

EFV Electric Flow Control Valve  
(BERNARD electric actuators)

# **Operation    Manual**

Hangzhou Fuyang HENT  
Electromechanical Engineering Co.,Ltd

## **Application:**

EFV series electric flow control valve is the expertise discharging equipment which avails of the most advanced overseas technology for both raw materials homogenizing silo, cement depot; particularly is the best replacement of similar import equipment in sealing and discharge linear. It has a good efficiency contrast to similar imported products in the 1000t/d, 2500 t/d and 5000 t/d cement production line. The mechanical device of electric flow control valve is adjustable electric actuators, which is the only difference from switch valve. Electric flow control valve can adjust the open size automatically by inputting from 4 to 20 mA control signals to achieve regulatory function. Mainly play a role of flow adjustment in the transmission control system for powder, grain materials and small particles; usually it used together with switch valves.

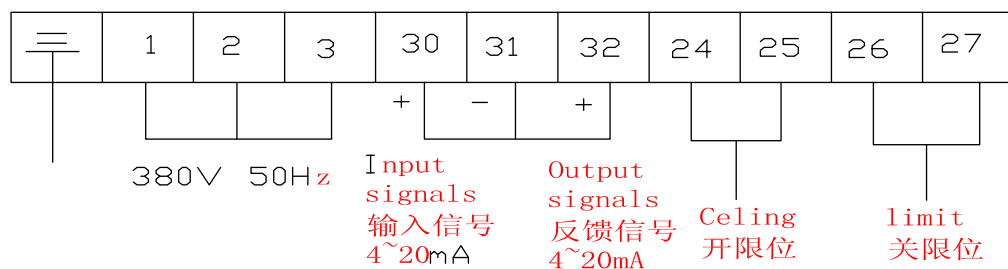
## **Product features:**

- 1). This product has the features as following: pleasure appearance, open and close flexibly, seal tightly without leakage, the spool and the valve end are hardly worn out; low noise rate and vibration, long service life etc.
- 2). Drive device is adjustable French BERNARD electric actuator, which can on/off rapidly or regulates the flow with high precision.
- 3). EFV series electric flow control valve has a pleasing appearance, compact structure, small size, light weight, high sensitivity, non-resistance, easy installation and using.
- 4). Spool uses high wear performance materials; with circular arc opening making the material flows smoothly, no resistance. Spool sealed softly with quality high-density blanket. The adjustment of the seal box can be undergone externally so that to adjust the clearance of the spool and blanket for the purpose of no leakage. The blanket has a long service life, and can be replaced conveniently after worn.

## **Working principle:**

Electric flow control valve can on/off rapidly and regulate the flow within 4 to 20 mA signal. Input 4 mA control signals to electric actuators to make the valve full close, while input 20 mA control signals to electric actuators can make the valve full open. Within the 4 to 20 mA control signals, the valve is in regulating situation, then the valve opening size can be regulated by inputting a certain control signal, thus realize its regulating function.

**Electric Actuator terminals wiring diagram are as follow:**



Spec		Unit	B200	B250	B300	B400	B500	B630
Items								
Valve body	Flow scope	m <sup>3</sup> /h	40-260	60-360	70-480	90-650	110-820	140-1450
	Angle θ	°	71	71	71	71	71	71
	Diameter Width	mm	200	250	300	346	346	346
	Diameter Length	mm	346	346	346	400	500	600
	Circulation Area	m <sup>2</sup>	0.012	0.014	0.017	0.026	0.032	0.051
Electric actuator	Model BERNAED	ASP	ASP	AS50	AS100	AS100	AS100	AS100
	Maximum torque		250	250	500	1000	1000	2000
	Input, output signal mA		4~20					
	Angle θ°		0~90					
	Input power V		380					
Permeable layer	Material		PET5-6	PET5-6	PET5-6	PET5-6	PET5-6	PET5-6
	Ventilation Area	m <sup>2</sup>	0.057	0.064	0.07	0.09	0.09	0.09
	Consumption	m <sup>3</sup> /min	0.5	0.5	0.5	0.5	0.5	0.5
Flow properties		Percentage						
Working temperature		≤120℃						

## Main technique data

Spec Items	Unit	B200	B250	B300	B400	B500	B630	B800
Electric actuator		French BERNARD Electric actuator						
Flow scope	m³/h	40-260	60-360	70-48 0	90-650	110-82 0	140-145 0	160-1600
Circulation Area	m²	0.012	0.014	0.017	0.026	0.032	0.051	0.073



规格	A	B	C	D	E	F	H		
200	435	175	290	507	375	484	257		
250	460	200	340		398	520	272		
300	485	225	390	509					
350	510	250	440					500	
400	535	275	490	655					
500	585	325	590					575	730
630	655	390	730	745	900	450			
800	1074	483	900				655		

### Installation and usage:

- 1). In storage and transit it should be kept properly to avoid the rain and humid.
- 2). Install it according to the instructions shown on the valve, no reverse.
- 3). Before installation, the valve must be carefully inspected and cleaned the packaging materials, to prevent foreign bodies going into the valve and causing abnormal open, close or deadly block.
- 4). When install the flange valve, pay attention to tighten the bolts symmetry and evenly. Valve flange and installation flange must be paralleled, the clearance must be reasonable so as not to cause excessive pressure, and even cracking phenomenon.
- 5). Convenient operation must be considered for the valve installation place. The best height of the valve is 1.2 meters above the operation floor; the standing room should be left for operators if the valve is near the wall or the equipment. Avoid the fault operation.
- 6). We provide plant-driven device, which installed and debugged in the valve before leaving the factory, no need for debugging again. Users only need to finish the connection by the connection diagram for the electric actuator.

### Maintenance:

- 1). Regularly observe the operating conditions after first use, and resolve timely if any problem appears.
- 2). Fill the lubricate oil regularly to maintain the good working conditions of the running parts.
- 3). High-density blanket must be promptly replaced after serious worn or rupture.
- 4). Please regularly check and maintain the integrity of the valve parts.

**Hangzhou Fuyang Hent Electromechanical Engineering Co.,Ltd**

Email:htjd@htgy.cn

<http://www.htgy.cn>