

# K274-2



Energy  
Management



Radiant  
Systems

## Proportional actuator K274Y072 for 6-way zone valves R274, R274N, R274C

Datasheet  
1024EN 05/2022



Proportional quick-connection actuator for Giacomini 6-way zone valves.

### ➤ Versions and product codes

PRODUCT CODE	POWER SUPPLY	COMPATIBILITY WITH 6-WAY ZONE VALVES
K274Y072	24 Vac/dc $\pm$ 10 %; 50 Hz	R274, R274N, R274C

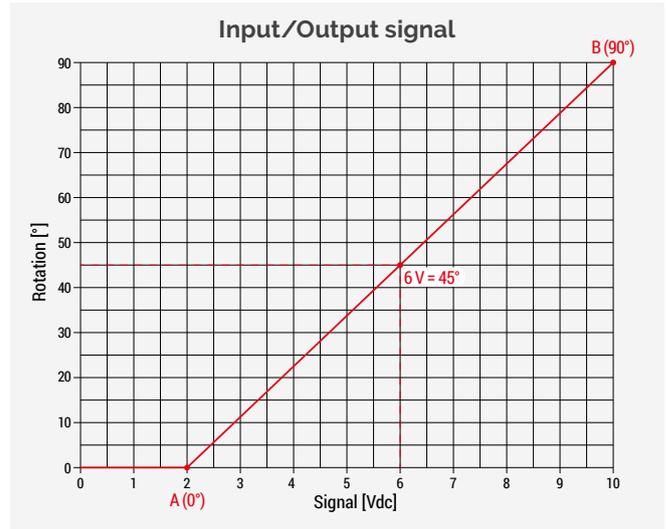
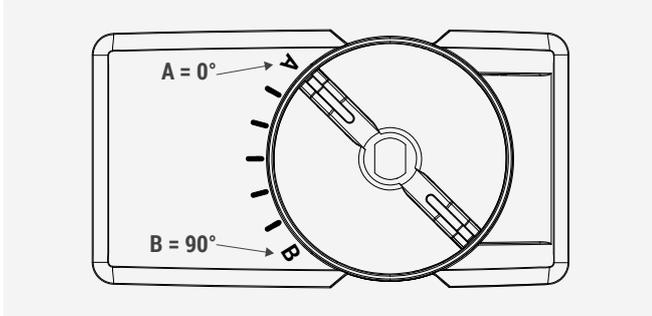
### ➤ Technical data

- Type of command: 2÷10 V
- Rotation angle: 90°
- Opening time: 60 s
- Maximum torque: 10 Nm
- Electric absorption: 4,5 VA, 5 W
- Max current on signal 2÷10 V: 0,5 mA
- Inlet impedance: 21 k $\Omega$
- Rotation: counterclockwise (default) - adjustable in clockwise
- Insulation class: III
- Protection degree: IP54
- Room working temperature range: 0÷50 °C
- Room working humidity: 5÷95 % with non-condensing R.H.
- Storage temperature range: -20÷70 °C
- Electric cable length: 1 m (6 x 0,5 mm<sup>2</sup>)
- Valve body fixing: quick-connection compatible with ISO 5211 - F04; 9 mm square
- Possibility of manual control with maneuvering knob
- Weight: 600 g

## Operation

When starting for the first time, the system enters "reconnaissance" mode for about 10 seconds. During this phase it will detect the position of the encoder inside the actuator and if there is a request for inversion of the "0" point. Then, the actuator moves to the corresponding position on the receipt of the voltage signal.

It is possible to detect the position of the actuator at any time by observing the visual indicator or via the available feedback signal ( $2\text{ V} = 0^\circ / 10\text{ V} = 90^\circ$ ).



**NOTE.** On the left are the diagram and the image of the actuator relating to the default configuration (gray and pink wires not connected - see paragraph "Electrical connections").

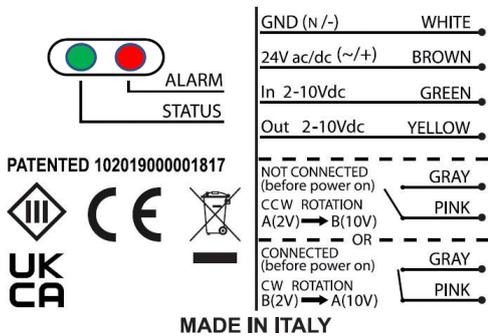
## Electrical connections

**WARNING.** Ensure that the power supply is suspended while the connections are being carried out.

**WARNING.** Make and check the electrical connections before powering the system. Short circuits or incorrectly connected cables could cause permanent damage to the electrical components of the actuator.

24Vac/dc 5.5VA/5W  
60°x90°  
T50°C

Working Torque 3Nm  
Peak Torque 10Nm  
IP54



WHITE	Common
BROWN	24 V power supply
GREEN	Input signal 2÷10 V
YELLOW	Output signal 2÷10 V OPTIONAL CONNECTION
GRAY PINK	If not connected: counterclockwise rotation (default) If connected: clockwise rotation

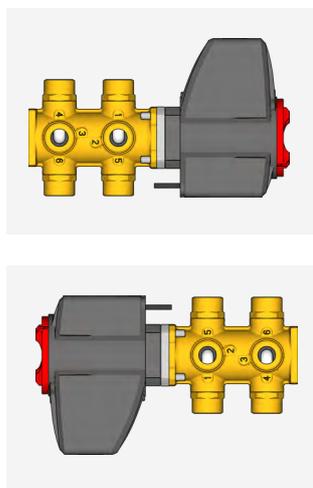
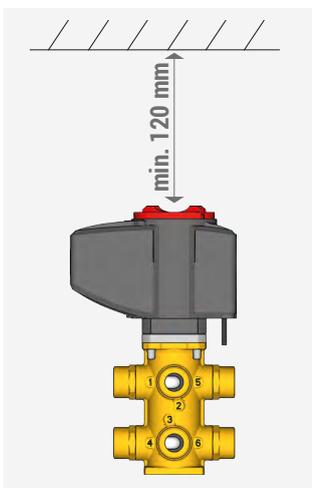
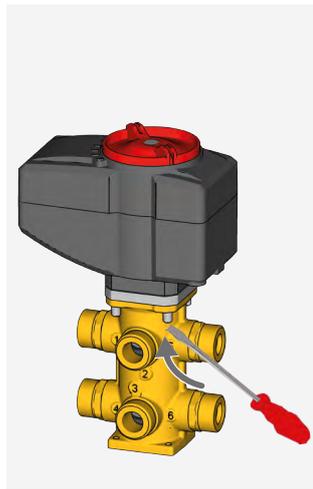
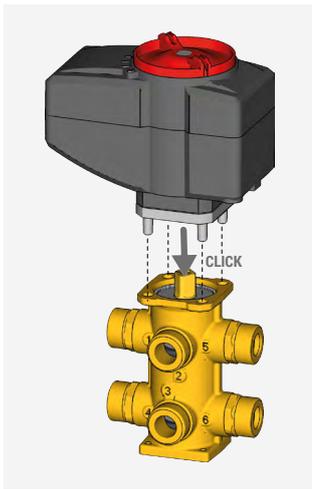
**NOTE.** The gray and pink wires allow the installer to change the "0" point of the actuator and then reverse the rotation from counterclockwise to clockwise.

**NOTE.** The gray and pink wires do not require any type of external power supply; if they are not used, it is recommended to protect them.

	LED		DESCRIPTION
	GREEN	RED	
● ●	OFF	OFF	Actuator not powered or faulty.
● ●	FIXED ON	FIXED ON	System startup (duration 10 s).
● ●	FAST BLINK	OFF	The actuator is executing the movement command to the desired point.
● ●	1 BLINK + LONG PAUSE	OFF	The actuator has reached the desired position and is waiting for the next command.
● ●	ALTERNATE BLINK	ALTERNATE BLINK	Power supply voltage below 13 V. The actuator remains stationary in the position and waits for the power supply to return above the value of 14 V. It is not necessary to switch the system off and on again to restore actuator operation.
● ●	OFF	2 BLINKS + LONG PAUSE	Positioning timeout. The actuator has not reached the position within 140 s and stops. In order to reset the alarm, the system must be turned off and on again.

**NOTE.** Any other combination of LED activation indicates a system failure

## Installation

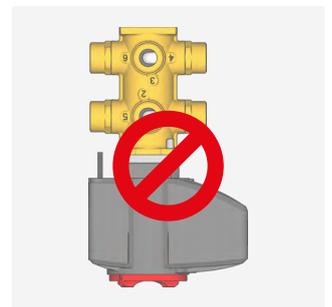
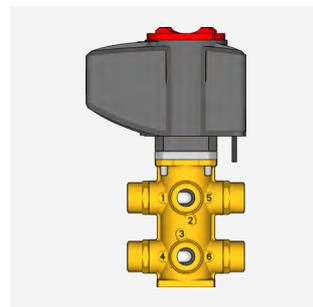


To install the K274Y072 actuator on the valve, position it on the flange of the valve and press downwards until a "click" is heard.

The actuator must be installed horizontally or vertically, with the cover facing upwards; in a dry, protected place that can easily be accessed for any necessary maintenance work. Leave a minimum distance of 120 mm between the top of the actuator and the ceiling.

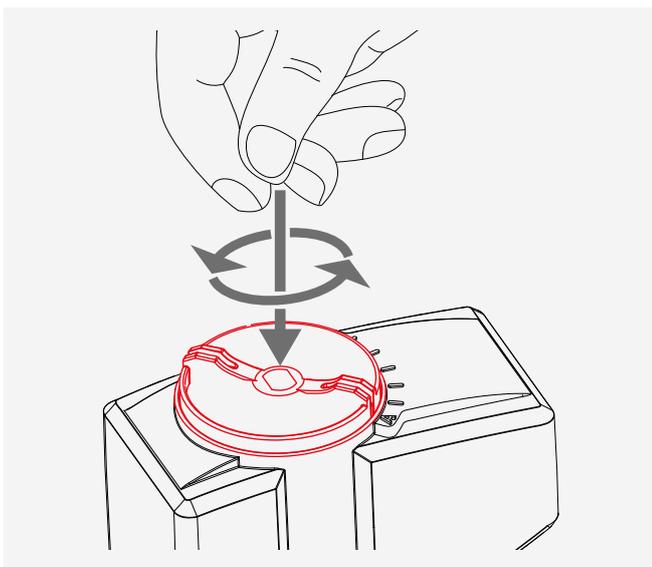
To remove the actuator from the valve, press upwards on the actuator pins, using a screwdriver, unlocking it from the valve flange.

**NOTE.** Check that the stem is correctly positioned before installing the actuator on the 6-way valve. Refer to the valve instructions.



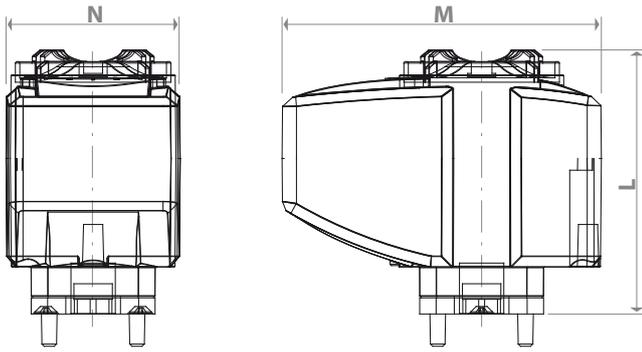
**WARNING.** The valve can be installed in any position but it is important that the actuator is not upside down or with the power supply cable coming in from above (to avoid possible problems due to possible condensation).

## Manual release



It is possible to move the actuator manually by pressing and turning the upper red knob.

## ➤ Dimensions



PRODUCT CODE	L [mm]	M [mm]	N [mm]
K274Y072	90	108	59

## ➤ Reference Standards

- CE and UKCA marks
- Directive EMC 2014/30/EU
- Low Voltage Directive LVD 2014/35/EU
- Directive ROHS 2011/65/EU

## ➤ Product specifications

### K274Y072

Rotary actuator to control the 6-way zone valves in heating and cooling systems, equipped with manual release. Power supply 24 Vac/dc  $\pm 10\%$ ; 50 Hz. Type of command: proportional, 2 $\pm 10$  V. Opening time: 60 s. Maximum torque: 10 Nm. Electricity absorption: 5 W. Insulation class: III. Protection degree: IP54. Operating room temperature range: 0 $\pm 50^\circ$  C. CE and UKCA Marks. Complying with Directive: EMC 2014/30/EU; LVD 2014/35/CE; ROHS 2011/65/EU.

**⚠ Safety Warning.** Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

**♻ Package Disposal.** Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

**ℹ Additional information.** For more information, go to [giacomini.com](http://giacomini.com) or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

**♻ Product Disposal.** Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.