

K275Y013 (K275-1)



Energy
Management

0÷10 V actuator for R296, R297 mixing valves, R274N, R274C 6-way zone valves and R586R distribution units

Datasheet
0871EN 04/2024



Actuator to control the R296, R297 mixing valves, R274, R274N zone valves or R586R distribution units in HVAC systems.

The actuator can be controlled with the KLIMAbus thermoregulation.

➤ Versions and product codes

PRODUCT CODE	POWER SUPPLY	USE
K275Y013	24 V - 50 Hz	R296, R297 mixing valves R274N, R274C 6-way zone valves R586R distribution units

NOTE. The following kits are also supplied with the actuator:

- P275Y003: kit for actuator installation on R296 mixing valves
- P275Y004: kit for actuator installation on R297 3/4", 1", 1-1/4" mixing valves

Accessories

- P275Y001: kit for installation of actuator on 1-1/2" and 2" mixing valves R297 and R297 flanged
- P275Y002: kit for installation of actuator on R274N, R274C 6-way zone valves
- P275Y005: kit for actuator installation on R586R DN32 distribution units

Spare parts

- P275Y003: kit for actuator installation on R296 mixing valves
- P275Y004: kit for actuator installation on R297 3/4", 1", 1-1/4" mixing valves

➤ Technical data

- Type of actuator: 0÷10 V proportional
- Supply voltage: 24 Vac, 50 Hz, +10/-15 %
- Command type: automatic or manual
- Torque: max 15 Nm
- Power: 6 VA
- Rotation time: 73 s
- Rotation angle: 90°
- Degree of protection: IP44
- Protection class: II
- Connection cable: 4 x 0,5 mm²; length 1 m
- Ambient temperature: 0÷55 °C
- Fluid temperature: according to valve's specifications
- Storage temperature: -20÷80 °C
- Weight: 480 g (without valve)
- Maintenance: maintenance free
- Control signal: voltage 0÷10 Vdc, 2÷10 Vdc, 0÷5 Vdc, 5÷10 Vdc; current 0÷20 mA, 4÷20 mA

➤ Operation

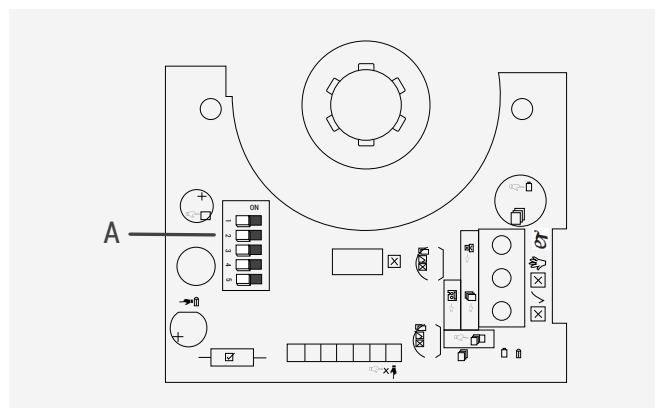
Front panel description



1	Reversible mechanical indication
2	Button for manual/auto control
3	Lever for manual control, also serves for the indication of the valve position
4	Screws for cover removing

DIP switches

DIP switches (ref. A) are located inside the actuator, under the cover.

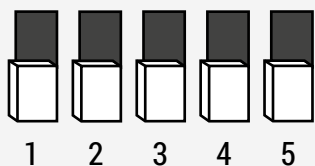


Factory settings

DIP1	OFF - counterclockwise opening
DIP2	OFF - direct control signal
DIP3 DIP4	OFF - 0÷10 V
DIP5	OFF - voltage control signal

Parameter Settings

With DIP switches inside the actuator is possible to set the following parameters:



1)

DIP	CCW ↺	CW ↻
1	OFF	ON

2)

DIP		
2	OFF	ON

3,4)

DIP	0-10V 0-20 mA	2-10V 4-20 mA	0-5 V	5-10 V
3	OFF	OFF	ON	ON
4	OFF	ON	OFF	ON

5)

DIP	U (V)	I (mA)
5	OFF	ON

DIP1 - SETTING THE OPENING DIRECTION OF THE VALVE

ON clockwise opening direction (CW)

OFF control signal (CCW)

DIP2 - CONTROL SIGNAL

ON inverse

OFF direct

DIP3, DIP4 - RANGE SETTING

See the table

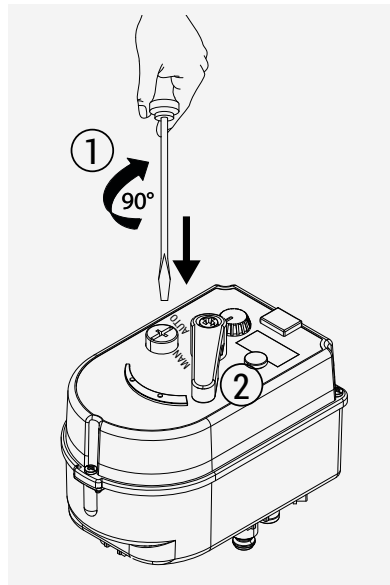
DIP5 - CONTROL SIGNAL

ON I (mA)

OFF U (V)

NOTE. During changing position of DIP1 is performed calibration proces. The actuator turns into left and right position. During proces leave the button for manual control in position AUTO.

Manual control



In the case of power failure or for service purposes, user can manually operate with the actuator:

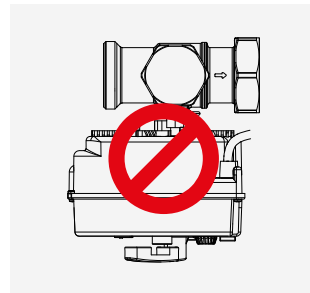
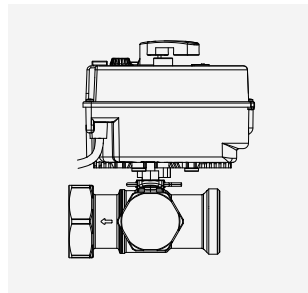
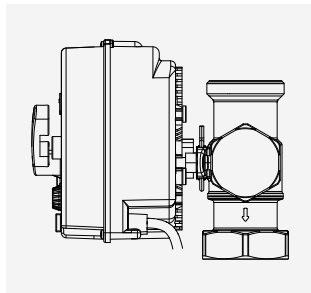
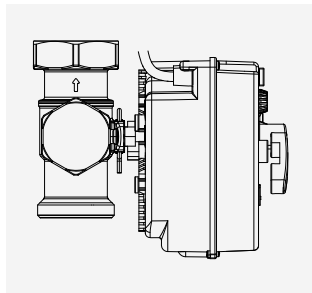
- with a screwdriver push and turn off the button to the MAN position.
- manually move the lever to desired position.

NOTE. When the button for manual operation is in MAN position, the actuator stays in temporary position regardless of control signal.

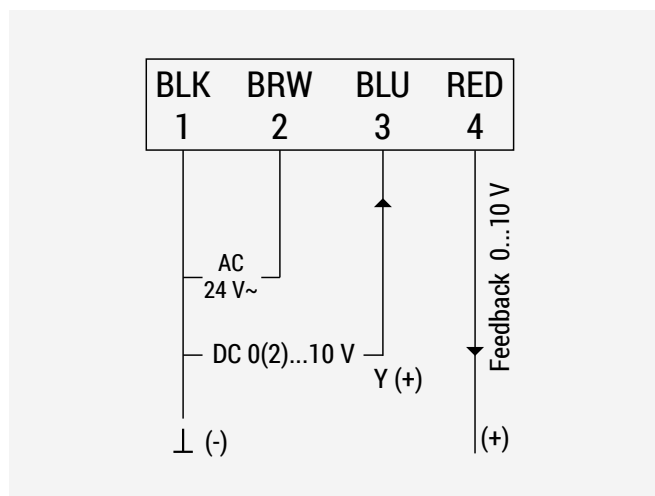
Installation

NOTE. To correctly install the K275Y013 actuator on Giacomini valves, refer to the instructions of the valves.

Allowed positions



Electrical connection



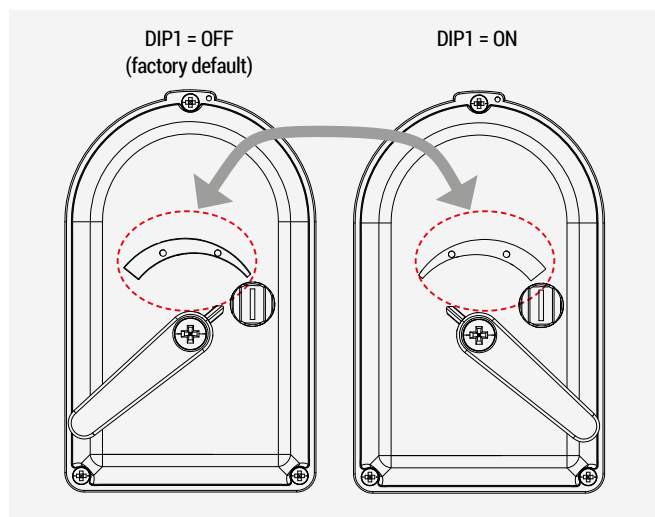
WARNING. Make sure the power supply voltage is disconnected while the connections are being carried out.

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.

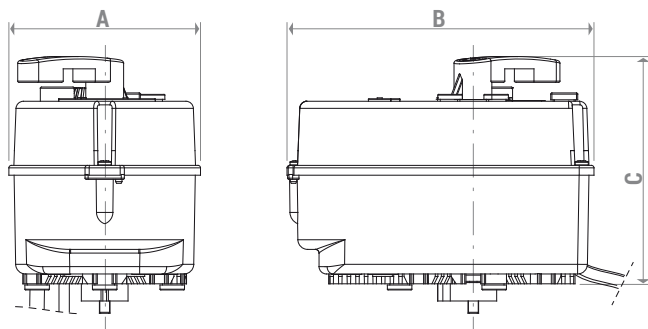
WIRE COLOR	FUNCTION
Nero - Black	Supply 24 Vac
Marrone - Brown	
Blu - Blue	Controll signal 0÷10 Vdc
Rosso - Red	Feedback signal 0÷10 Vdc

Indicator position

According to the position of DIP switches selection, set the indicator regarding to the application..



➤ Dimensions



PRODUCT CODE	A [mm]	B [mm]	C [mm]
K275Y013	78	125	93

➤ Reference standards

- EMC 2004/108/CE
- LV 2006/95/CE
- PAH 2005/69/CE

➤ Product specifications

K275Y013

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⚠ 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.

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♻ 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.