

ACTUATOR FOR MIXING VALVES

0871EN October 2020

0 ÷ 10 V PROPORTIONAL ACTUATOR FOR R296 AND R297 MIXING VALVES OR R274, R274N ZONE VALVES K275-1 SERIES



GIACOMINI
WATER E-MOTION



K275Y013

Description

The **K275Y013** actuator is used to control the R296 and R297 mixing valves or R274, R274N zone valves in heating and cooling systems.

The actuator can be controlled from the KLIMAbus KPM30 or KPM31 control unit.

Versions and product codes

Product code	Power supply	Use with mixing valves	Use with zone valves
K275Y013	24 V - 50 Hz	R296, R297	R274, R274N

Spare parts

Mixing valve	Spare kit for installation on the valve
R296	P275Y003
R297 3/4", 1", 1-1/4"	P275Y004
R297 1-1/2", 2"	P275Y001
R297 Flanged	P275Y001

Accessories

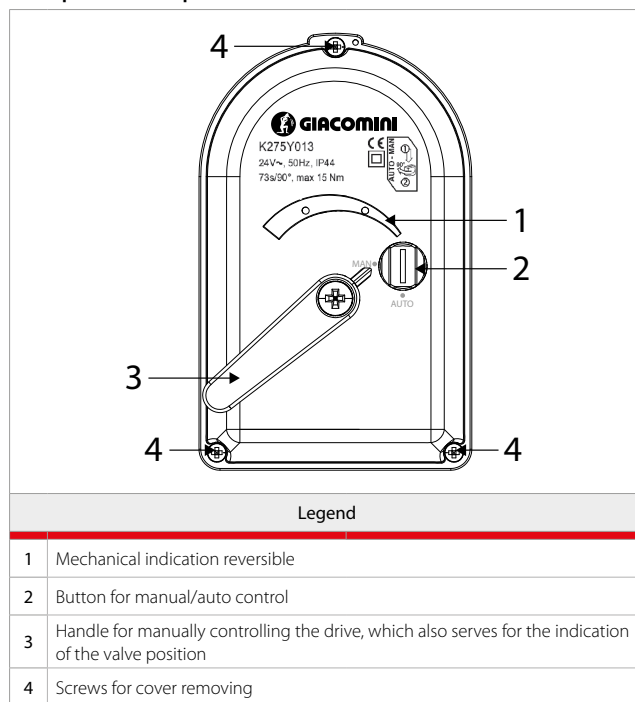
Zone valve	Kit to be ordered separately for installation on the valve
R274, R274N	P275Y002

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 consumption: 6 VA
- Rotation time: 73 s / 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

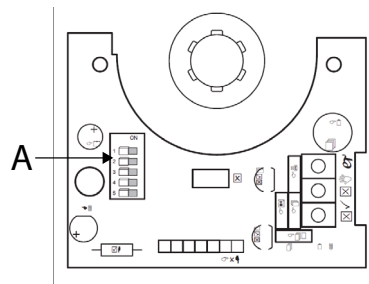
Front panel description



Legend

1	Mechanical indication reversible
2	Button for manual/auto control
3	Handle for manually controlling the drive, which also serves for the indication of the valve position
4	Screws for cover removing

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



Factory settings

1	CCW ↺	DIP1: OFF - opening counterclockwise
2	↙	DIP2: OFF - direct control signal
3,4	Y= 0-10V	DIP3, 4: OFF - 0÷10 V
5	U (V)	DIP5: OFF - voltage control signal



DIP switches settings

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

	1	2	3	4	5
1)	DIP	CCW ↺	CW ↻		
	1	OFF	ON		
2)	DIP	↗	↘		
	2	OFF	ON		
3, 4)	DIP	0-10 V 0-20 mA	2-10 V 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: counterclockwise opening direction (CCW)

• DIP2 - Control signal:

- ON: inverse
- OFF: direct

• DIP3, 4 - Range setting:

See the table

• DIP5 - Control signal:

- ON: I (mA)
- OFF: U (V)



Note.

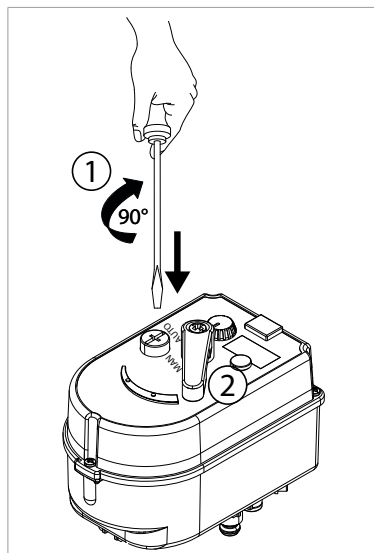
During changing position of DIP1 is performed calibration proces. The actuator turns into left and right position. During proces leave the button for manual control in position AUTO.

• Operation to set the DIP switches

- 1) Remove the cover by unscrewing the 4 screws
- 2) With a small screwdriver move the DIP switches to the desired position
- 3) Put the protection cap back in its original position

Manual control

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



- 1) With a screwdriver push and turn off the button to the MAN position.
- 2) Manually move the handle 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

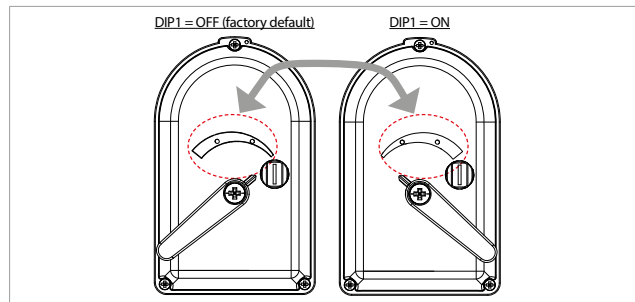


Note: installation on the valves

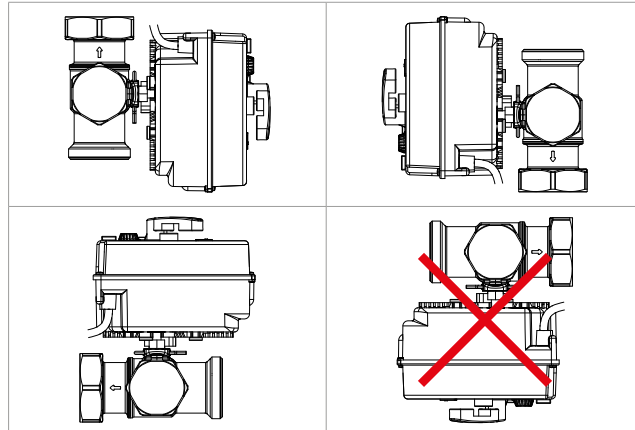
To correctly install the K275Y013 actuator on Giacomini valves, refer to the instructions of the valves.

Indicator position

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



Recommended mounting position



Electrical connection



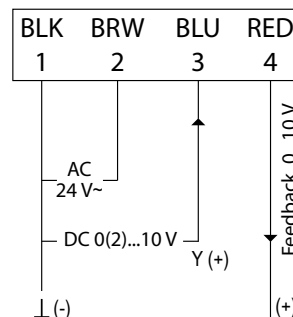
Warning.

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
(BLK) Black	Supply 24 Vac
(BRW) Brown	
(BLU) Blue	Controll signal 0÷10 Vdc
(RED) Red	Feedback signal 0÷10 Vdc



Dimensions

Product code	A [mm]	B [mm]	C [mm]
K275Y013	78	125	93

Normative references

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

Product specifications

K275-1

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Additional information

For more information, go to www.giacomini.com or contact our technical assistance service: ☎ +39 0322 923372 📠 +39 0322 923255 ✉ consulenza.prodotto@giacomini.com
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