

# INSTALLATION INSTRUCTION, ELETRIC ACTUATOR

## USE

The main use of the electric motor is the automation of rotary valves, ball valves for gas and fluids. The electric actuators are used in large heating / cooling systems of automation systems utilizing alternative energy systems automation in general.

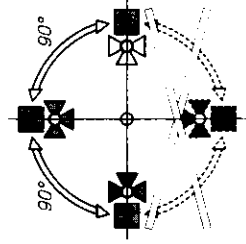
## WARNINGS AND SAFETY NOTES

Temperature range of  $-10^{\circ}\text{C} / +70^{\circ}\text{C}$  for actuators QM, the other  $-20^{\circ}\text{C} / +70^{\circ}\text{C}$ . Do not use actuators with parameters of temperature, supply voltage different from the values consentiti. Leggere carefully before making any intervention on the actuator, the damages caused by these instructions are not covered by the warranty and installation and maintenance of the electric work must be solely and exclusively qualified person. Before performing any maintenance of the actuator, make sure you have interrupted the power supply;

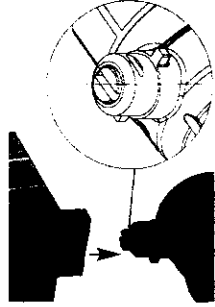
- Always check the torque of the actuator is oversized by at least 25% of the maximum torque required by the valve in operating position;
  - Do not alter in any way the internal parts of the product and do not change the electrical connections;
  - Do not overload the actuator with external loads. Where an electrical connection is necessary to remove the actuator cover, tighten and tighten screws and press to get cable and do not compromise the protection of the actuator (eg IP65);
  - If the actuator is assembled with valves are not used for some time, before you install and operate the actuator make sure that the valve turns freely and at least one cycle (open - closed) ( $90^{\circ}$  or  $180^{\circ}$ ) before installation;
  - Use caution when handling or carrying the actuator, to avoid any damage to it;
  - Keep away from heat, humidity, condensation, rain and water;
  - Where attutore is used at low temperatures ( $0^{\circ}\text{C}$ ), we recommend the use of heaters to avoid condensation problems;
  - The circuits connected to the equipment have to be protected both against overload and electrical shortage; Whenever mentioned on the label, the wire indicating open valve must be insulated, in case it is not in use.
- Enolgas Bonomi S.p.A. reserves the right to modify data and features contained in this document without prior notice as part of a constantly updating and improving technology. Enolgas Bonomi S.p.A. also not responsible for damages to persons, property or third parties caused by inappropriate use of the product.

## INSTALLATION INSTRUCTION

- Wiring must be performed in the absence of electrical voltage by properly qualified personnel following the scheme described on the label or accompanying documentation on the implementation;
- The wiring diagrams are outside or inside the case, or the accompanying documentation, links do not correspond to requirements may seriously damage the actuator;
- Make sure the valve turns freely, properly. Pay attention to the arrow on the valve body to the direction of flow when the valve was characterized by controlling the flow;
- Remove any kind of lever mechanism manually or letting the pin valve and flange. Make sure that there are no obstructions or by whom they are still maneuvering the valve and actuator;
- Make sure the shape of the pin coincide with the release of the actuator;
- Verify that the direction of rotation of the actuator is correct (see diagram of rotation) and do not put your hands in any case within the valve;
- The installation position of the valve must be appropriate as the following figure, and also to avoid wetting the motor in case of leakage or splashing water;



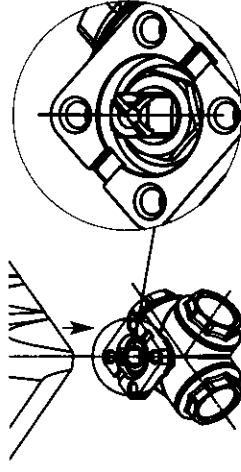
- When the valve has to work with flows at low temperature, with the possibility of ice formation on the outside, or high temperature danger overheating of the actuator must be installed between valve and a spacer kit that will avoid the following anomaly;
- Assemble the electric actuator on the valve in the two figures described below:  
Figure QM



## QM comments:

The valves are supplied in the closed position and the actuators in the open position. This ensures that an operation takes place before the installation and use of the product and ensure a long life. Tighten the actuator with the appropriate QM spring so as to prevent accidental removal of the actuator.

Figure ISO



## ISO comments:

Make sure the valve is operated with the actuator before installation. This ensures that an operation takes place before the installation and use of the product and ensure a long life. Close and bleed well all 4 bolts and nuts with spacers to prevent accidental removal of the actuator;

- When the installation is necessary to verify the proper function of the actuator and valve;
- Avoid any tampering of the actuators with particular reference to the organs of action, in particular the connection valve-actuator and the electrical system;
- The system shall be designed and constructed so as to avoid any stress on the actuator power that can prevent proper operation.

For further information please consult your local dealer or directly to Enolgas Bonomi SpA or visit [www.Enolgas.it](http://www.Enolgas.it).

## OPERATION ISSUE

In case of failure or malfunction of the actuator to perform the following tests:

- Check for power line.
  - Check that the wiring complies with the actuator wiring diagram.
  - Check the torque of the valve (must comply with the directions of the point a)
  - Check that the manual release knob is turned to automatic (for actuators provided the following device);
  - Verify that the position signal is free to rotate properly.
- If you have to submit further issues of operation, contact your authorized dealer or directly to the customer service Enolgas Bonomi SpA

## MAINTENANCE

The electric actuator needs no maintenance, the internal lubrication of the gearbox offers the very life of the actuator. To clean the cleaners to moderate degree of aggressiveness and chemical non-flammable, avoid spraying water or other liquid under pressure. In the event of damage or malfunctions, it is recommended to postpone the actuator to the manufacturer so that our technical staff can carry out the necessary checks.

The Enolgas Bonomi S.p.A. assumes no liability or guarantee actuators repaired by third parties.

## DISMISS

The following actuators comply with the RoHS and REACH. The electric actuator before being abandoned must be removed from the plant according to the following instructions:

- Perform same operation by a qualified operator;
  - Perform disassembly only after making sure that there is no tension in the system;
  - Take all the precautions taken to prevent or cause accidents before removing the actuator (gloves, glasses, shoes, etc ...);
  - Proceed to the separation of recyclable materials (metal parts such as gear, screws, gaskets), plastic parts (such as box housing), electrical parts (such as circuit board, wiring, motor).
- The company Enolgas Bonomi SpA disclaims any liability as a result of disposal is not undertaken in accordance with regulations.

## Manufacturer's Declaration Directive 2006/42/EC (Directive on the machines)

In accordance with EC Machine Directive 2006/42/EC, annex II. In accordance with the Machinery Directive 2006/42/EC devices that we supply are not considered as machines, but they can be inserted into a machine. In this case you must observe the following notes:

This is to confirm that the devices that we provide can be used in an installation in a machine / application whose operation is prohibited until evidence is provided that the machine / application in question complies with EC directive 2006 / 42/EC.

For other devices subject to applicable EC directive, such as the Low Voltage Directive and CE EMC EC declaration request to the company Enolgas Bonomi SpA

## DECLARATION OF CONFORMITY CE

The undersigned Enolgas Bonomi S.p.A. located in Via Europa, 227 Concesio BS 25062 ITALY declares that the electrical actuators are in accordance with provisions of the directives:

### IEC 60730-2-14

The product is then described with the essential requirements of the Directives:

### CE MACHINERY DIRECTIVE

89/336/EEC: 1998

### CE LOW VOLTAGE DIRECTIVE

2006/95/EC of 12 December 2006

### CE DIRECTIVE ON ELECTROMAGNETIC

### COMPATIBILITY

04/108CEE: 2004, 92/31/EEC: 1992, 93/68: 1993, 93/97/EEC: 1993.