



**AT 50**

**Electric Actuator**



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## AT50 Electric Actuator

### Overview

AT50 electric actuator has more torque and function than AT31. It is used to drive 0-90 °rotation in all situations, such as driving butterfly valves, linear valves and other valves, to automatically regulate gas or air flow. Two of the cam (N1 and N2) of the actuator are used to adjust the opening, N1 adjusts the minimum angle and N2 adjusts the maximum angle. There are three control modes: three-point control, analog control and two-point control. Three-point control and analog control are suitable for continuous control applications, while two-point control is suitable for on / off or large / small fire pulse control.

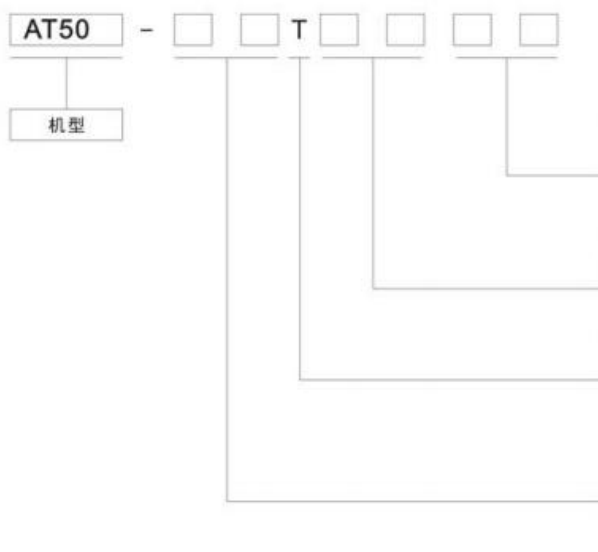
- Valve position indicator can display valve position on the outside of valve body.
- The standard adjustable cam can accurately adjust the valve position.
- Biaxial output.
- Manual / automatic switching switch.
- Valve rotation angle display.
- AT50 actuators are available in primary and black colors.



### Technical Parameters

- Supply voltage: 220~ 240VAC 50Hz
- Maximum torque: 20Nm
- Power: 11VA
- Auxiliary switching load: 2A @ 250VAC
- Rotation angle: adjustable, factory default 0-90°
- Degree of protection: IP54
- 0-90° travel time: 5S, 15S, 30S, 60S optional
- Operating temperature: -20°C~ +60°C
- Feedback resistance: 1KΩ

### Type selection table



#### Control Mode

E: Continuous signal control

RR: Two-point control

R: 3-point control (with 1KΩ feedback potentiometer)

Default: 3-point control (without 1KΩ feedback potentiometer)

#### Torque

4: 3. 7Nm 15: 15Nm 20: 20Nm

#### Supply voltage

T: 220VAC

M: 110VAC

H: 24VAC

#### travel time is (0-90)

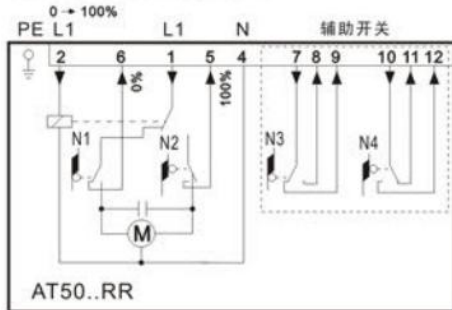
03: 3. 7S

30: 30S

60: 60S

## Wiring

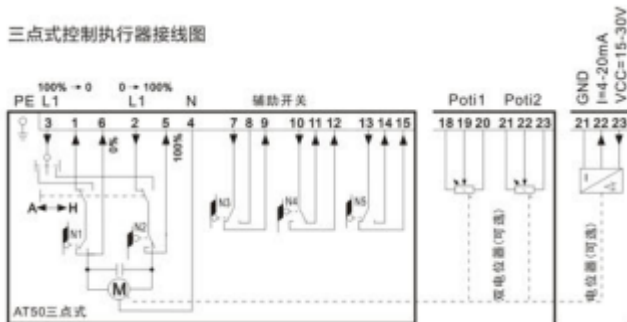
Wiring diagram of two-point control actuator



Terminal block definition:

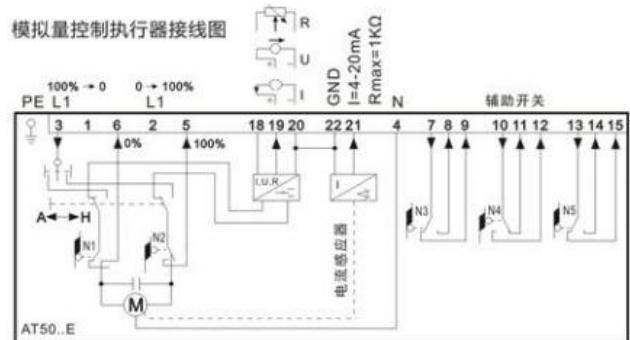
1. FireWire (L); 2. Control line (L); 4. Neutral line (N); 7, 8, 9: auxiliary switch N3 output; 10, 11, 12: Auxiliary switch N4 output

Wiring diagram of three-point control actuator



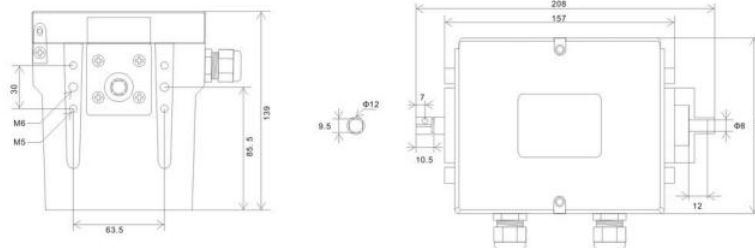
Terminal block definition: 1. Off control line (L); 2. Turn on the control line of fire (L); 3. Power supply (L); 4. Power supply (N); 7, 8, 9; auxiliary switch N3 output; 10, 11, 12: auxiliary switch N4 output; 13, 14, 15: Auxiliary switch N5 output

Analog control actuator wiring diagram



Terminal block definition: 3. Power supply (L); 4. Power supply (N); 7, 8, 9: auxiliary switch N3 output; 10, 11, 12: auxiliary switch N4 output; 13, 14, 15: auxiliary switch N5 output; 19, 20: analog input; 19 is positive; 20 is negative; 21, 22: analog feedback output; 21 is positive; 22 is negative..

## Specifications Dimension diagram



## Precautions for Installation

- AT3 1 actuators cannot be installed in the following environments.
  - a. Where there are special chemicals and corrosive gases (ammonia, sulfur, chlorine, ethylene, acid gas, etc.).
  - b. In water, in humid (humidity not exceeding 90%) or in dewy environment.
  - c. Where the temperature is too high (more than 60 degrees) and vibrates frequently.
- The voltage of the power supply must not exceed the rated voltage, otherwise the motor will be burned out.
- In the selection, attention should be paid to the matching of torque and load, so as not to affect the service life of the actuator.
- The control signal line should be isolated from other strong interference wires (especially the ignition high voltage wire). The wire should be shielded and the shielding layer should be well grounded.
- Be sure to check whether the wiring is correct before powering on, so as to avoid damaging the actuator due to wiring errors.



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## AT50 Electric Actuator

### Product Code

No.	Product Code	Product Model	Color	Description
1	112020500001	AT50-60T20	Primary color	Switch control, travel time is 60 seconds, torque is 20 Nm, five cam.
2	112020500002		Black	Switch quantity control, travel time is 60 seconds, torque is 20 Nm, five cam.
3	112020500003	AF50-30T20	Primary color	Switch quantity control, travel time is 30 seconds, torque is 20 Nm, five cam.
4	112020500004		Black	Switch quantity control, travel time is 30 seconds, torque is 20 Nm, five cam.
5	112020500005	AT50-03T4	Primary color	Switch quantity control, travel time is 5 seconds, torque is 3.7 Nm, five cam.
6	112020500006		Black	Switch quantity control, travel time is 5 seconds, torque is 3.7 Nm, five cam.
7	112020500007	AF50-60T20R	Primary color	Switch quantity control, with feedback potentiometer , travel time is 60 seconds, torque is 20 Nm, five cam.
8	112020500008		Black	Switch quantity control, with feedback potentiometer , travel time is 60 seconds, torque is 20 Nm, five cam.
9	112020500009	AT50-30T20R	Primary color	Switch quantity control, with feedback potentiometer , travel time is 30 seconds, torque is 20 Nm, five cam.
10	112020500010		Black	Switch quantity control, with feedback potentiometer , travel time is 30 seconds, torque is 20 Nm, five cam.
11	112020500011	AT50-03T4R	Primary color	Switch quantity control, with feedback potentiometer , travel time is 3.7 seconds, torque is 3.7 Nm, five cam.
12	112020500012		Black	Switch quantity control, with feedback potentiometer , travel time is 3.7 seconds, torque is 3.7 Nm, five cam.
13	112020500013	AT50-60T20E	Primary color	Analog quantity (4-20mA) control, travel time is 60 seconds, torque is 20 Nm, five cam.
14	112020500014		Black	Analog quantity (4-20mA) control, travel time is 60 seconds, torque is 20 Nm, five cam.
15	112020500015	AT50-30T20E	Primary color	Analog quantity (4-20mA) control, travel time is 30 seconds, torque is 20 Nm, five cam.
16	112020500016		Black	Analog quantity (4-20mA) control, travel time is 30 seconds, torque is 20 Nm, five cam.
17	112020500017	AF50-03T4E	Primary color	Analog quantity (4-20mA) control, travel time is 60 seconds, torque is 20 Nm, five cam.
18	112020500018		Black	Analog quantity (4-20mA) control, travel time is 60 seconds, torque is 20 Nm, five cam.
19	112020500019	AT50-03T4RR	Primary color	Two-point control, travel time is 5 seconds, torque is 3.7 Nm, five cam.
20	112020500020		Black	Two-point control, travel time is 5 seconds, torque is 3.7 Nm, five cam.