33-64kW	G 2", internal thread	VRBI60.50-73T	GMA321

## Change-over valve (VV3-5) flow diagram



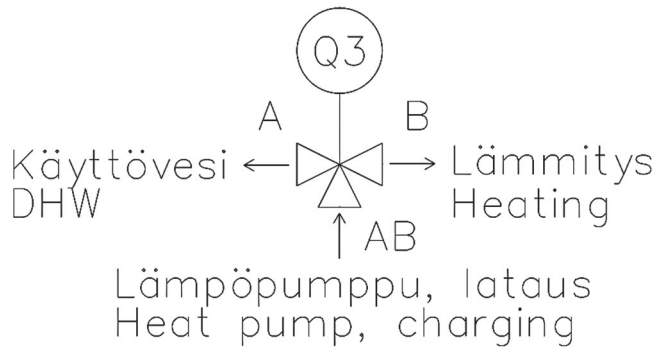
## Change-over valve installation

### Pipe coupling:

Change-over valve sets VV1 and VV12

Vaihtotenttiili/zone valve: LK525

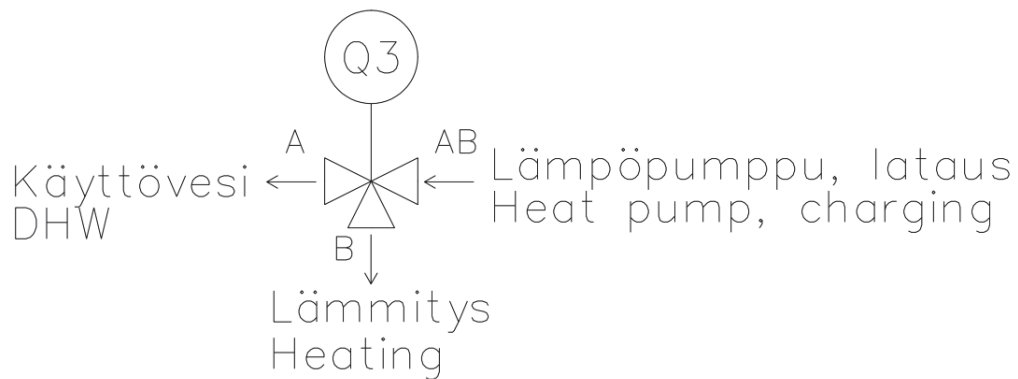
Toimilaite/actuator: EMV 110-M



Change-over valve sets VV1 and VV12

Vaihtotenttiili/zone valve: VRBI60.xx

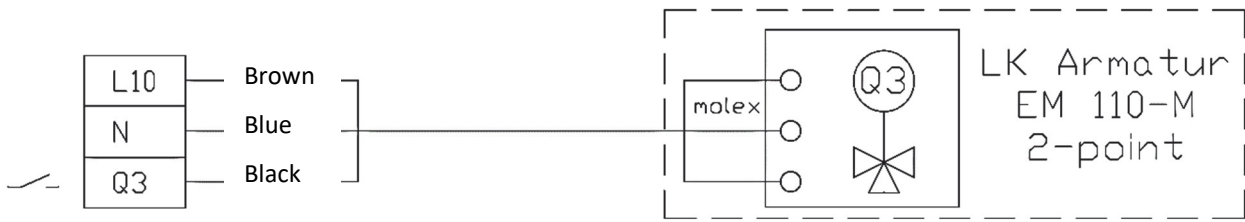
Toimilaite/actuator: GMA321



**\*\* If you need to alter the coupling of heating and domestic hot water, please refer to actuator manual and – ‘Changing the drive direction of actuator’.**

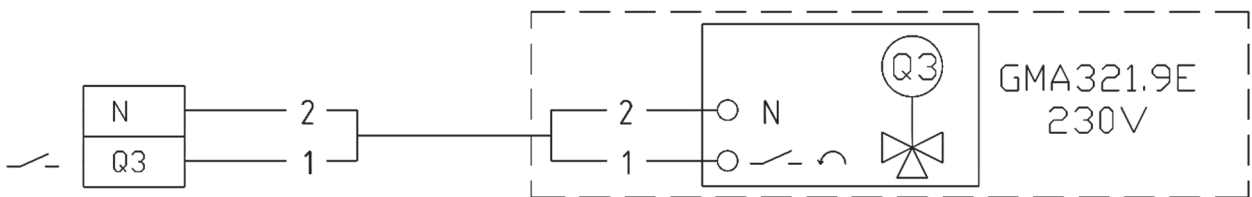
## Electrical connection of the actuator:

Change-over valve sets VV1 and VV2



Change-over valve sets VV1 and VV2

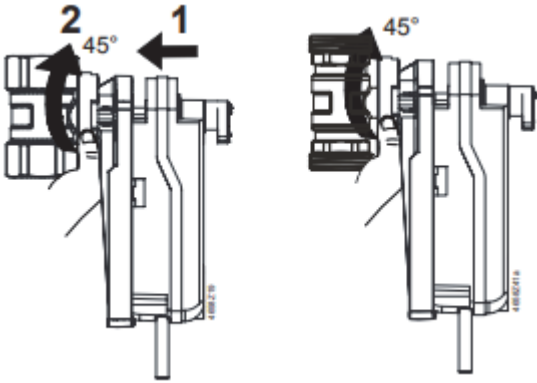
*The actuator has a spring return. The actuator is electrically driven to the charging position for domestic water. The valve is returned to heating position by a spring return after control is removed.*



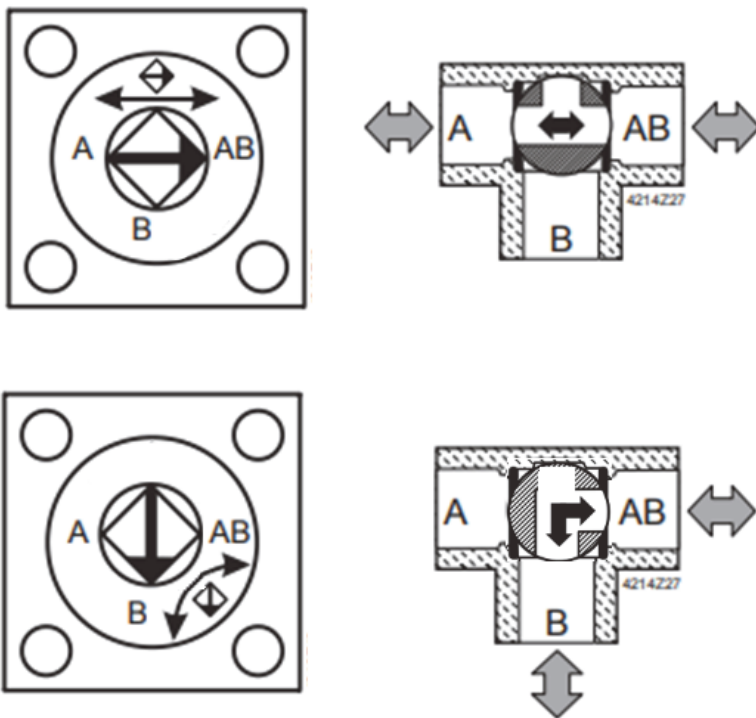
If the system comes with two change-over valves (output and return), the actuators shall be connected to work alongside.

## Actuator connection to valve

1. Place the actuator at the end of the valve
  - make sure that the valve is positioned correctly according to the motor
2. Turn the plastic locking ring 45° to lock the actuator into the valve



## Valve flow directions (VV3-VV5)



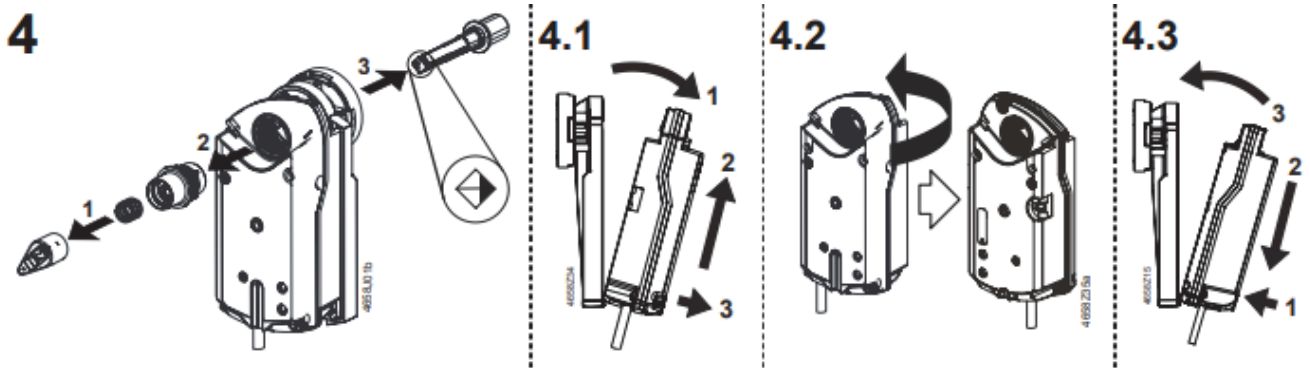
## Actuator drive direction change (GMA 321) \* change-over valve packages VV3-VV5

The change in actuator drive direction does not require electrical wiring.

If the flow direction of A and B has to be replaced between heating and domestic water, the GMA actuator must be turned around (180°).

When there is no control on in the actuator, it is always in the *HEATING* position (the spring will return the actuator to the heating position).

Adjust the valve in the correct position before installing the actuator.



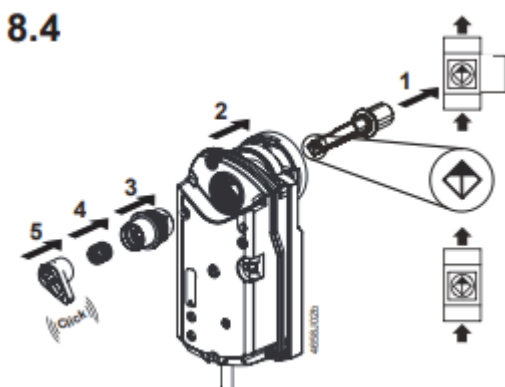
**i** Make sure that the actuator does not have domestic water control on (actuator in sleep mode)

1. Remove the actuator lock and the spring from the valve adapter
2. Remove the mounting sleeve from inside the actuator
3. Remove the actuator from the valve so that the fit spindle is caught in the valve's turn spindle

4.1 Remove the motor from the mounting plate as seen in the image.

4.2 Turn the motor 180°

4.3 Attach the motor to the mounting plate as seen in the image

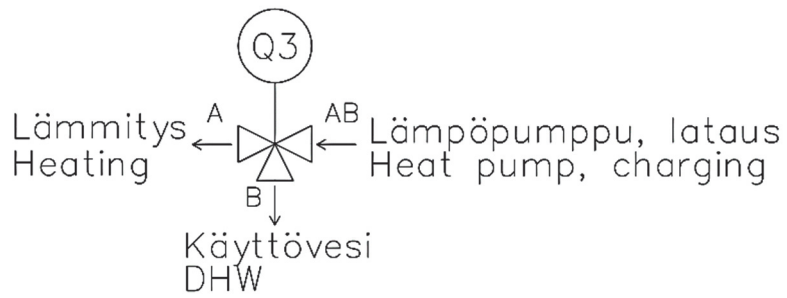


8.4 Attach the actuator to the valve as seen in the image. Make sure that the valve is in the correct position before attaching the actuator (arrow AB towards the branch).

After changing the drive direction of the actuator, connect the tube according to the instructions below.

Vaihtventtiili/zone valve: VRBI60.xx

Toimilaite/actuator: GMA321



### Permitted mounting directions for change-over valves

