

## AEX type Electric Actuator Specifications

### FEATURE

The powerful and compact electric actuator built in high reliability and proportional motor.  
It corresponds to various control input signals.

### SPECIFICATION

Actuator type (□:Voltage code)	AEX-120-□	AEX-360-□	AEX-700-□	AEX-02K-□	AEX-06K-□
Voltage	100 / 110 V AC ±10 % 50/60 Hz (Code: 1) 200 / 220 V AC ±10 % 50/60 Hz (Code: 2)				
Rated torque [N·m]	12	36	70	200	600
Operation time [s]	30 / 25 (50/60 Hz)	36 / 30 (50/60 Hz)	72 / 60 (50/60 Hz)	77 / 64 (50/60 Hz)	77 / 64 (50/60 Hz)
Power consumption [VA]	9.5	13		45	220
Motor	Synchronous motor (Triac control)			Reversible motor (Triac control)	
Overload protection	Timer				
Method of operation	Proportional control				
Input signal	4 to 20 mA 1 to 5 V (Input resistance: 250 Ω) (Standard) 0 to 5 V 0 to 10 V 2 to 10 V (Input resistance: more than 1 M Ω) 0-135 Ω to 0-1 kΩ Potentiometer input (Applied voltage: 5 V DC)				
Operation *1	[Mode A] SHUT by decreased signal ↔ OPEN by increased signal [Mode B] SHUT by increased signal ↔ OPEN by decreased signal [Forced open / shut] It takes priority over the input signal. C-S is ON → SHUT C-O is ON → OPEN Common in mode A / B				
Indication signal	0 mA : SHUT ↔ 1 mA : OPEN (External load resistance: less than 3 kΩ) Common in mode A / B				
Override switch	It takes priority over the input signal. Common in mode A / B Dry contact / Transistor, Open collector. (Input signal current: 6 mA 15V DC)				
Operating range	SHUT: 0 to 40 % OPEN: 50 to 100 %				
Resolution	Less than 0.2 %				
Duty cycle	100 %				
Ambient temperature	-20 to 55 °C				
Space heater	2 W				
Manual operation	Manual shaft				
Enclosure	Equivalent to IP65 (IEC 60529)				
Housing material	Aluminum alloy die cast (acrylic resin baking finish)				
Wire connection	Terminal Block: M3, Ground terminal: M3				
Conduct port	2-G1/2 Attachments: Cable gland (for Φ6 to 12 mm cable), plug.				

3 way valve: SHUT / Position①, OPEN / Position②

\*1 Change by DIP switch. (Standard → Potentiometer input or 0 to 5 V 0 to 10 V 2 to 10 V)

\*2 Change by DIP switch. (Standard → Mode B)

INPUT SIGNAL AND OPERATION

		Option code
4 to 20 mA / 1 to 5 V	Mode A	Standard (Nil)
	Mode B	Option: J
0-135 Ω to 0-1 kΩ Potentiometer input / 0 to 5 V	Mode A	Option: F
	Mode B	Option: K
0 to 10 V	Mode A	Option: G
	Mode B	Option: N
2 to 10 V	Mode A	Option: H
	Mode B	Option: M

WIRING

**Setting with DIP SW**

- Operation
 

Mode A	ON OFF	Mode B	ON OFF
	<input type="checkbox"/> 4		<input type="checkbox"/> 4
	<input type="checkbox"/> 3		<input type="checkbox"/> 3
	<input type="checkbox"/> 2		<input type="checkbox"/> 2
	<input type="checkbox"/> 1		<input type="checkbox"/> 1
- Input signal
 

4 to 20 mA / 1 to 5 V	ON OFF
	<input type="checkbox"/> 4
	<input type="checkbox"/> 3
	<input type="checkbox"/> 2
	<input type="checkbox"/> 1
- 0-135 Ω to 0-1 kΩ Potentiometer input / 0 to 5 V
 

ON OFF
<input type="checkbox"/> 4
<input type="checkbox"/> 3
<input type="checkbox"/> 2
<input type="checkbox"/> 1
- 0 to 10 V
 

ON OFF
<input type="checkbox"/> 4
<input type="checkbox"/> 3
<input type="checkbox"/> 2
<input type="checkbox"/> 1
- 2 to 10 V
 

ON OFF
<input type="checkbox"/> 4
<input type="checkbox"/> 3
<input type="checkbox"/> 2
<input type="checkbox"/> 1

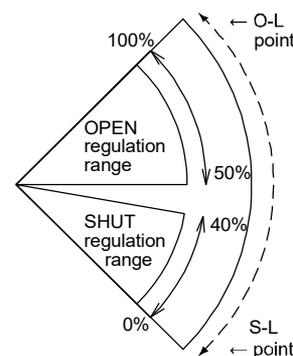
**Note**

- Input signal circuit is non-isolated. Do not connect DC (minus) wire to other DC (minus) common.
- Do not adjust the "O-L" and "S-L" trimmer. It is adjusted at the factory.

Adjustment of the control range

- For better control, it is necessary to select the valve size and adjust the control range of the valve for the input signal.
- When setting the maximum flow rate, open side opening can be adjusted with OPEN trimmer.
- When setting the minimum flow rate, the opening degree of the closing side can be adjusted with the SHUT trimmer.

Valve control adjustment range



Operate of the Forced SHUT / OPEN SW

- If forced open point and a close point of contact are turned on, priority will be given over an input signal and a valve is going to be carried out full open and close.
- When the override OPEN/SHUT switch is ON at the same time, the valve holds the current opening.