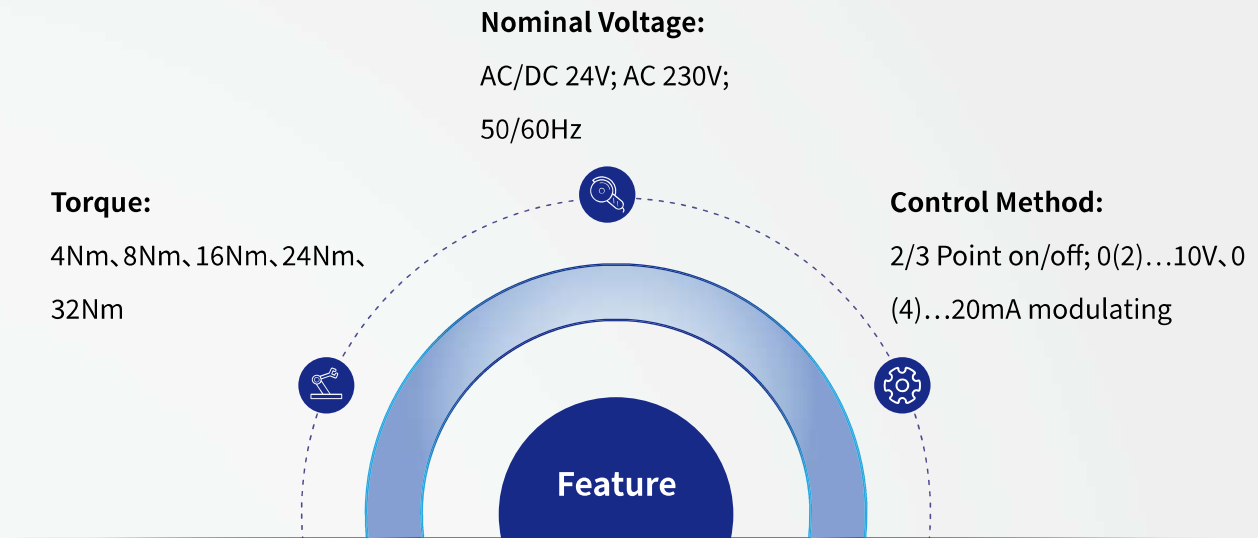


01 ExS6061 Series Explosion-Proof Standard Damper Actuators

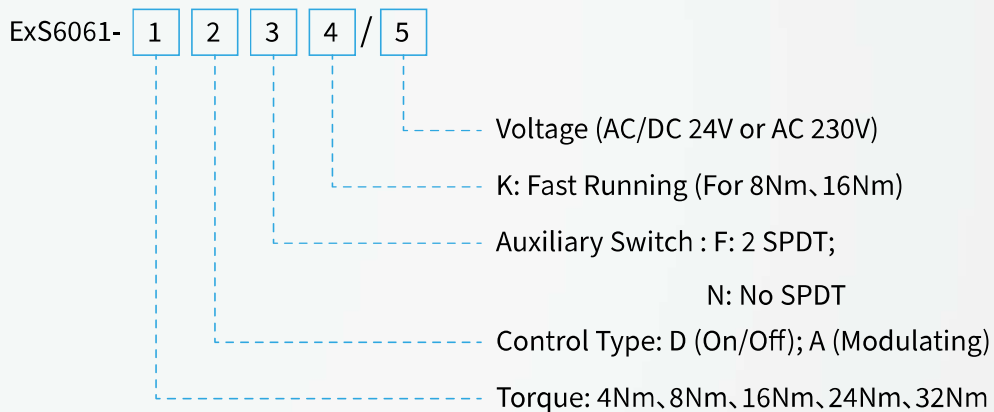
This series of actuators is designed for damper control in environments/workplaces with explosive hazardous gases, steam or combustible dust in HVAC, petroleum, petrochemical, metallurgy, ships, power plants, nuclear power plants, pharmaceutical plants, etc. It has obtained China Compulsory Certification (CCC), EU ATEX, IECEx certification, and Russian EAC certification.



► Features



► Order Code



► Remarks

A (Modulating): AC/DC24V analogue type actuator controlled by 0(2)...10V or 0(4)...20mA ; AC230V analogue type actuator controlled by 0(2)...10V . The factory setting is 0-10V, if you have special requirements, you need to mark it in advance when ordering, and it cannot be changed on site.



ExS6061 Series Explosion-Proof Standard Damper Actuators

► ExS6061 Standard Type Technical Specifications

Model No.	ExS6061-04A	ExS6061-08A	ExS6061-16A	ExS6061-24A	ExS6061-32A	ExS6061-04D	ExS6061-08D	ExS6061-16D	ExS6061-24D	ExS6061-32D
Torque (Nm)	04Nm	08Nm	16Nm	24Nm	32Nm	04Nm	08Nm	16Nm	24Nm	32Nm
Stopping Torque (Nm)	>04Nm	>08Nm	>16Nm	>24Nm	>32Nm	>04Nm	>08Nm	>16Nm	>24Nm	>32Nm
Damper Size (m²)	1m²	2m²	4m²	6m²	6m²	1m²	2m²	4m²	6m²	6m²
Running Time (sec)	15~20s	30~40s	72~88s	117~143s	140~170s	15~20s	30~40s	72~88s	117~143s	140~170s
Nominal Voltage (V)	AC/DC 24V 50/60Hz; AC 230V 50/60Hz(ExS6061-32A AC/DC 24V 50/60H)									
Supply Voltage Range (V)	AC/DC 21.6-26.4V; AC 207-253V									
Power Consumption (on)	4.0W(24V); 4.8W(230V)				2.5W	3.9W(24V); 4.8W(230V)				
Power Consumption (off)	0.7W(24V); 1.0W(230V)				0.3W	0.4W(24V); 1.2W(230V)				
Reactive Power (VA)	7	10				7	10			
Weight (Kg)	5.5Kg									
Control Signal	0(4)...20mA or 0(2)...10V					2 Point / 3 Point				
Position Indication	Mechanical Indicator									
Rotation Angle	Max 93°									
Auxiliary Switch	None or 2 Auxiliary Switches									
Life Cycle	≥10000									
Sound Power Level	45dB									
Electrical Protection Class	II									
Ingress Protection	IP65									
Ambient Temperature	-20~+60℃									
Ambient Humidity	5~95% RH									
Storage Temperature	-30~+70℃									
Shaft Diameter	10*10/12*12mm									
Ex Mark	Ex db II B T6 Gb; Ex tb IIIC T80℃ Db									
Compliance	CCC, ATEX, IECEx, EAC certificates									

► ExS6061 Fast Running Type Technical Specifications

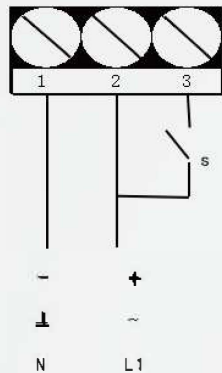
Model No.	ExS6061-08AN(F)K	ExS6061-16AN(F)K	ExS6061-08DN(F)K	ExS6061-16DN(F)K
Torque (Nm)	08Nm	16Nm	08Nm	16Nm
<u>Stopping Torque (Nm)</u>	>8Nm	>12Nm	>8Nm	>12Nm
Damper Size (m²)	2m²	4m²	2m²	4m²
<u>Running Time (sec)</u>	8s	16s	8s	16s
<u>Nominal Voltage (V)</u>	AC/DC 24V 50/60Hz		AC/DC 24V 50/60Hz; AC 230V 50/60Hz	
<u>Supply Voltage Range (V)</u>	AC/DC 21.6-26.4V; AC 207-253V			
Power Consumption (on)	8.5W		7.5W(24V); 10.5W(230V)	
<u>Power Consumption (off)</u>	0.7W		0.5W(24V); 2.5W(230V)	
Reactive Power (VA)	25			
Weight (Kg)	5.5Kg			
Control Signal	0(4)...20mA or 0(2)...10V		2 Point / 3 Point	
Rotation Angle	Max 93°			
<u>Rotation Direction</u>	L/R Switch			
Auxiliary Switch	None or 2 Auxiliary Switches			
Life Cycle	≥10000			
Sound Power Level	45dB			
Electrical Protection Class	II			
Ingress Protection	IP65			
<u>Ambient Temperature</u>	-20~+60℃			
<u>Ambient Humidity</u>	5~95%RH			
<u>Storage Temperature</u>	-30~+70℃			
Shaft Diameter	10*10/12*12mm			
Ex Mark	Ex db II B T6 Gb; Ex tb IIIC T80℃ Db			
Compliance	CCC, ATEX, IECEx, EAC			

ExS6061 Series Explosion-Proof Standard Damper Actuators

► ExS6061 Wiring Diagrams

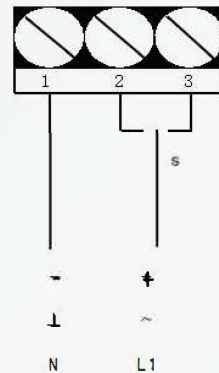
ExS6061-(04~32)DN(F)/24V; ExS6061-(04~32)DN(F)/230V

2-point

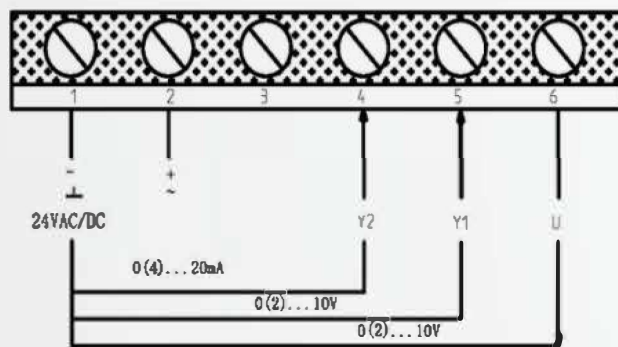


24VAC/DC $\pm 10\%$
230VAC $\pm 10\%$

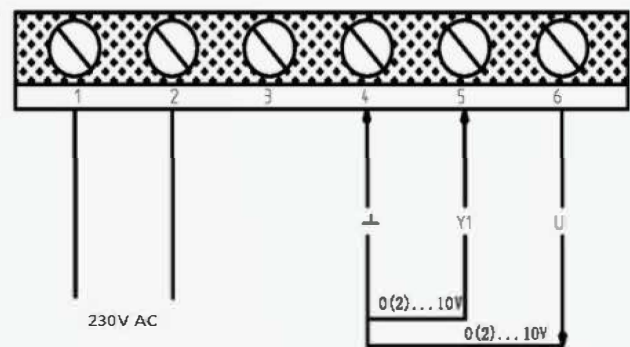
3-point



ExS6061-(04~32)AN(F)/24V ExS6061-(04~24)AN(F)/230V



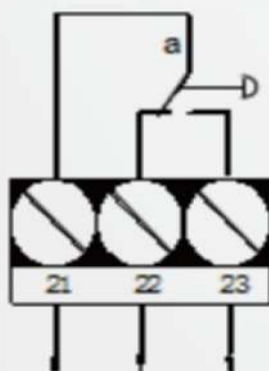
24V AC/DC



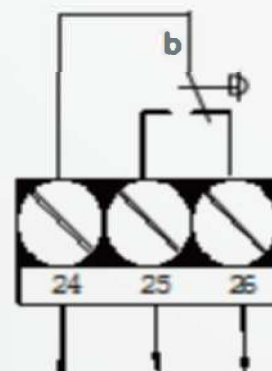
230V AC

► Auxiliary Switch Diagrams

2 auxiliary switches can be included in the actuator, and you can set the angle between 0-90° (Factory setting a sets to 10° and b sets to 80°). It will output an on/off signal when the actuator rotates to the setting angle. (There is no auxiliary switch in the modulating type).



3(1.5)Amp250V



The actuator is at the 0 degree position

► Complies with the Following Standards

- ◆ IEC60079-0:2017, EN60079-0: 2018 Explosive atmospheres – Part 0: Equipment – General requirements.
- ◆ IEC60079-1:2014, EN60079-1: 2014 Explosive atmospheres – Part 2: Equipment protected by flame-proof enclosures "d".
- ◆ IEC60079-31:2022, EN60079-31: 2014 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".

► Uses and Maintenance

- ◆ The thread size of the cable connector and the external enclosure is M20×1.5, the cable diameter is $\Phi 8-\Phi 14.3$, and the cable connector must have a corresponding explosion-proof certificate.
- ◆ The tightening torque of the internal grounding terminal is 2Nm; the tightening torque of the flame-proof surface is 5.5Nm; the external grounding bolt is M4X6, compressing the 4mm² conductor
- ◆ The entrance should be equipped with a cable gland with explosion-proof certification, and a compatible protection mode for the specified purpose.
- ◆ In addition to using the installation manual, the operator should comply with the requirements of EN 60079-14 during assembly, operation and maintenance.
- ◆ Maintenance and overhaul should comply with the requirements of EN 60079-19.
- ◆ Use a damp cloth to clean the product enclosure.
- ◆ The user is forbidden to repair or modify the explosion-proof content.

► Warnings

- ◆ It is strictly forbidden to disassemble privately, and it is strictly forbidden to open the cover when power is on; please do not open it in dangerous places; wipe it with a damp cloth when opening it.
- ◆ After power off, delay 25 minutes before turning on.
- ◆ Potential electrostatic hazards.
- ◆ Use fasteners with a yield stress $\geq 450\text{MPa}$.
- ◆ The fireproof joints cannot be repaired or modified by the user.
- ◆ The installation must be carried out by personnel who have received relevant training or relevant work experience. During the installation process, be careful not to operate with power on, and install the actuator according to the regulations.
- ◆ There are electrical and electronic accessories in the device, so it is forbidden to dispose of it as ordinary garbage after the product is scrapped. The disposal method should comply with the regulations and requirements of the local government.

► Product Functions and Application Instructions

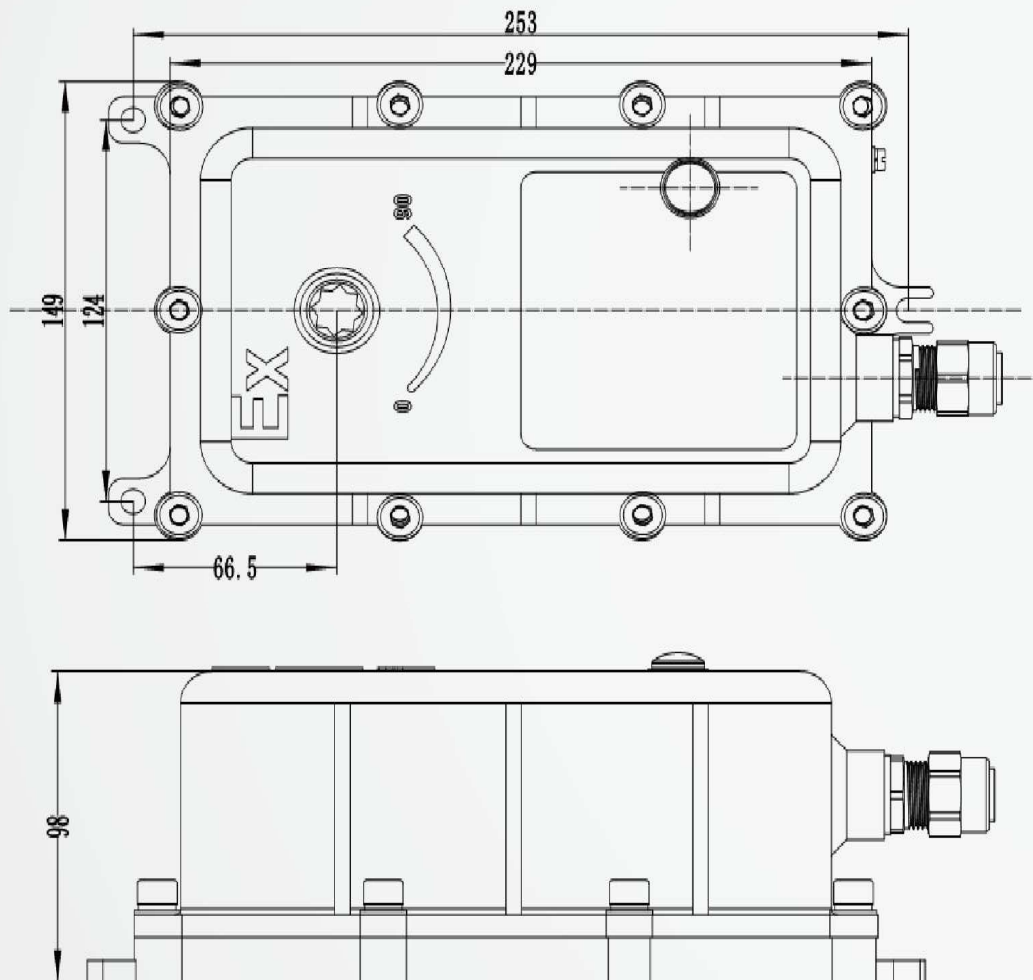
- ◆ Explosion-proof electrical appliances refer to a class of electrical equipment used in places where explosive gases and vapors exist.
- ◆ Coal, petroleum, chemical, textile and other industries in the national economy occupies a very important position, these industries in the production process will produce explosive gas. Steam or explosive dust, such places are called explosive dangerous places.
- ◆ The explosion-proof type air valve actuators produced by our company are Class II (not mine) explosion-proof electrical equipment.

ExS6061 Series Explosion-Proof Standard Damper Actuators

► Special Conditions of Use

- ◆ In normal use, the gap between the shaft and the sleeve may increase due to wear. Since the sleeve and the explosion-proof upper enclosure are tightly fit, the sleeve is not easy to replace. When the gap is greater than the maximum gap specified by the manufacturer, the equipment should be stopped for use.
- ◆ Imported parts should be equipped with Ex-certified cable sheath, and its protection mode should be compatible with the intended use.
- ◆ During assembly, operation and maintenance, the operator should comply with the requirements of EN 60079-14, and should indicate it next to the manual. Repair and overhaul shall comply with EN60079-19.
- ◆ Cannot be used in areas affected by charge generation processes, mechanical friction, separation processes, electron emission and pneumatic transmission of dust.

► ExS6061 Dimensions unit (mm)



1. The installation must be carried out by personnel who have received relevant training or relevant work experience. During the installation process, be careful not to operate with power on, and install the actuator according to the regulations.
2. The device contains electrical and electronic accessories, so it is prohibited to dispose of it as ordinary garbage after the product is scrapped. The disposal method should comply with the regulations and requirements of the local government.