Model LF120 / LF230
On/Off, Spring Return Fail Safe, 120/230 VAC

Torque min. 35 in-lb, for control of air dampers

Application
For On/Off, fail-safe control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer’s specifications. Control is On/Off from an auxiliary contact, or a manual switch.

The actuator is mounted directly to a damper shaft from 3/8” up to 1/2” in diameter by means of its universal clamp. 1/2” shaft centered at delivery. For shafts up to 3/4” use K6-1 accessory. A crank arm and several mounting brackets are available for applications where the actuator cannot be direct coupled to the damper shaft.

Operation
The LF series actuators provide true spring return operation for reliable fail-safe application and positive close off on air tight dampers. The spring return system provides consistent torque to the damper with, and without, power applied to the actuator.

The LF series provides 95° of rotation and is provided with a graduated position indicator showing 0° to 95°. The actuator may be stalled anywhere in its normal rotation without the need of mechanical end switches. Power consumption is reduced in holding mode. The actuator is double insulated so an electrical ground connection is not necessary.

The LF120-S US and LF230-S US versions are provided with 1 built-in auxiliary switch. This SPDT switch is provided for safety interfacing or signaling, for example, for fan start-up. The switching function is adjustable between 0° and 95°.

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Standards. Actuators shall be as manufactured by Belimo. 

Actuators shall be UL Approved and CSA certified, have a 5 year warranty, and be manufactured under ISO 9001 International Quality Control listings. 

Actuators shall be designed so that they may be used for either clockwise or counterclockwise fail-safe operation. Actuators shall be protected from overload at all angles of rotation. 

On/Off spring return damper actuators shall be direct coupled type which require no crankarm and linkage and be capable of direct mounting to a shaft up to a 3/4" diameter and center a 1/2" shaft. The actuators must be designed so that they may be used for either clockwise or counterclockwise fail-safe operation. 

CAUTION Equipment damage! 

Provide overload protection and disconnect as required. 

Actuators may be connected in parallel. Power consumption and input impedance must be observed. 

No ground connection is required. 

For end position indication, interlock control, fan startup, etc., LF120-S US and LF230-S US incorporate one built-in auxiliary switch: 1 x SPDT, 3A (0.5A) @250 VAC, UL Approved, adjustable 0° to 95°. 

APPLICATION NOTES 

Meets cULus requirements without the need of an electrical ground connection. 

WARNING Live Electrical Components! 

During installation, testing, servicing and troubleshooting of this product, it maybe necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury. 

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