

Regulus

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VZK R 3xx-230-1P

**Installation and Operation Manual
3-WAY ZONE BALL VALVE WITH ACTUATOR
VZK R 3xx-230-1P**

EN

VZK R 3xx-230-1P

1. INTRODUCTION

The 2-point control valve with actuator is intended as a zone valve for heating and solar thermal systems. During shifting, the valve does not interrupt the fluid flow through the joint valve neck. It cannot be used in systems with gravity circulation. It can be used in connection with any controller that is fitted with a 230 V switching contact. In case of a controller failure, the actuator can be operated manually. The actuator can be removed without the necessity to dismount the valve. The actuator is fastened to the valve by four M5 nuts (#8 spanner). Available variants and their codes are shown in the table below:

Code	13603	13604
Designation	VZK R 320-230-1P	VZK R 325-230-1P
Connection	3 x G 3/4" F	3 x G 1" F
Kvs	13.1 m ³ /h	14.3 m ³ /h
Weight	1.6 kg	1.7 kg

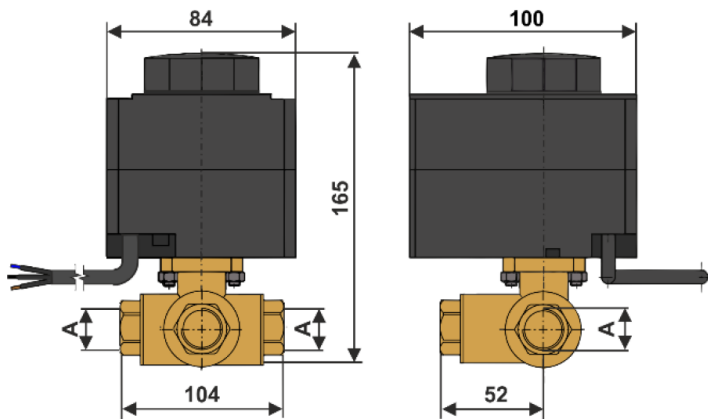
2. PARAMETERS

Technical Data	
Max. working pressure	16 bar
Max. fluid working temperature	110 °C
Shift time	60 s
Opening angle	90°
Ambient working temperature	0° to 40 °C
Max. pressure difference	10 bar

Electric data	
Power supply	230 V 50 Hz
Max. power consumption	4 VA
Max. current	17 mA
Torque	5 Nm
IP rating	IP42
Protection class	II
Power cable cross section area	3 x 0.5 mm ²
Power cable length	2 m

Materials	
Valve housing	Brass CW617N
Valve spindle	nickel-plated brass
Valve ball	chrome-plated brass
O-rings	FPM
Gasket	PTFE
Power cable	PVC

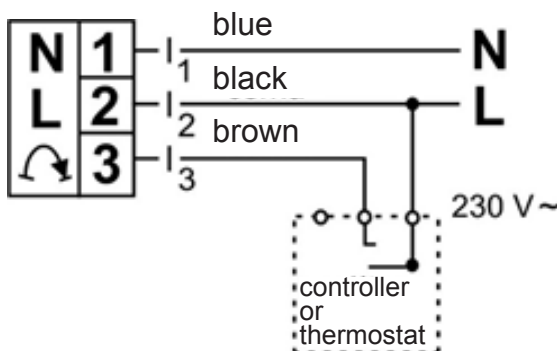
3. DIMENSIONS



Code	Dimension A
13603	G 3/4 F
13604	G 1" F

4. ELECTRICAL WIRING

The actuator is controlled by a normally open contact from a controller or thermostat (single-pole wiring). The actuator will be shifted by applying voltage to the control phase (brown wire). After disconnecting the voltage from the control phase the actuator will return to its initial position by means of an electric motor – for this reason a permanent live (black wire) needs to be wired to the actuator, see the diagram below.

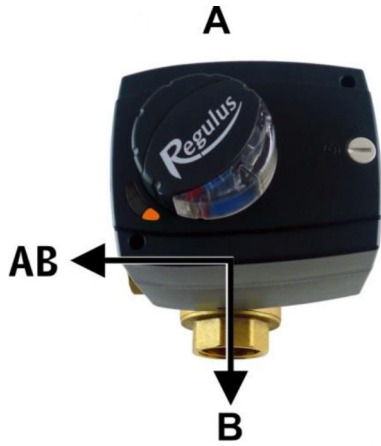


5. VALVE POSITION

The actuator is preset to turn right (clockwise) as default. When voltage is applied to the control phase (brown wire), the actuator shifts (rotates clockwise). When voltage is disconnected from the control phase, the actuator returns to its initial position.

Direction of rotation set to **clockwise**:

Control phase without voltage:
The indicator is blue



INITIAL POSITION

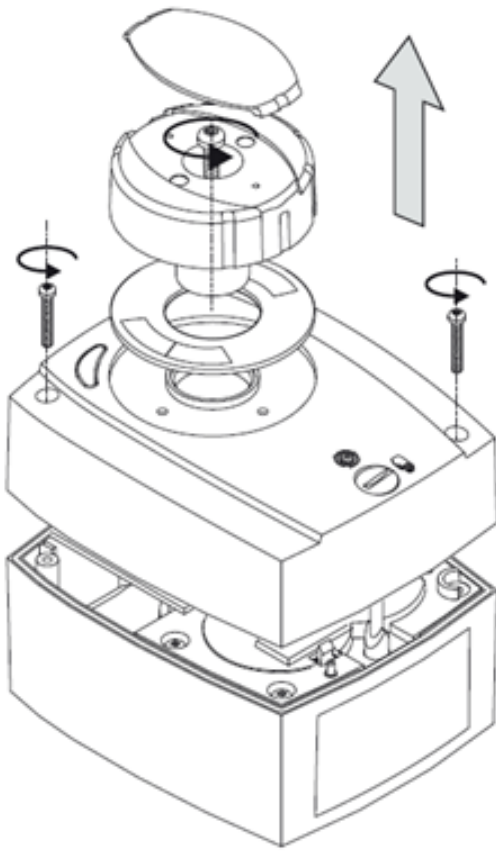
Control phase with voltage applied:
The indicator is red



AFTER TURNING CLOCKWISE

6. HOW TO SET THE DIRECTION OF ROTATION

When needed, the right (clockwise) actuator rotation can be changed to left (anti-clockwise) using a special jumper.

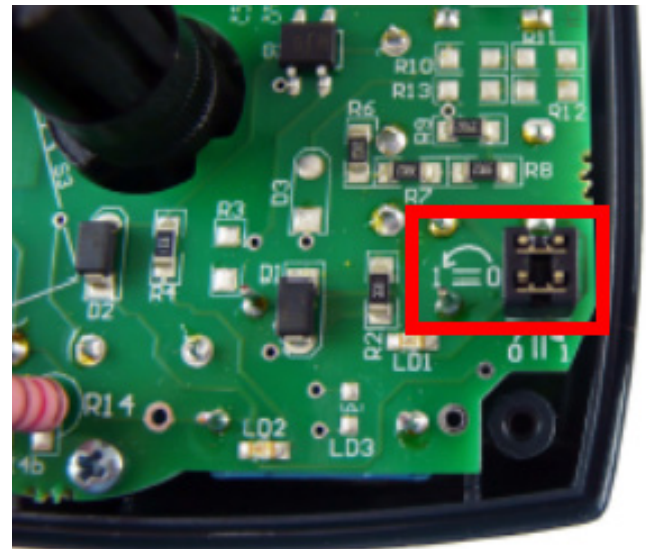


1. Remove the actuator's front cover

2. The sense of rotation is set by a jumper, its position is marked by the red frame.



3. If the jumper is placed vertically, the actuator is set to rotate right (clockwise).



4. If the jumper is placed horizontally, the actuator is set to rotate left (anti-clockwise). Having placed the jumper to your desired position, reinstall the front cover.

Now it is necessary to turn the valve spindle 90° right so that the path A-AB is completely open in the initial position. Also the actuator, switched to manual control (see Chapter 8), shall be turned 90° right so that the indicator visible through the sight glass of the knob is red.

Now when voltage is applied to the control phase (brown wire), the actuator shifts (rotates anti-clockwise). When voltage is disconnected from the control phase, the actuator returns to its initial position.

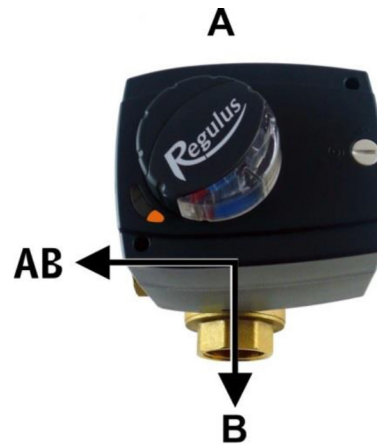
Direction of rotation set to the **left**:

**Control phase without voltage:
The indicator is red**



INITIAL POSITION

**Control phase with voltage applied:
The indicator is blue**



AFTER TURNING ANTI-CLOCKWISE

7. INSTALLATION

For permitted installation positions see the pic. below.



8. ACTUATOR CONTROL AND OPERATION



WARRANTY CERTIFICATE

3-way zone ball valve with actuator

VZK R 3xx - 230 - 1P

Seller: Date of Purchase:

WARRANTY CONDITIONS

1. The Seller grants the Buyer a Guarantee period of 24 months from the date of purchase.
2. The product will be installed and commissioned by a competent company or a person trained by the manufacturer
3. When claiming warranty, this Warranty Certificate must be submitted together with the purchase receipt.
4. The warranty is valid only when the technical conditions set by the Manufacturer, installation manual and instructions in the documentation and on the product itself are maintained.
5. The warranty does not cover defects caused by external conditions or improper working conditions, defects caused by normal wear and tear, further when the product is not used in compliance with its purpose and when the defect was caused by mechanical damage to the product, improper handling, tampering by a third person, improper installation, improper stocking, natural disaster etc.

COMMISSIONED BY

Company:

Date:

Rubber stamp print and signature of the installer: