

RESOL VA22

Mounting

Connection

Maintenance

Example



48002620

Thank you for buying this RESOL product.
Please read this manual carefully to get the best performance from this unit.

VA22



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Ball valve with electric motor**Safety advice**

Please pay attention to the following safety advice in order to avoid danger and damage to people and property.

Please pay attention to appropriate usage of the product (see page 3). Improper use excludes all liability claims.

Instructions

Attention should be paid to

- valid local regulations
- the statutory provisions for prevention of industrial accidents,
- the statutory provisions for environmental protection,
- the Health and Safety at Work Act 1974
- Part P of the Building Regulations 2005
- BS7671 Requirements for electrical installations and relevant safety regulations of DIN, EN, DVGW, TRGI, TRF and VDE.

These instructions are exclusively addressed to authorised skilled personnel.

- Only qualified electricians should carry out electrical works.
- Initial installation should be carried out by qualified personnel named by the manufacturer

Subject to change without prior notice.
Errors excepted.

Contents

Safety advice	2
Technical data and function	3
1. Manual adjustment	3
2. Dimensions	4
3. Installation position	4
4. Installation instructions	5
4.1 Installation scheme	5
5. On-off control	5
6. Technical description RESOL VA22	6
7. Example	6
Imprint	8

Ball valve with electric motor

Technical Data

Drive

Rated voltage: 230 V~, 50 Hz**Motor:** synchronous motor**Load of limit switch:** 5(1)A, 250V~, 50 Hz**Rated power:** 7,5 VA max.**Insulation class:** II insulated**Protection type:** IP44**Actuation time:** 30s / 90°**Mode:** open - closed**Ambient temperature:** 0° C ... +50° C**Torque** 6 Nm (max. 8 Nm)**Electrical connection:** control line 4 x 0,5 mm²

Valve

Temperature of the medium: 0° C ... +120° C**Rated pressure:** PN 15 (max. PN 16)**Valve connection:** IT on both sides of the valve connection**Flow:** full flow, corresponding to the nominal width NW.**Valve body:** pressed brass (CuZn40Pb2)**Valve connection:** brass (CuZn40Pb2)**Valve spindle:** brass (CuZn40Pb2)**Valve ball:** brass, hard chromium-plated**Ball seal:** PTFE ring-Teflon sealing**Spindle seal:** 1 x O-ring EPDM, 1 x O-ring Viton and 1 x O-ring PTFE**Sealing spindle to vail:** 1 x O-ring EPDM, the axial pressing between valve spindle and slot can be compensated for by means of another sealing

VA22

Area of application:

The 2-port motor-driven ball valve RESOL VA22 is produced according to international standards and offers universal fields of application in heating-, warm water-, solar- and irrigation systems. A large number of application possibilities in the field of energy distribution is provided to the user.

Characteristics:

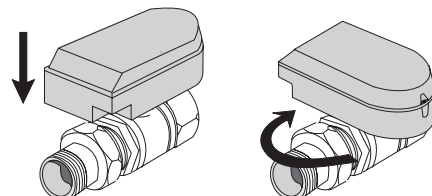
Compact size, modern design, insulated actuator-housing. Simple manual control for commissioning or emergency operation. Electrical universal connection through integrated relay (220 ... 240 V~).

The valve is supplied as normally open, but can easily be changed to normally closed by pushing and turning the valve head through 90° relative to the body as shown in the diagram.

The valve changes position when the black wire is energised. The brown must be connected to a permanent live. The red wire is a control signal output that can be used for control purposes (max. 1 A). The position of the ball valve is visible with the white indicator flag. The actuator can be quickly replaced without disassembly. The DN20 and DN25 versions offer full bore flow.

1. Manual adjustment

1. Press actuator against the valve
2. Put actuator in desired position (indicator open- closed). The actuator latches if you release it. For automatic operation, put it back to the original position.

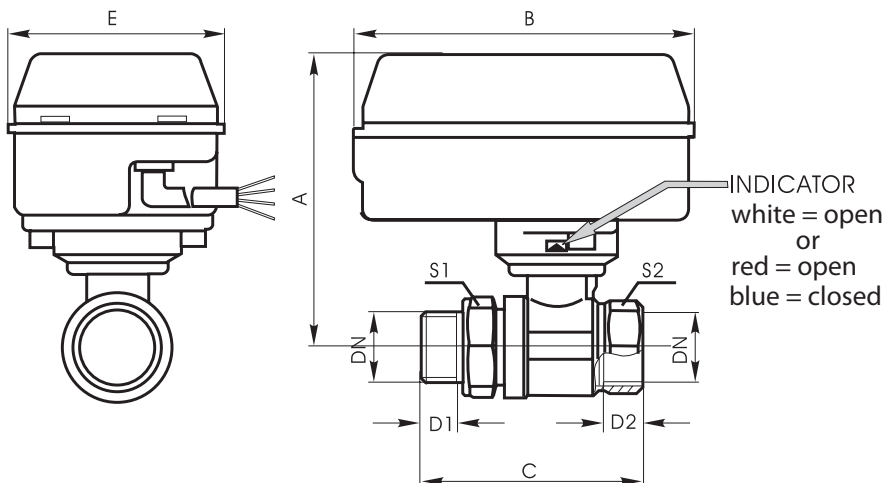


After the valve has been manually adjusted, it has to be put back into the original position.

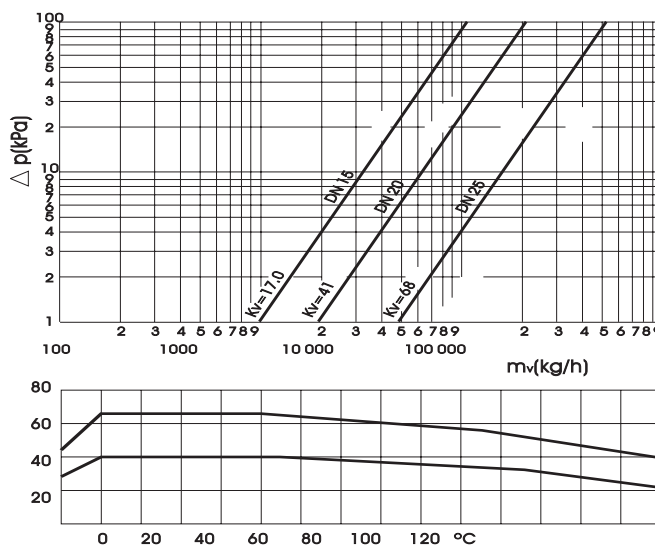


Ball valve with electric motor

2. Dimensions

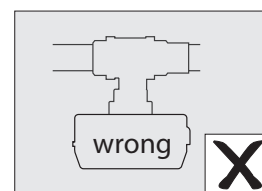
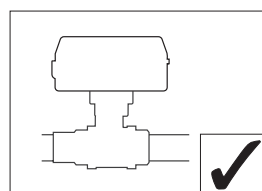
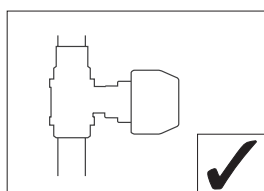
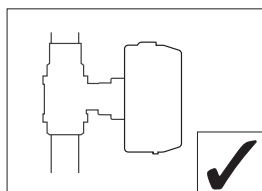
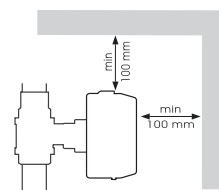


DN	20	25
A	108	110
B	125	125
C	90,5	105
D1	13	14
D2	12,3	14
E	78	78
S1	37	47
S2	31	38



3. Installation position

The valve can be mounted in any position (see figure below), but should not face downwards. A cable loop of about 25 cm is required for +/- 90° manual operation. In order to have enough space to carry out maintenance work, a distance of at least 100 mm should be kept between the valve and the walls or other devices.



Ball valve with electric motor

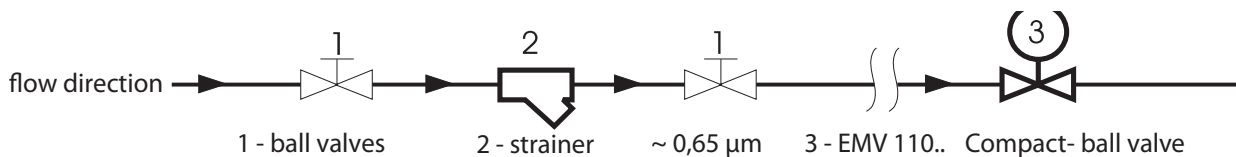
4. Installation instructions

The installation of the valve must be carried out in accordance with the approved technical regulations. Ensure excess sealing material, tape etc does not enter the valve body. In order to avoid blocking of the valve ball, pay attention to the following advice and avoid all soldering, or welding processes close to the valve.

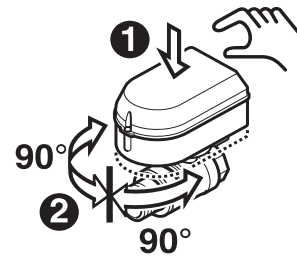
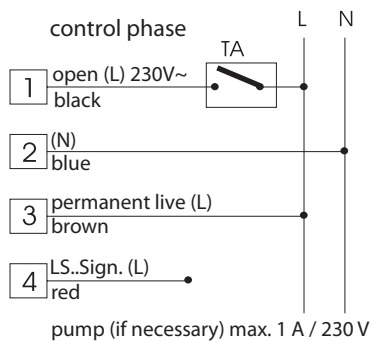
Important note!

In order to attain the maximum operating safety and reliability, we recommended flushing the system and inserting an appropriate strainer (0,65 µm) in front of each valve (see installation scheme). Please pay attention to the valid local regulations.

4.1. Installation scheme



5. On-off control (with phase L)



cable loop is required for 90°/-manual operation

WARNING!



Fuse the operating voltage with external fuse max. 2 A. Red limit switch lead is bared and carries voltage when the valve is in the open position!

Ball valve with electric motor

6. Technical description RESOL VA22

The actuator is attached to the ball valve by means of a hexagon nut (5). Therefore, the actuator can be easily removed from the ball valve for maintenance work. The O-rings can be maintained. This guarantees high operating safety and reliability.

The unit can be easily mounted in the following order:

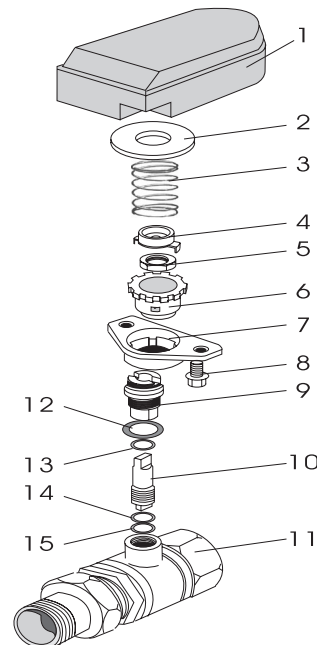
- A Unscrew the two screws M6 (8), remove the actuator (1) from valve body (7)
- B Remove washer (2)
- C Remove spring (3), lift the indicator (4)
- D Unscrew the hexagonal nut (wrench size M21) (5), remove housing support (7) from valve
- E Unscrew stuffing box screw (9)
- F Pull spindle (10) out of the valve
- G The O-rings are then accessible and can be maintained or replaced.

Please carry out assembly in reverse order.

O-Rings:

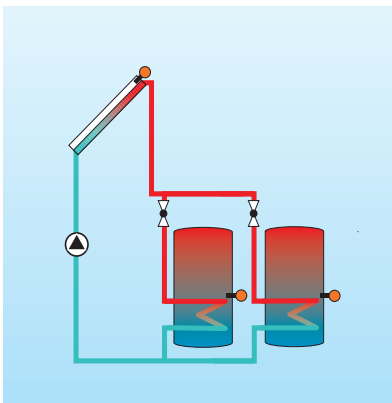
- (12) 14 x 1.78 - EPDM
- (13) 12 x 10 x 1 - PTFE
- (14) 8.73 x 1.78 - EPDM
- (15) 8.73 x 1.78 - Viton

When the valve is in the open position, the indicator is on white or on red respectively. The structure of the ball sealings allows the valve to close smoothly and with a very low torque. This allows precise positioning and leak tightness and guarantees high operating safety and reliability of the ball valve.

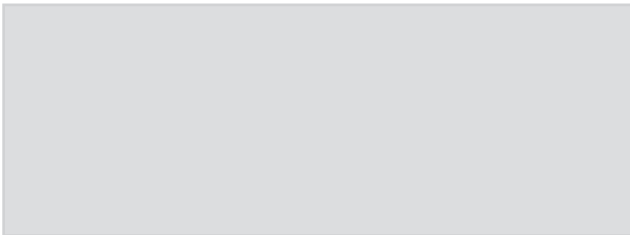


7. Example

Solar thermal system with
1 collector and 2 stores



Notes

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We took a lot of care with the texts and drawings of this manual and to the best of our knowledge and consent. As faults can never be excluded, please note: Your own calculations and plans, under consideration of the current standards and DIN-directions should only be basis for your projects. We don't offer a guarantee for the completeness of the drawings and texts of this manual - they only represent some examples. They can only be used at your own risk. No liability is assumed for incorrect, incomplete or false information and/or any resulting damages.

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