ELECTRIC ACTUATORS SERIES 85 (VB030 - VB350) WITH POSITIONER INSTALLATION AND MAINTENANCE INSTRUCTIONS MANUAL

1.0 WARNING
- Please read the following instructions before taking any action on the actuator. The damage caused from the non-compliance of these instructions may cause serious damages to the actuator and the connected devices.
- The actuator is an electronic device and does not require ongoing maintenance except for the connection to the power supply and the closing of auxiliary limit switches. In case of damage, contact the nearest Valbia service center or a qualified technician.

2.0 SPECIFICATIONS AND STORAGES
- Execution of the test: EN50037, EN60204-1, EN60715, EN61010, EN61800-4-1
- Protection class against electric shock: IP53
- Overvoltage category: II
- Protection category: II
- Maximum temperature: +50 °C
- Minimum temperature: -25 °C
- Maximum operating temperature: 40 °C
- Operating temperature range: -4 °F ÷ +131 °F
- Maximum operating altitude: 2000 meters
- Acceleration: 10 g
- From 3.000 m above sea level, a 5% reduction in torque and power will be noticed.
- Warranty: 24 months
- Self-extinguish technopolymer (V0)
- Maximum continuous current: 12Vac/dc 4.50 Lb.In
- Maximum continuous current: 24Vac/dc 2.5 Nm
- Maximum continuous current: 12Vac/dc 24Vac/dc

3.0 APPLICATIONS
VALBIA electric actuators have been designed and tested to ball and butterfly valves and dampers for the industrial sector. Actuators are available in standard versions with rotation 0°-90°. On request we can supply actuators with rotation 0°-180° or 0°-270°. For applications other than those above are needed please contact Valbia S.r.l.

4.0 INSTALLATION INSTRUCTIONS
4.1 General installation instructions
- Valbia S.r.l. reserves the right to change the data and the characteristics of this manual at any time and without notice in the scope of a constant updating of the product. Please read the following instructions before making any installation of the actuator. The damages caused from the non-compliance of these instructions may cause serious damages to the actuator and the connected devices.
- WARNING: before opening the upper cover shut down the power supply voltage. The LED signal is reliable if the battery back-up has not been damaged.
- WARNING: after engaging the manual operation you can make desired the position you wish by keeping pressure on, and turning the handwheel.
- WARNING: if the closing position is too close to the new opening position not respecting the minimum stroke of 45°, the new opening position is not stored.
- WARNING: the handwheel for the manual override can be used with actuator NOT power supplied.
- WARNING: the "positive power" signal cable (+12Vdc/+24Vdc) or "Phase" (12Vac/24Vac) can be indifferently connected to pin "1" or pin "3" on terminal block "F".

5.0 Specifications and technical information

5.1 Actuator values adjustment (Fig.7 and Fig.8)
- The control board has two separate analog inputs for positioning the valve: 12Vdc internal, black "F", and 24Vac external, brown "F". The actuator can be driven by a signal from the control board by providing a signal of 0 to 5 V. The actuator remembers the last position before power failure. When the actuator is on, it checks the connection of the terminal blocks "CMD IN" for the command signal and "CMD OUT" for the signal output are shown in Tab.4.
- The control board has 2 Analog inputs: "F1" and "F2". The analog inputs F1 and F2 are connected to the "CMD IN" signal and "CMD OUT" signal which are used for the control of the position of the valve.
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6.0 Wiring instructions
- The wiring connections for the listed actuators are shown in Fig.7 and also in Fig.8, as leg, inside the cover.

7.0 Emergency operations
- The "positive power" signal cable (+12Vdc/+24Vdc) or "Phase" (12Vac/24Vac) can be indifferently connected to pin "1" or pin "3" on terminal block "F".
- The actuator is equipped with an emergency stop button (ESB) which can be used for clearing the panel, to stop the actuator, to close the valve or to open the valve.
- The emergency stop button (ESB) is used to stop the actuator in case of emergency. The actuator can be restarted by pressing the emergency stop button (ESB) and then pressing the start button. The emergency stop button (ESB) is used to stop the actuator in case of emergency.

8.0 MAINTENANCE INSTRUCTIONS
- The maintenance consists of the visual control of the internal electric parts. The maintenance is not necessary to be made by qualified personnel who have the necessary technical knowledge.
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