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4-way rotary mixing valves ARV ProClick

Art.-No 13 482 10, 13 484 10, 13 485 10,
13 486 10, 13 487 10

NOTICE!

This instruction manual is also available on www.afriso.pl.

WARNING!



The product may only be mounted, commissioned and disposed of by qualified, specially trained staff.

Alterations performed by unauthorized staff may cause a threat and are forbidden for safety reasons.

APPLICATION

4-way rotary mixing valves are commonly used with solid fuel boilers, as mixing valves which simultaneously increase the temperature of the water returning to the boiler. They can be also successfully utilized in systems with cast iron gas or oil boilers.

DESCRIPTION

4-way rotary mixing valves ARV ProClick with inner threads are made of brass. The connections have octagonal shape. The valves have knobs for manual operation and rotation angle limiters. The scale on top of the knob is printed on one side with "from 0 to 10" and on the other "from 10 to 0", so one can mount the valve in various positions. The thicker knob part shows the sleeve position inside the valve. The knob itself is made from a non-slip material. The durable plastic parts under the knob are used to mount the ARM ProClick actuator on the valve. The ProClick system does not require any tools. ARV ProClick valves require low torque.

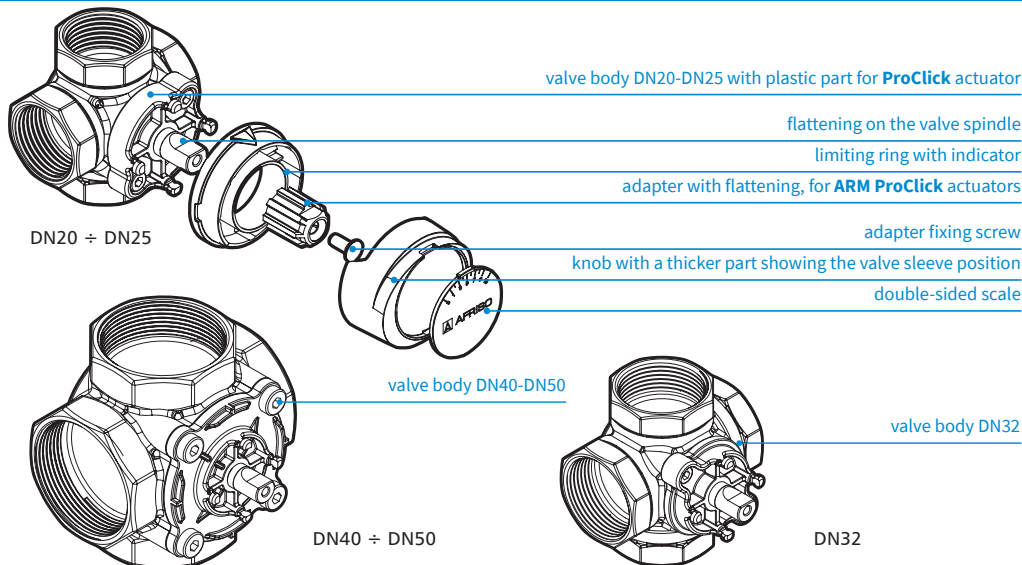
TECHNICAL DATA

Parameter / piece	Value / description
Working temperature	5-110°C
Working pressure	max 10 bar
Differential pressure	max 1 bar
Body	brass CW617N
Sealing	EPDM
Leak rate ($\Delta p=50$ kPa)	max 1,5%
Rotation angle	90°
Required torque	max 1 Nm
Glycol concentration	max 50%

APPROVALS AND CERTIFICATES

The rotary mixing valves ARV ProClick comply with the Pressure Directive PED 2014/68/EU and according to article 4.3 (sound engineering practice) must not wear the CE mark.

Drawing 1. Construction



MOUNTING

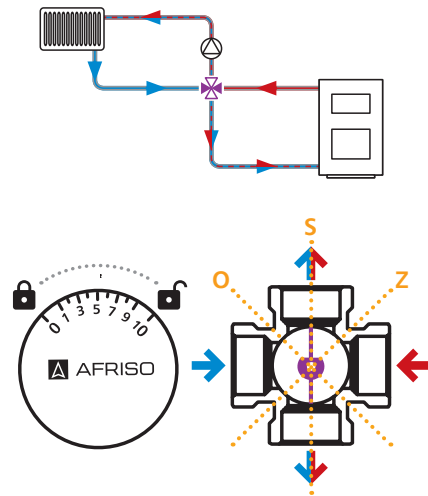
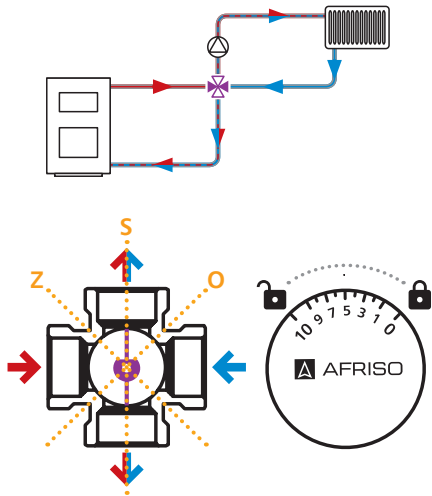
Notice! The flattening on the spindle of the valve and on the adapter mounted on it (Drawing 1) indicates the middle of the obturator inside the valve (Drawing 2a and 2b).

The ARV ProClick valve is delivered with mounted knob, blue ring and scale. Not to damage the plastic elements, we suggest to disassemble the scale, knob and blue limiting ring before mounting the valve. These parts are mounted on latch. When having trouble with dismounting the knob, one can gently pry it up with a flat screwdriver. Next mount the valve in the system. When the valve is in place, set it and assemble the plastic components, as follows:

- Determine the working range of the obturator inside the valve and the closing direction (Drawing 2). First determine the hot water inlet from the boiler, system outlet, system return and boiler return. Next set the obturator exactly in the middle of the system outlet and boiler return (Drawing 2 - "s" axis). This means the valve is open in 50%. The obturator must work in the range of +/- 45° from that position.
- Determine the closing direction of the valve and choose the right side of the scale. A 4-way valve is closed when the hot water from the boiler is flowing completely to the return of the boiler (Drawing 2a and 2b - "z" axis). The indicator coincides with position "0" on the scale. Depending on the exact system, closing the valve can mean turning the obturator left (Drawing 2a) or right (Drawing 2b). A 4-way valve is open when the hot water from the boiler is supplying the system outlet (Drawing 2a and 2b - "o" axis). The indicator coincides then with position "10" on the scale. Depending on the exact system, opening the valve can mean turning the obturator right (Drawing 2a) or left (Drawing 2b). A double-sided scale is delivered with the ProClick valves. It is printed "from 0 to 10" on one side and "from 10 to 0" on the other. Choose the correct side following the rule:
 - if the valve is closed turned right (clockwise) choose the scale "from 0 to 10",
 - if the valve is closed turned left (counter-clockwise) choose the scale "from 10 to 0".
- Put on and latch the blue limiting ring on the valve, which was set according to point 1. The indicator should point directly on the middle of the flattening on the spindle and adapter (Drawing 3).
- Lock the knob on the adapter. It fits only in one position (Drawing 4).
- Put the lid with the chosen scale (Drawing 5) on the knob. To lock the lid first put the smaller inset in the hole inside the knob and then press the lid down.
- Check if the valve works properly.

Drawing 2a. Choosing the scale

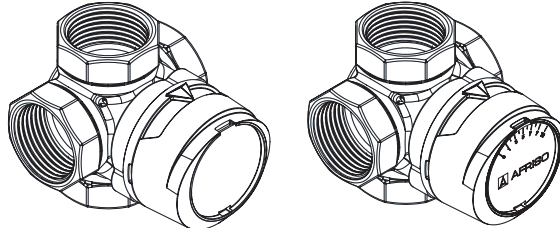
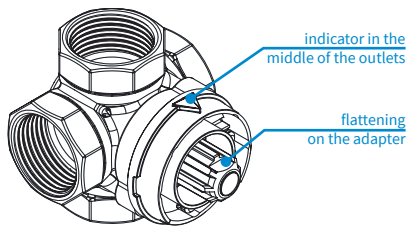
Drawing 2b. Choosing the scale



Drawing 3. Mounting the blue ring

Drawing 4. Mounting the knob

Drawing 5. Mounting the scale



USING THE VALVE

Drawing 6. ProClick system

1. Position of the knob with scale

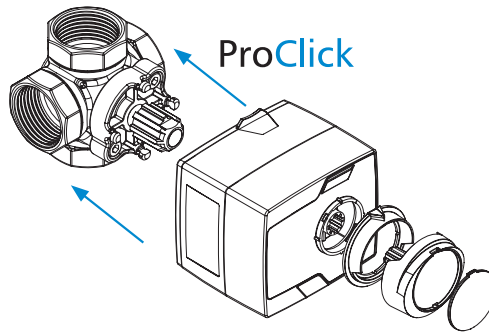
After the valve was properly mounted and set, position "0" will mean the valve is totally closed (hot water closed) and position "10" – the valve is fully open (hot water open). Every other position means a percentage opening (e.g. "4" means valve open in 40%).

2. Position of the sleeve inside the valve

The middle of the thicker raised part of the knob indicates the position of the obturator inside the valve. It makes checking the work of the valve easier after mounting.

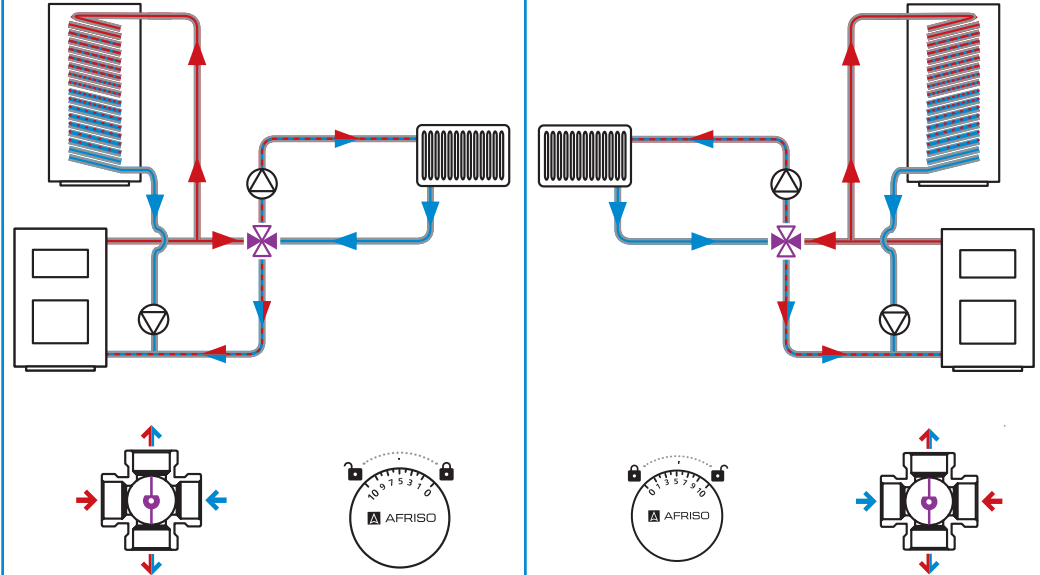
3. Mounting the electric actuator ARM ProClick

Under the knob of the valve there is always an adapter for ARM ProClick electric actuators. Thanks to the ProClick system (Drawing 6) one needs only to take off the knob and blue limiting ring and slide the actuator onto the valve. The mechanism will lock itself on the valve.



EXAMPLE APPLICATIONS

More applications can be found on www.afriso.pl or in the Technical brochure.



MAINTENANCE

The ARV ProClick valve is a maintenance-free product.

DISMOUNTING, DISPOSAL

1. Dismount the device.
2. To protect the environment, this product must not be disposed of together with regular household waste. Dispose of the product according to local directives and guidelines. This device consists of materials that can be reused by recycling companies.

WARRANTY

The manufacturer's warranty for this product is 36 months after the date of sale from AFRISO sp. z o.o.. In case of any alteration in the product or usage against this instruction manual, the warranty becomes void.

CUSTOMER SATISFACTION

For AFRISO sp. z o.o. customer satisfaction is the prime objective. Please contact us if you have any questions, suggestions or problems concerning our product: zok@afriso.pl, +48 32 330 33 55.