**Standard** mode: 4 mA (closed) ÷ 20 mA (open) or 0V (closed) ÷ 10V (open); the electric actuator with positioner can work in two operating modes:

1. **Switching**: turning off work
2. **Stand-by**

### 5.1 FEATURES

- **Resistor “RIS”**: All the actuators are equipped with “RIS” heating resistor which works only if the actuator is connected to the power supply, when the motor is not rotating and the “RIS” resistor is not higher than 500 Ω. To guarantee the normal operation of the resistor, it is necessary to keep the actuator connected to the power supply even in the open/close positions.
- **Auxiliary switches wiring**: The “CMD IN” terminal for analog input and the “CMD OUT” terminal for analog feedback are described in Tab. 4.
- **Input voltage**: The input in voltage should not be loaded with a resistance lower than 1 kΩ and, for proper current output, make sure the resistance can be used simultaneously. The input in voltage should not be loaded with a resistance lower than 1 kΩ.
- **Output voltage**: The battery is a component that guarantees a limited number of charge/discharge cycles (over 500), therefore its life is inversely proportional to the number of charge/discharge cycles. A yellow light (LED) mounted on the power supply board indicates that the board is charging the battery in TRICKLE mode.
- **Absorbed current**: The “E” and “H” for opening. The “B” and “C” for closing. The “G” terminal block is connected to two auxiliary limit switches (SPDT free contacts), which indicate the position of the actuator. The terminal block “G” is removable in the versions with a run longer than 90° (0°-120°, 0°-180°, 0°-270° etc) the cam for the mechanical stops is not present (they do not need any type of mechanical stops).
- **Regime**: the usage of manual override can damage the device, when the actuator is powered.
- **OR**
- **Protection**: during the installation it is recommended to verify the alignment of the auxiliary limit switches by using a multimeter/tester.
- **Absorbed power**: during the installation it is recommended to verify the alignment of the auxiliary limit switches by using a multimeter/tester.
- **Nominal voltage**: The collection system of the equipment at the end of its life is guaranteed on the national territory through the national consortia for the eco-sustainable recycling of electrical and electronic devices.

### 5.2 Power requirements and current draw information (Tab. 3)

<table>
<thead>
<tr>
<th>Product</th>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
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</tr>
<tr>
<td>Model 2</td>
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<td>Nominal voltage</td>
</tr>
<tr>
<td>Model 3</td>
<td>1</td>
<td>Nominal voltage</td>
</tr>
</tbody>
</table>

### 5.3 Signal voltage and analog input

- **Signal voltage**: The electric actuator can accept a signal between 0 V and 10 V, in analog input. The voltage is converted to a 4 mA – 20 mA current output, which is connected to an auxiliary limit switch. The actuator can be connected to a control panel, a control system, or a computer, to receive and interpret the input signal.
- **Analog input**: The terminal block “V” is connected to the analog input, which is used to control the actuator. The input signal can be used to control the position of the actuator, to control the opening/closing of a valve, or to control the speed of a motor.

### 5.4 Domains of electrical actuator

- **Electric actuator**: The actuator is mounted in the actuator with positioner. The actuator is a component that guarantees a limited number of charge/discharge cycles (over 500), therefore its life is inversely proportional to the number of charge/discharge cycles. A yellow light (LED) mounted on the power supply board indicates that the board is charging the battery in TRICKLE mode.
- **Power supply**: The power supply is used to power the electric actuator. The power supply is connected to the power source, which is usually a wall outlet or a battery. The power supply converts the AC voltage to DC voltage, which is used to power the electric actuator.
- **Limit switches**: The limit switches are used to detect the end of the travel of the actuator. The limit switches are used to stop the actuator at a specific position, which is determined by the application.

### 5.5 Switching modes

- **Switching modes**:
  1. **Stand-by**: the usage of manual override can damage the device, when the actuator is powered.
  2. **Absorbed power**: during the installation it is recommended to verify the alignment of the auxiliary limit switches by using a multimeter/tester.
  3. **Absorbed current**: the usage of manual override can damage the device, when the actuator is powered.
  4. **Input voltage**: the usage of manual override can damage the device, when the actuator is powered.
  5. **Output voltage**: the usage of manual override can damage the device, when the actuator is powered.
  6. **Regime**: the usage of manual override can damage the device, when the actuator is powered.

### 5.6 Protection

- **Protection**: during the installation it is recommended to verify the alignment of the auxiliary limit switches by using a multimeter/tester.

### 5.7 Domains of electrical actuator at the end of their life cycle

- **Disposal of electrical equipment**: the usage of manual override can damage the device, when the actuator is powered.

### 6.0 Specifications and technical information (Tab. 1-2)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>Nominal current</td>
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<td>Nominal current</td>
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<tr>
<td>Nominal voltage</td>
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<td>Nominal voltage</td>
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<tr>
<td>Nominal power</td>
<td>1</td>
<td>Nominal power</td>
</tr>
<tr>
<td>Nominal torque</td>
<td>1</td>
<td>Nominal torque</td>
</tr>
<tr>
<td>Nominal speed</td>
<td>1</td>
<td>Nominal speed</td>
</tr>
</tbody>
</table>

### 7.0 Manual override

- **Override**: turning off work
- **Stand-by**

### 8.0 Mechanical stops

- **Mechanical stops**: the usage of manual override can damage the device, when the actuator is powered.
- **Absorbed power**: during the installation it is recommended to verify the alignment of the auxiliary limit switches by using a multimeter/tester.
- **Absorbed current**: the usage of manual override can damage the device, when the actuator is powered.

### 9.0 Manual override

- **Override**: turning off work
- **Stand-by**

### 10.0 Protection

- **Protection**: during the installation it is recommended to verify the alignment of the auxiliary limit switches by using a multimeter/tester.

### 11.0 Disposal of electrical equipment

- **Disposal of electrical equipment**: the usage of manual override can damage the device, when the actuator is powered.

### Appendix A: Electrical actuator with positioner

- **Appendix A**: the usage of manual override can damage the device, when the actuator is powered.