

ExS6061Pro-SF/NS Series Explosion-Proof Fast Running
Spring Return Fire and Smoke Damper Actuators
Non-Spring Return Fire and Smoke Damper Actuators

05 ExS6061Pro-SF/NS Series Explosion-Proof Fast Running Spring Return Fire and Smoke Damper Actuators Non-Spring Return Fire and Smoke Damper Actuators

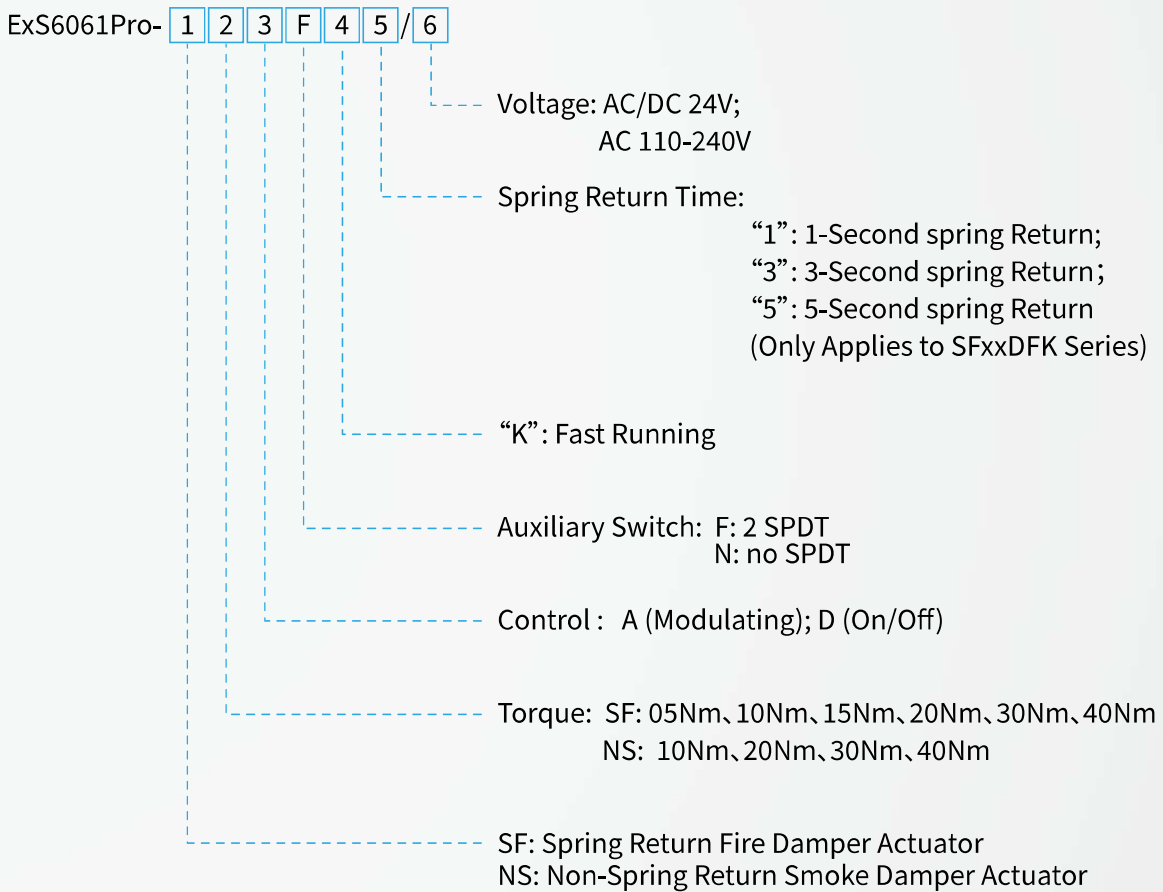
These series of actuators are designed for damper control in environments/workplaces with explosive hazardous gases, steam or combustibile dust in HVAC, petroleum, petrochemical, metallurgy, ships, power plants, nuclear power plants, pharmaceutical plants, etc. They have obtained China Compulsory Certification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



► Features

Torque	Nominal Voltage	Control
SF: 05Nm、10Nm、15Nm、 20Nm、30Nm、40Nm NS: 10Nm、20Nm、30Nm、40Nm	AC/DC 24V AC 110-240V	On/off and Modulating

► Order Code

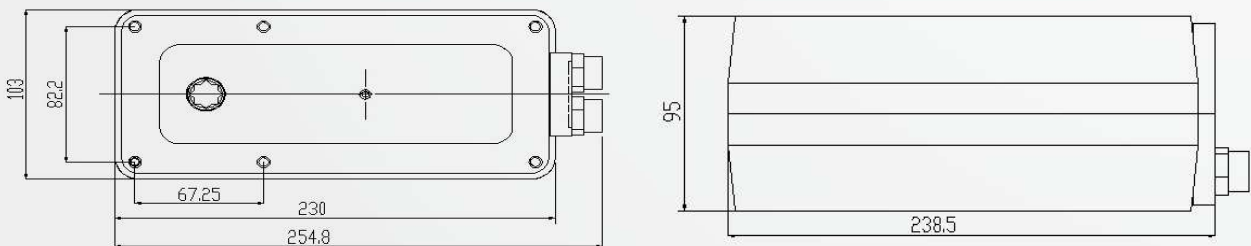


ExS6061Pro-SF Series Explosion-Proof Fast Running Spring Return Fire and Smoke Damper Actuators

► ExS6061Pro-SF05/10A(D)FK Technical Specifications

Items	ExS6061Pro-SF05DFK-3(1)/24V	ExS6061Pro-SF05AFK/24V	ExS6061Pro-SF05DFK-3(1)/AC	ExS6061Pro-SF10DFK-3(1)/24V	ExS6061Pro-SF10AFK/24V	ExS6061Pro-SF10DFK-3(1)/AC
Torque (Nm)	Motor: 5Nm; Spring Return: 5Nm			Motor: 10Nm; Spring Return: 10Nm		
Damper Size(m ²)	1m ²			2m ²		
Running Time(sec)	Motor ≤15s; Spring Return AFK, DFK-3 ≤3s; DFK-1 ≤1s					
Nominal Voltage(V)	AC/DC 19.2-28.8V		AC 110-240V	AC/DC 19.2-28.8V		AC 110-240V
Power Consumption (on)	7			10		
Power Consumption (off)	3			3		
Reactive Power (VA)	50					
Cable	On/off: 1m 3*0.75mm ² ; Modulating: 1m 7*0.5mm ² ; Auxiliary Switch (F): 1m 6*0.5mm ²					
Weight(Kg)	5Kg					
Control Signal	On/Off; Modulating: 0(2)-10V or 0(4)-20mA					
Rotation Angle	Max 93°					
Rotation Direction	Mechanical Indicator					
Auxiliary Switch	2 Auxiliary Switches					
Life Cycle	AFK, DFK-3 ≥10000 Cycles; DFK-1 ≥1000 Cycles					
Sound Power Level	50dB and 62dB					
Electrical Protection Class	II, III					
Ingress Protection	IP66					
Ambient Temperature	-30~+60°C					
Ambient Humidity	5~95% RH					
Storage Temperature	-30~+70°C					
Shaft Diameter	10*10/12*12mm					
Ex Mark	Ex db II C T6 Gb; Ex tb IIIC T85°C Db					
Compliance	CCC, ATEX, IECEx, EAC certificates					

► ExS6061Pro-SF05/10A(D)FK Dimensions unit (mm)

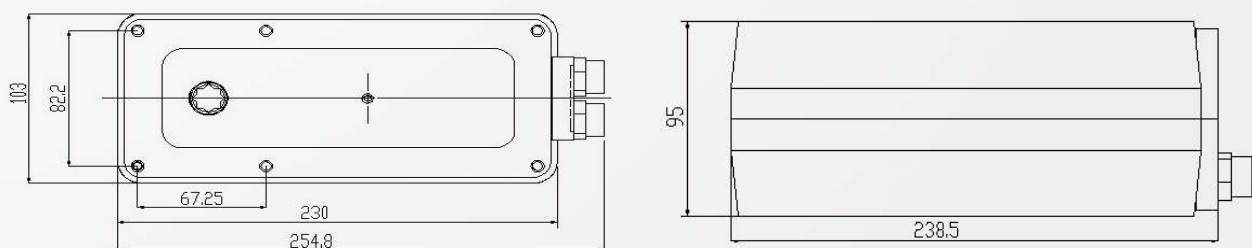


ExS6061Pro-SF Series Explosion-Proof Fast Running Spring Return Fire and Smoke Damper Actuators

► ExS6061Pro-SF15/20A(D)FK Technical Specifications

Items	ExS6061Pro-SF15DFK-3 (1)/24V	ExS6061Pro-SF15AFK/24V	ExS6061Pro-SF15DFK-3(1)/AC	ExS6061Pro-SF20DFK-3 (1)/24V	ExS6061Pro-SF20AFK/24V	ExS6061Pro-SF20DFK-3(1)/AC
Torque (Nm)	Motor: 15Nm; Spring Return: 15Nm			Motor: 20Nm; Spring Return: 18Nm		
Damper Size(m ²)	3m ²			4m ²		
Running Time(sec)	Motor≤15s; Spring Return AFK, DFK-3≤3s; DFK-1≤1s					
Nominal Voltage(V)	AC/DC 19.2-28.8V		AC 110-240V	AC/DC 19.2-28.8V		AC 110-240V
Power Consumption (on)	17			17		
Power Consumption (off)	8			8		
Reactive Power (VA)	50					
Cable	On/off: 1m 3*0.75mm ² ; Modulating: 1m 7*0.5mm ² ; Auxiliary Switch (F): 1m 6*0.5mm ²					
Weight(Kg)	5Kg					
Control Signal	On/Off; Modulating: 0(2)-10V or 0(4)-20mA					
Rotation Angle	Max 93°					
Rotation Direction	Mechanical Indicator					
Auxiliary Switch	2 Auxiliary Switches					
Life Cycle	AFK, DFK-3≥10000 Cycles; DFK-1≥1000 Cycles					
Sound Power Level	55dB and 62dB					
Electrical Protection Class	II, III					
Ingress Protection	IP66					
Ambient Temperature	-30~+60°C					
Ambient Humidity	5~95% RH					
Storage Temperature	-30~+70°C					
Shaft Diameter	10*10/12*12mm					
Ex Mark	Ex db II C T6 Gb; Ex tb IIIC T85°C Db					
Compliance	CCC, ATEX, IECEx, EAC certificates					

► ExS6061Pro-SF15/20A(D)FK Dimensions unit (mm)

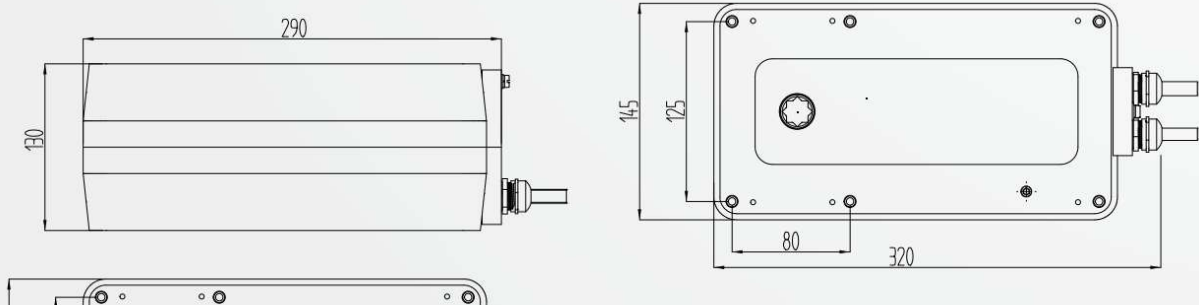


ExS6061Pro-SF Series Explosion-Proof Fast Running Spring Return Fire and Smoke Damper Actuators

► ExS6061Pro-SF30/40DFK Technical Specifications

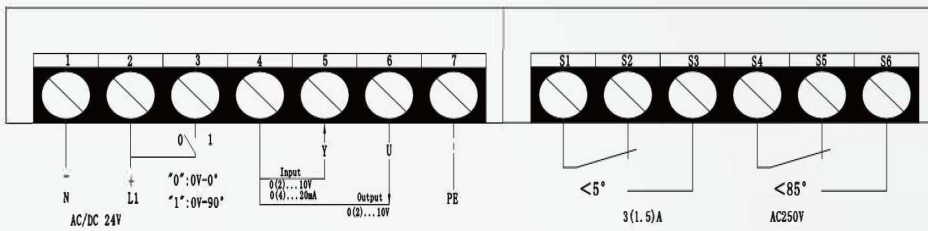
Items	ExS6061-Pro-SF30DFK-5/24V	ExS6061-Pro-SF30DFK-5/AC	ExS6061-Pro-SF40DFK-5/24V	ExS6061-Pro-SF40DFK-5/AC
Torque (Nm)	30Nm		40Nm	
Damper Size(m ²)	6m ²		8m ²	
Running Time(sec)	Motor≤45s; Spring Return≤5s			
Nominal Voltage(V)	AC/DC 19.2-28.8V	AC 110-240V	AC/DC 19.2-28.8V	AC 110-240V
Power Consumption (on)	17		17	
Power Consumption (off)	8		8	
Reactive Power (VA)	90			
Cable	On/off: 1m 3*0.75mm ² ; Modulating: 1m 7*0.5mm ² ; Auxiliary Switch (F): 1m 6*0.5mm ²			
Weight(Kg)	10Kg			
Control Signal	On/Off; Modulating: 0(2)-10V or 0(4)-20mA			
Rotation Angle	Max 93°			
Rotation Direction	Mechanical Indicator			
Auxiliary Switch	2 Auxiliary Switches			
Life Cycle	≥1000 Cycles			
Sound Power Level	65dB			
Electrical Protection Class	II, III			
Ingress Protection	IP66			
Ambient Temperature	-30~+60°C			
Ambient Humidity	5~95% RH			
Storage Temperature	-30~+70°C			
Shaft Diameter	16*16mm (adapter needed for smaller 14*14/12*12mm shafts)			
Ex Mark	Ex db II C T6 Gb; Ex tb IIIC T85°C Db			
Compliance	CCC, ATEX, IECEx, EAC certificates			

► ExS6061Pro-SF30/40A(D)FK Dimensions unit (mm)

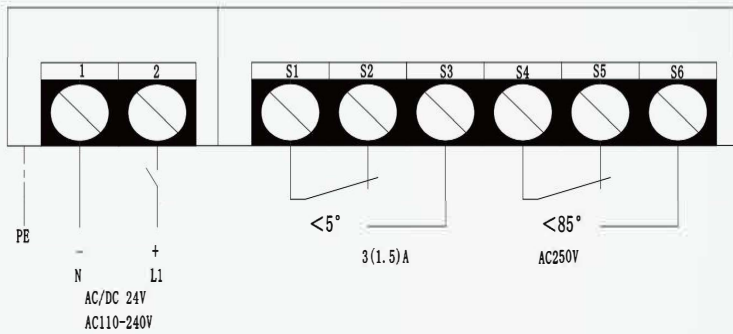


ExS6061Pro-SF/NS Series Explosion-Proof Fast Running Spring Return Fire and Smoke Damper Actuators Non-Spring Return Fire and Smoke Damper Actuators

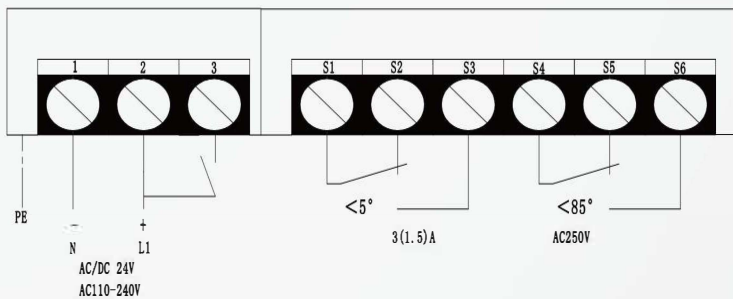
► ExS6061Pro-SF/NS Wiring Diagrams



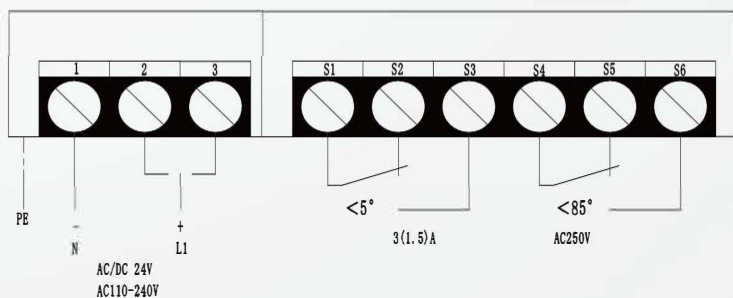
ExS6061Pro-SF On/Off



ExS6061Pro-NS 3 Point



ExS6061Pro-NS 2 Point



ExS6061Pro-SF/NS Series Explosion-Proof Fast Running Spring Return Fire and Smoke Damper Actuators Non-Spring Return Fire and Smoke Damper Actuators

► Complies With The Following Standards

- ◆ GB/T 3836.1-2021 Explosive atmospheres – Part 1: Equipment – General requirements
- ◆ IEC60079-0: 2017, version 7.0, Explosive atmospheres – Part 0: Equipment – General requirements
- ◆ EN60079-0: 2018 Explosive atmospheres – Part 0: Equipment – General requirements
- ◆ GB/T 3836.2-2021 Explosive atmospheres – Part 2: Equipment protected by flameproof enclosures "d"
- ◆ IEC60079-1:2014, version 7.0, Explosive atmospheres – Part 2: Equipment protected by flameproof enclosures "d"
- ◆ EN60079-1: 2014/AC:2018-09 Explosive atmospheres – Part 2: Equipment protected by flameproof enclosures "d"
- ◆ GB/T 3836.31-2021 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
- ◆ IEC60079-31:2022, version 3.0, Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

► Use and Maintenance

- ◆ The thread size of the cable connector and the external enclosure is M16×1.5, the cable diameter is Φ 6- Φ 8, and the cable connector must have a corresponding explosion-proof certificate.
- ◆ The tightening torque of the internal grounding terminal is 2Nm; the external grounding bolt is M4X6, compressing the 4mm² conductor, grounding resistance less than 10 Ω .
- ◆ 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 GB 3836-13 during assembly, operation and maintenance.
- ◆ Maintenance and overhaul should comply with the requirements of GB 3836-16.
The product enclosure should be cleaned with a damp cloth.

► Warnings

- ◆ Potential electrostatic hazards, must be grounded securely, grounding resistance less than 10 Ω , only use a damp cloth to clean the product.
- ◆ Use fasteners with a yield stress of \geq 450MPa.
- ◆ The fireproof joints cannot be repaired or modified by the user.

► Special Conditions of Use

- ◆ Ambient temperature: $-30^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$.
- ◆ Potential electrostatic hazards.
- ◆ Fireproof joints cannot be repaired or modified by the user.
- ◆ At the cable entry, cable glands or plugs with IP66 protection and separate quality certificate should be installed.

► Product Functions and Application Instructions

- ◆ The explosion-proof type air valve actuators produced by our company are Class II and Class III electrical equipment.
- ◆ A (Analogue): AC/DC24V analogue actuator can achieve 0(2)~10V or 0(4)~20mA control. The factory default is 0-10V control. If there are special requirements, they must be marked in advance when ordering, and cannot be changed on site.