

FEATURES

- Designed to drive dampers in Building Automation Control and various mechanical ventilation systems
- Direct-coupled design accommodates damper shafts of varying diameters
- Manual operation button allows gear disengagement and manual reset during power failure
- Suitable for dampers area with a Max. size of approximately 0.8 m²
- removable terminal box design for easier installation and wiring



DESCRIPTION

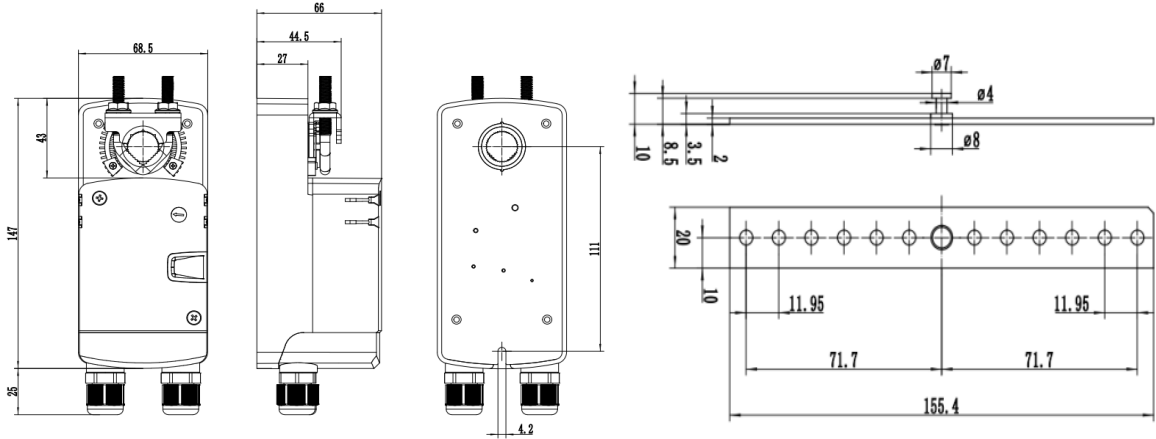
The LFZ05 Standard Type Damper Actuator utilizes a brushless motor, offering a long service life, high reliability, and low operational noise. Control options include On/Off/2-point/ 3-point wiring, analog control signals (0(2)-10 VDC or 0(4)-20 mA), and RS485 communication. With a direct-coupled design, the actuator can be mounted directly onto the damper shaft for easy installation; the design of the terminal box and waterproof cable gland further enhances the convenience of on-site wiring. This series is widely applicable for driving dampers in Building Automation Systems (HVAC) and various mechanical ventilation systems across diverse sectors, including commercial buildings, industrial facilities, public utilities, and other applications.

SPECIFICATION

Electrical Parameters				
Rated Voltage	AC/DC 24V 50/60Hz		AC 100...240V 50/60Hz	
Voltage Range	AC/DC 19.2...28.8V		AV 85...264V	
Power Consumption	Running power < 4.5W; Holding power < 1W			
Electrical Grade	Class III (SELV)		Class II (Double Insulation)	
Electrical Connection	Terminal connection (14-22 AWG)			
Control Mode	On/Off / Two-Point / Three-Point	0(2)-10VDC	0(4)-20mA	RS485
Feedback Method	None	0(2)-10VDC	0(4)-20mA	RS485
Feedback Switch	2xSPDT 250V/3A			
Important Note	When using an AC power supply with products featuring RS485 output, an isolated power supply must be used!			
Function Parameters				
Torque	5Nm			
Compatible Damper Area	0.8m²			
Rotation Direction	Selectable via rotary switch			
Manual Operation	Gear lock can be disengaged by button for manual reset			
Rotation Angle	≤95°			
Running Time	110s			
Noise Level	@1m≤40dB			
Position Indication	Mechanical indicator			
Operating Life	100,000 cycles (full stroke)			
Operating Ambient				
Enclosure Protection Class	IP54			
Operating Ambient Temperature	-20~60℃			
Storage Ambient Temperature	-40~80℃			
Max. Ambient Humidity	5%~95%(non-condensing) / EN 60730-1			

Dimension & Weight	
Dimension	Refer to dimensional drawings
Damper Shaft Length	>50mm
Damper Shaft Specification	○6...16mm(round) □8x8...12x12mm(square)
Weight	0.65 kg (24V On/Off type)

DIMENSION (mm)



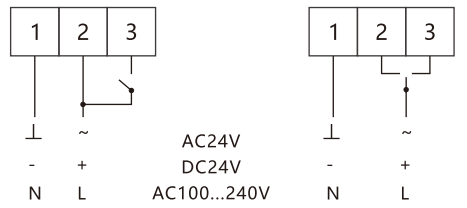
ORDER REF NO.

Code and description					Note
LFZ05	5Nm Damper Actuator				Model
	24	AC/DC 24VAC 100...240V			Power Supply
	230	AC 100...240V			
		A	Analog Control		Control Method
		D	On/Off Control		
		M	RS485		
			N/A	None	Analog Signal
			0V	0-10V	
			2V	2-10V	
			0A	0-20mA	
			4A	4-20mA	
			N/A	Without built-in feedback switch	Built-in Switch
			S	With two built-in feedback switches	
LFZ05	24	A	0V	-S	Selection Example

1. Example: LFZ0524A0V-S represents the following options: 24 VAC/DC power supply; analog control and feedback signals of 0-10V; and two built-in feedback switches.
2. The [Analog Signal] option can only be selected when the Control Mode is set to A [Analog]. If the Control Mode is set to [On/Off] or [RS485], this field must be set to N/A [None]; the corresponding code will not appear in the model designation.

WIRING INSTRUCTION

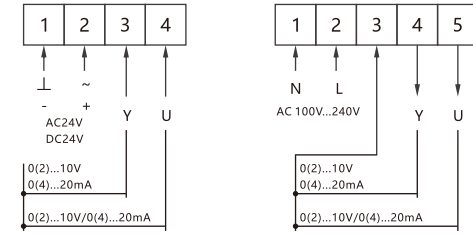
Digital Output Type



Two-Wire Connection

Three-Wire Connection

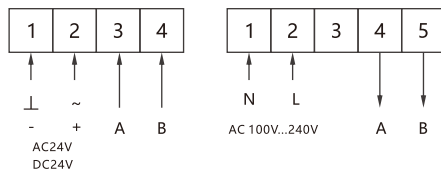
Analog Output Type



24V Actuator

230V Actuator

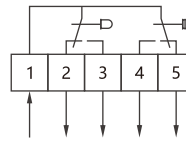
RS485 Type



24V Actuator

230V Actuator

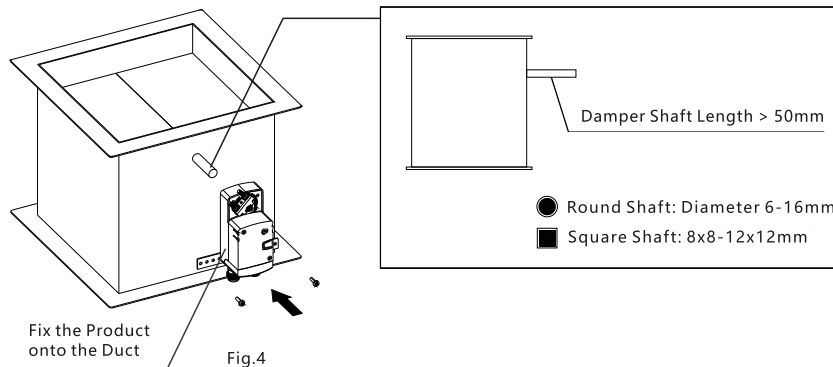
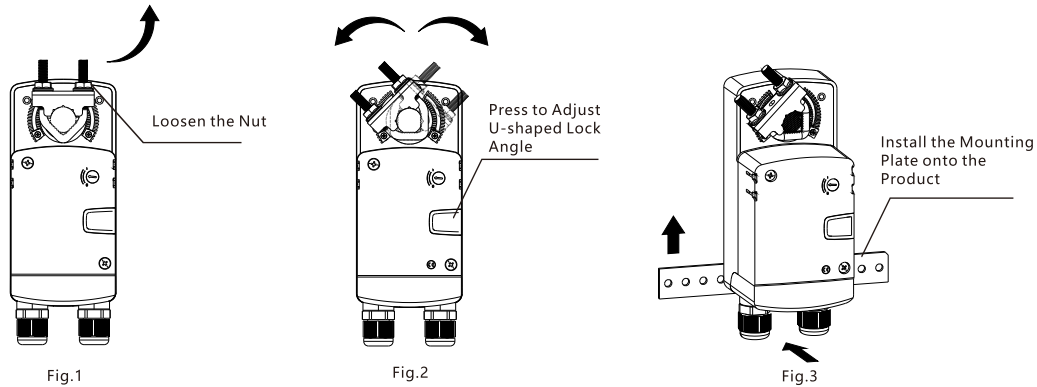
Built-in Feedback Switch



Resistive Load: 3A, 230V

Inductive Load: 1.5A, 230V

INSTALLATION METHOD



1. As shown in Figure 1, loosen the nuts on the U-bolt clamp before installation.
2. As shown in Figure 2, press the manual operation button and manually rotate the actuator to the 0° position (closed position) according to the required rotation direction.
3. As shown in Figure 3, this actuator is compatible with the connecting shaft specifications illustrated; insert the U-bolt clamp onto the damper's connecting shaft, and simultaneously, as shown in Figure 4, install the mounting bracket into the designated mounting holes on the actuator.
4. As shown in Figure 3, once the actuator's angle is synchronized with the damper, tighten the U-bolt clamp nuts with a wrench to securely fix the actuator to the damper shaft; subsequently, use the self-tapping screws provided in the accessory kit to secure both ends of the mounting bracket to the damper's mounting surface.
5. Open the actuator's terminal box and complete the electrical connections in accordance with the wiring instructions; upon completion, tighten the screws and waterproof cable gland nuts securely to ensure proper protection performance.