

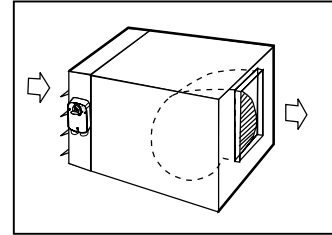
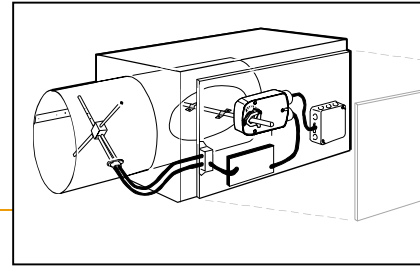
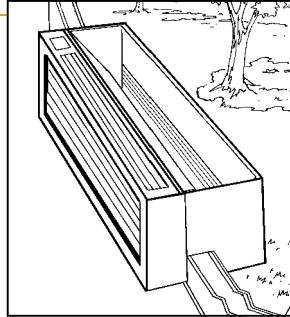
Minimum 35 in-lb torque

- For damper areas up to 8 sq-ft*

Applications

Cost effective quality and performance for a range of applications including:

- Classroom Unit Ventilators
- Fan/Coil Units
- VAV Terminal Units
- Economizer Units
- Airhandlers
- Control Dampers



LF Series - At A Glance		Actuator Models																			
		LF24 US (p. 66)	LF24-S US (p. 66)	LF120 US (p. 68)	LF120-S US (p. 68)	LF230 US (p. 68)	LF230-S US (p. 68)	LF24-3- US (p. 70)	LF24-3-S US (p. 70)	LFC24-3-R US (p. 72)	LFC24-3-S US (p. 72)	LF24-SR US (p. 74)	LF24-SR-S US (p. 74)	LF24-SR-E US (p. 76)	LF24-ECON-R03 US (p. 80)	LF24-ECON-R10 US (p. 80)	LF24-MFT US (p. 84)	LF24-MFT-S US (p. 84)	LF24-MFT-20 US (p. 86)	LF24-MFT-20-S US (p. 86)	
Torque:	35 in-lb	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Power supply:	24 VAC/DC	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●
	120 VAC			●	●																
	230 VAC					●	●														
Control signal:	on-off	●	●	●	●	●	●														
	floating point							●	●	●	●										
	proportional 2 to 10 VDC											●	●	●							
	6 to 9 VDC																			●	●
	Multi-function**																		●	●	
Feedback:	3kΩ NTC type 10 thermistor														●						
	10kΩ NTC type 7 thermistor															●					
Auxiliary output, 20 VDC (to power controller)	2 to 10 VDC											●	●	●	●	●					
	VDC variable**																	●	●	●	●
Running time motor:	<75 sec	●	●	●	●	●	●														
	150 sec constant							●		●		●	●	●							
	90 sec constant								●		●										
	Adj. 75 to 300 sec.***																		●	●	●
spring: <25 sec	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
External direction of rotation switch								●	●	●	●	●	●	●	●	●	●	●	●	●	●
Plenum rated cable, 18 GA								●			●		●	●	●	●					
Conduit fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Appliance cable	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Built-in auxiliary switch		●		●		●		●		●		●		●		●		●		●	
LF24-SR-E US operation ..(p. 78)		Installation instructions ..(p. 88–92)																			
General wiring(p. 93)		Start-up and checkout ..(p. 94)																			

*Based on 4 in-lb/ft² damper torque loading. Parallel blade. No edge seals. **Default 2 to 10 VDC. ***Default 150 seconds.

LF24 (-S) US

On-off, Spring Return Fail-Safe, 24 V



Technical Data	LF24 (-S) US
Power supply	24 VAC \pm 20% 50/60 Hz 24 VDC \pm 10%
Power consumption	running: 5 W; holding: 2.5 W
Transformer sizing	7 VA (class 2 power source)
Electrical connection	3 ft, 18 GA appliance cable (LF24-S US has 2 cables) 1/2" conduit connector
Overload protection	electronic throughout 0 to 95° rotation
Angle of rotation	max. 95°, adjust. with mechanical stop
Torque	35 in-lb [4 Nm]
Direction of rotation	reversible with cw/ccw mounting
Position indication	visual indicator, 0° to 95° (0° is spring return position)
Auxiliary switch (LF24-S)	1 x SPDT 3A (0.5A) @ 250 VAC, UL listed adjustable 0° to 95° (double insulated)
Running time (nominal)	motor: < 40 to 75 sec spring: < 25 sec @ -4°F to +122°F [-20°C to +50°C] < 60 sec @ -22°F [-30°C]
Humidity	5 to 95% RH non-condensing
Ambient temperature	-22°F to +122°F [-30°C to +50°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Housing	NEMA type 2 / IP54
Housing material	zinc coated steel
Agency listings	UL 873 listed, CSA C22.2 No.24 certified, CE
Noise level	max: running < 50 db (A) spring return 62 dB (A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	LF24 3.1 lbs (1.40 kg) LF24-S 3.2 lbs (1.45 kg)

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, digital output, or a manual switch.

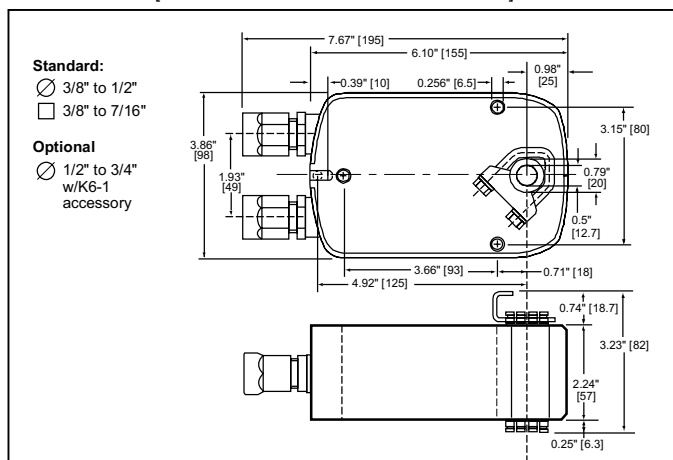
The actuator is mounted directly to a damper shaft from 3/8" up to 1/2" in diameter by means of its universal clamp, 1/2" shaft centered at delivery. For shafts up to 3/4" use K6-1 accessory. A crank arm and several mounting brackets are available for applications where the actuator cannot be direct 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 LF24-S US version is 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°. The auxiliary switch in the LF24-S is double insulated so an electrical ground connection is not necessary.

Dimensions [All numbers in brackets are in millimeters.]



J20741 - Subject to change. © Belimo Aircontrols (USA), Inc.

D010

Accessories

AV 10-18	Shaft extension (K6-1 is required)
IND-LF	Damper position indicator
K6-1	Universal clamp for up to 3/4" diameter shafts
KH-LF	Crankarm for up to 1/2" round shaft
Tool-06	8mm and 10 mm wrench
ZG-LF2	Crankarm adaptor kit for LF
ZG-112	Mounting bracket for Honeywell Mod IV, M6415 type actuators, and new installations
ZG-LF112	Crankarm adaptor kit for Honeywell Mod IV, M6415 type actuators, and new installations
ZS-100	Weather shield (metal)
ZS-150	Weather shield (polycarbonate)
ZS-260	Explosion-proof housing

Note: When using LF24 US and LF24-S US actuators, only use accessories listed on this page.

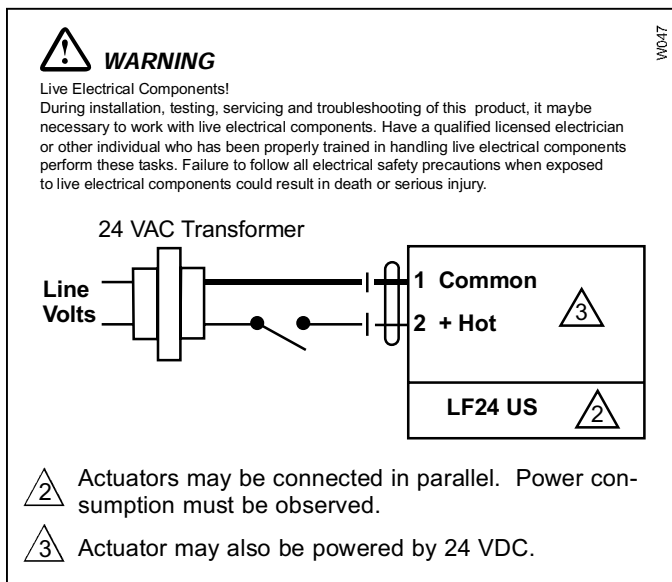
For Actuator Wiring Information and Diagrams, Please See Belimo Wiring Guide (pg 349).

LF24 (-S) US Typical Specification

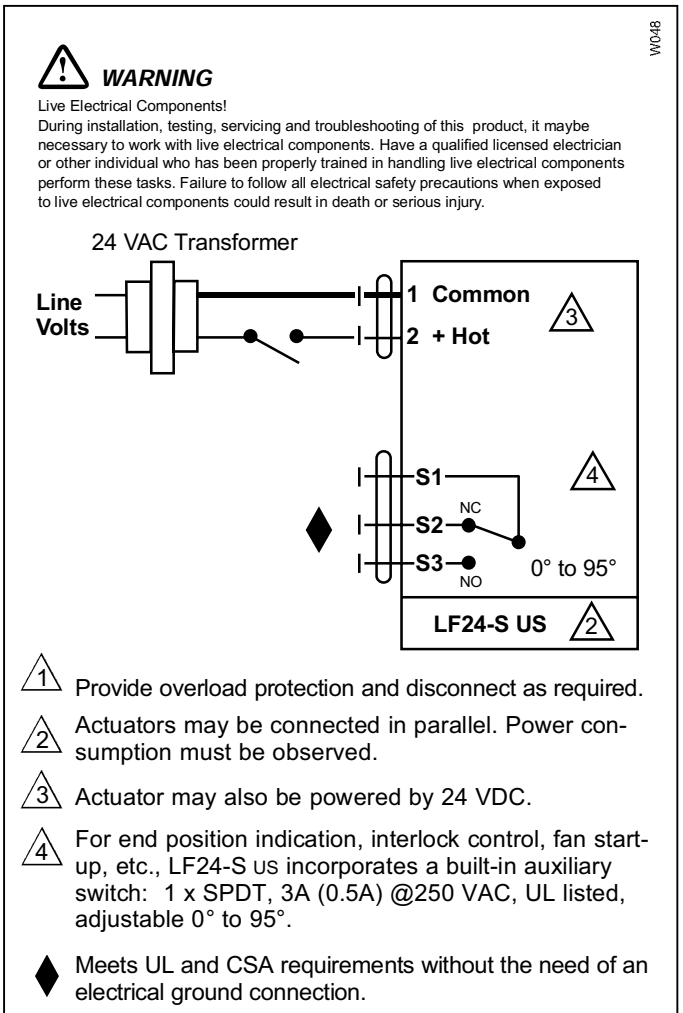
On-off spring return damper actuators shall be direct coupled type which require no crankarm and linkage and be capable of direct mounting to a shaft up to a 3/4" diameter and center a 1/2" shaft. The actuators must be designed so that they may be used for either clockwise or counterclockwise fail-safe operation. Actuators shall be protected from overload at all angles of rotation. If required, 1 SPDT auxiliary switch shall be provided having the capability of being adjustable. Actuators with auxiliary switch must be constructed to meet the requirements for Double Insulation so an electrical ground is not required to meet agency listings. Actuators shall be UL listed and CSA certified, have a 5 year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall be as manufactured by Belimo.

J20741 - Subject to change. © Belimo Aircontrols (USA), Inc.

Wiring Diagrams



On-off wiring for LF24 US



On-off wiring for LF24-S US

LF

W048

LF120 (-S) US / LF230 (-S) US

On-off, Spring Return Fail-Safe, 120/230 VAC



Technical Data	LF120 (-S) US	LF230 (-S) US
Power supply	120 VAC ± 10% 50/60 Hz	230 VAC ± 10% 50/60 Hz
Power consumption	running: 5.5 W holding: 3.5 W	5 W 3 W
Transformer sizing	7.5 VA	7 VA
Electrical connection	3 ft, 18 GA appliance cable (-S models have 2 cables) 1/2" conduit connector	
Overload protection	electronic throughout 0 to 95° rotation	
Electrical protection	actuators are double insulated	
Angle of rotation	max 95°, adjust. with mechanical stop	
Torque	35 in-lb [4 Nm] constant torque	
Direction of rotation	reversible with cw/ccw mounting	
Position indication	visual indicator, 0° to 95° (0° is spring return position)	
Auxiliary switch (-S models)	1 x SPDT 3A (0.5A) @ 250 VAC, UL listed adjustable 0° to 95°	
Electrical protection	actuators are double insulated	
Running time (nominal)	motor: < 40 to 75 sec spring: < 25 sec @ -4°F to +122°F [-20°C to +50°C] < 60 sec @ -22°F [-30°C]	
Humidity	5 to 95% RH non-condensing	
Ambient temperature	-22°F to +122°F [-30°C to +50°C]	
Storage temperature	-40°F to +176°F [-40°C to +80°C]	
Housing	NEMA type 2 / IP54	
Housing material	zinc coated steel	
Agency listings	UL 873, CSA C22.2 No. 24 Certified, CE [LF230(-S) US]	
Noise level	max: running < 50 db (A) spring return 62 dB (A)	
Servicing	maintenance free	
Quality standard	ISO 9001	
Weight	LF120/230	3.4 lbs (1.54 kg)
	LF120/230-S	3.5 lbs (1.60 kg)

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.

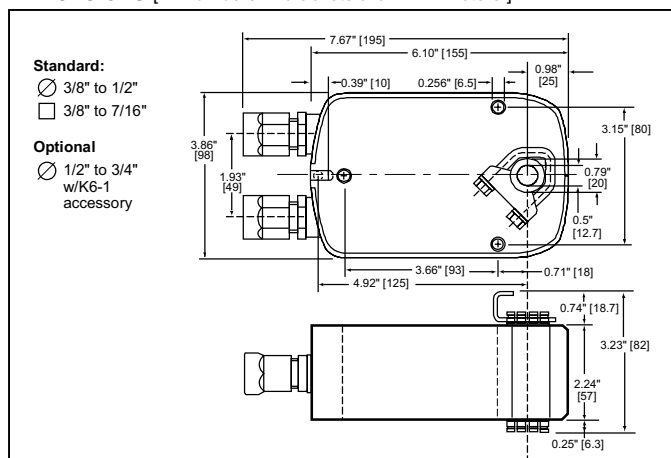
The actuator is mounted directly to a damper shaft from 3/8" up to 1/2" in diameter by means of its universal clamp, 1/2" shaft centered at delivery. For shafts up to 3/4" use K6-1 accessory. A crank arm and several mounting brackets are available for applications where the actuator cannot be direct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

Dimensions [All numbers in brackets are in millimeters.]



J20741 - Subject to change. © Belimo Aircontrols (USA), Inc.

Accessories

AV 10-18	Shaft extension (K6-1 is required)
IND-LF	Damper position indicator
K6-1	Universal clamp for up to 3/4" diameter shafts
KH-LF	Crankarm for up to 1/2" round shaft
Tool-06	8mm and 10 mm wrench
ZG-LF2	Crankarm adaptor kit for LF
ZG-112	Mounting bracket for Honeywell Mod IV, M6415 type actuators, and new installations
ZG-LF112	Crankarm adaptor kit for Honeywell Mod IV, M6415 type actuators, and new installations
ZS-100	Weather shield (metal)
ZS-150	Weather shield (polycarbonate)
ZS-260	Explosion-proof housing

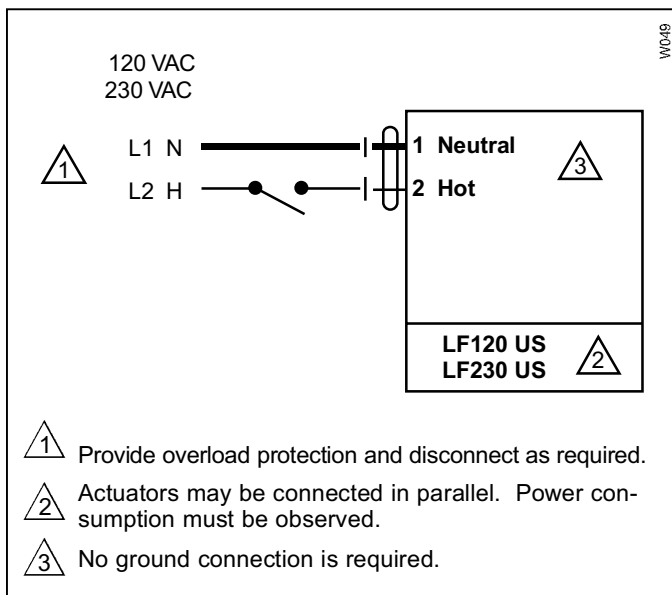
Note: When using LF120/230 US and LF120-S/230-S US actuators, only use accessories listed on this page.

For Actuator Wiring Information and Diagrams, Please See Belimo Wiring Guide (pg 349).

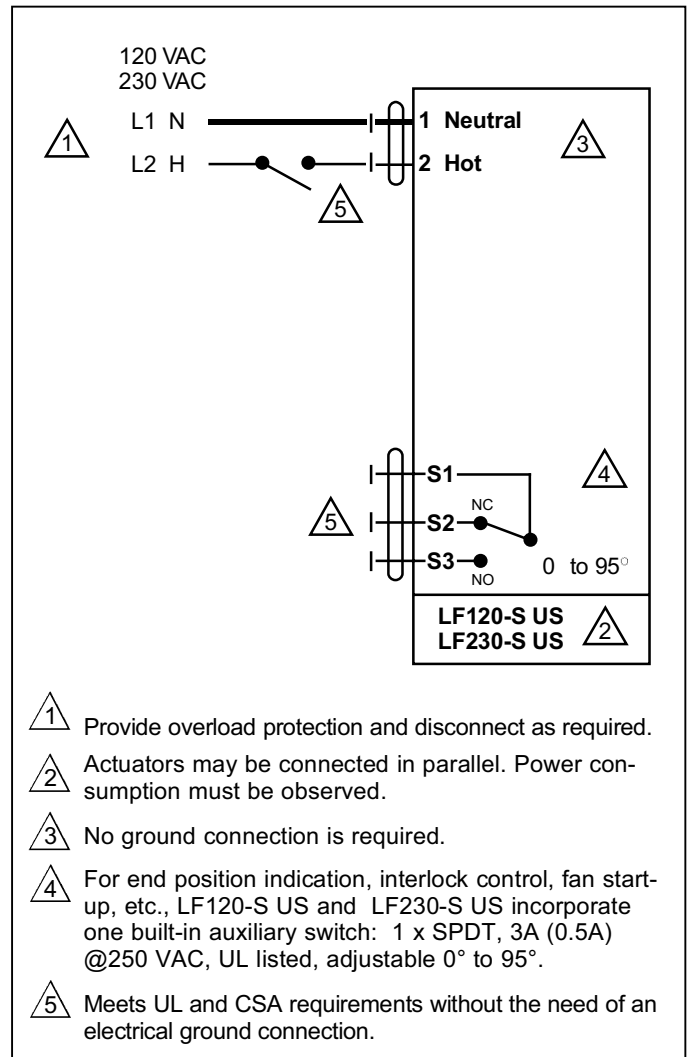
LF120 (-S) US / LF230 (-S) US Typical Specification

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. Actuators shall be protected from overload at all angles of rotation. If required, 1 SPDT auxiliary switch shall be provided having the capability of being adjustable. Actuators must be constructed to meet the requirements for Double Insulation so an electrical ground is not required to meet agency listings. Actuators shall be UL listed and CSA certified, have a 5 year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall be as manufactured by Belimo.

Wiring Diagrams



On-off wiring for LF120 US / LF230 US



On-off wiring for LF120-S US / LF230-S US

LF24-3 (-S) US

On-off, Spring Return Fail-Safe, Reversible, Floating Point, 24V



Technical Data	LF24-3 (-S) US
Power supply	24 VAC \pm 20% 50/60 Hz 24 VDC \pm 10%
Power consumption	running: 2.5 W; holding: 1 W
Transformer sizing	5 VA (class 2 power source)
Electrical connection	LF24-3 US 3 ft, plenum rated cable LF24-3-S US 3 ft, 18 GA appliance cables (2) 1/2" conduit connector
Overload protection	electronic throughout 0 to 95° rotation
Input impedance	1000 Ω (0.6w) control inputs
Angle of rotation	max. 95°, adjust. with mechanical stop
Torque	35 in-lb [4 Nm]
Direction of rotation	spring: reversible with cw/ccw mounting motor: reversible with built-in switch
Position indication	visual indicator, 0° to 95° (0° is spring return position)
Auxiliary switch (LF24-3-S US)	1 x SPDT 3A (0.5A) @ 250 VAC, UL listed adjustable 0° to 95° (double insulated)
Running time	motor: 150 sec constant, independent of load spring: < 25 sec @-4°F to +122°F [-20°C to +50°C] < 60 sec @-22°F [-30°C]
Humidity	5 to 95% RH non-condensing
Ambient temperature	-22°F to +122°F [-30°C to +50°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Housing	NEMA type 2 /IP54
Housing material	zinc coated metal
Agency listings	UL 873 listed; CSA C22.2 No. 24 certified, CE
Noise level	max: running < 30 db (A) spring return 62 db (A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	LF24-3 3.1 lbs (1.40 kg) LF24-3-S 3.6 lbs (1.45 kg)

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

Application

For modulation or on-off control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications.

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.

Control is floating point from a triac or relay, or on-off from an auxiliary contact from a fan motor contactor, controller, or manual switch.

Operation

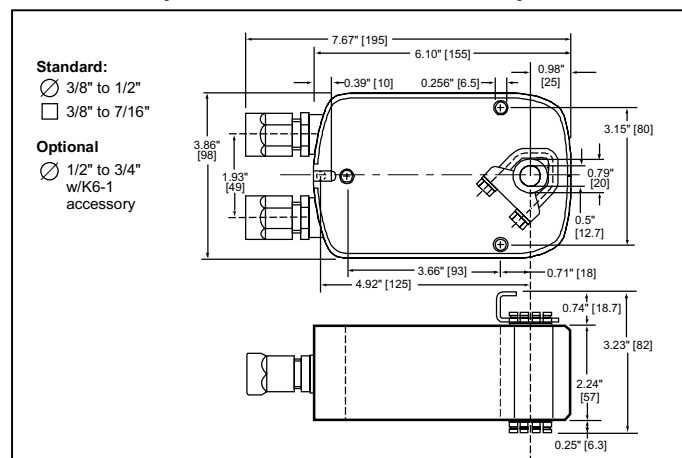
The LF series actuators provide true spring return operation for reliable fail-safe application and positive close-off on air tight dampers. The spring return system provides consistent torque to the damper with, and without, power applied to the actuator.

The LF series provides 95° of rotation and is provided with a graduated position indicator showing 0 to 95°.

The LF24-3 (-S) US uses a brushless DC motor which is controlled by an Application Specific Integrated Circuit (ASIC) and a microprocessor. The microprocessor provides the intelligence to the ASIC to provide a constant rotation rate. The ASIC monitors and controls the brushless DC motor's rotation and provides a digital rotation sensing function to prevent damage to the actuator in a stall condition. 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 LF24-3-S US version is 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°. The auxiliary switch in the LF24-3-S US is double insulated so an electrical ground is not necessary.

Dimensions [All numbers in brackets are in millimeters.]



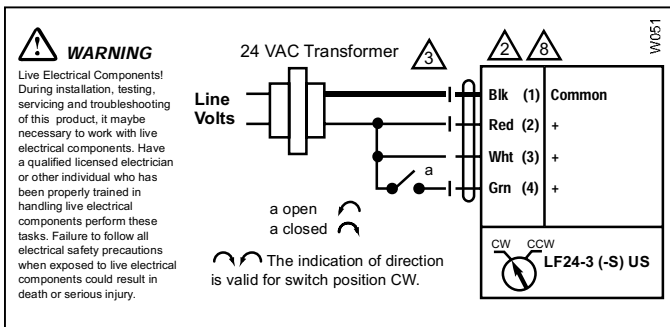
Accessories

- AV 10-18 Shaft extension (K6-1 is required)
- IND-LF Damper position indicator
- K6-1 Universal clamp for up to 3/4" diameter shafts
- KH-LF Crankarm for up to 1/2" round shaft
- Tool-06 8mm and 10 mm wrench
- ZG-LF2 Crankarm adaptor kit for LF
- ZG-112 Mounting bracket for Honeywell Mod IV, M6415 type actuators, and new installations
- ZG-LF112 Crankarm adaptor kit for Honeywell Mod IV, M6415 type actuators, and new installations
- ZS-100 Weather shield (metal)
- ZS-150 Weather shield (polycarbonate)
- ZS-260 Explosion-proof housing

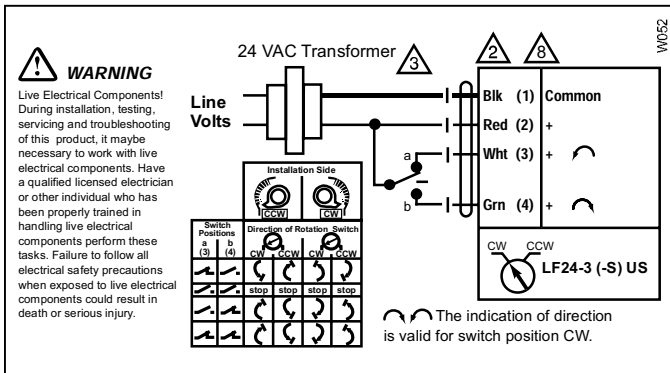
Note: When using LF24-3 (-S) US actuators, only use accessories listed on this page.

For Actuator Wiring Information and Diagrams, Please See Belimo Wiring Guide (pg 349).

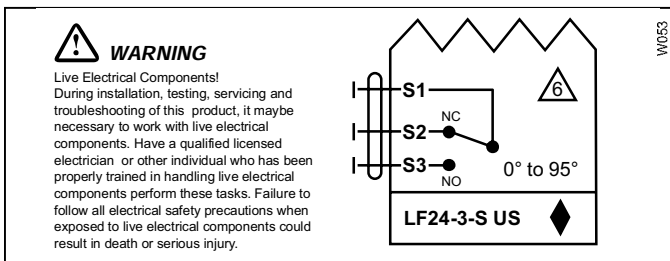
Wiring Diagrams



On-Off control of LF24-3 (-S) US



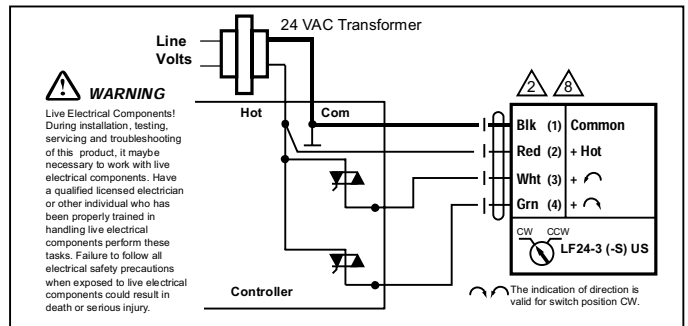
Floating point control of LF24-3 (-S) US



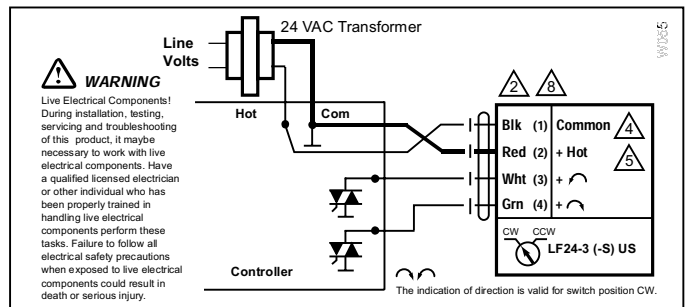
Auxiliary switch of LF24-3 (-S) US

LF24-3 (-S) US Typical Specification

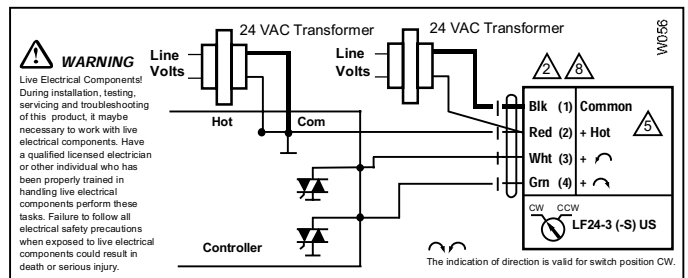
Floating point, on-off spring return damper actuators shall be direct coupled type which require no crankarm and linkage and be capable of direct mounting to a shaft up to a 3/4" diameter and center a 1/2" shaft. The actuators must be designed so that they may be used for either clockwise or counterclockwise fail-safe operation. Actuators shall have an external direction of rotation switch to reverse control logic. Actuators shall use a brushless DC motor and be protected from overload at all angles of rotation. If required, 1 SPDT auxiliary switch shall be provided having the capability of being adjustable. Actuators with auxiliary switch must be constructed to meet the requirements for Double Insulation so an electrical ground is not required to meet agency listings. Run time shall be constant and independent of torque. Actuators shall be UL listed and CSA certified, have a 5 year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall be as manufactured by Belimo.



Triac source



Triac sink



Triac sink with separate transformers

Notes:

- 2 Actuators may be connected in parallel. Power consumption must be observed.
- 3 May also be powered by 24 VDC.
- 4 The Common connection from the actuator must be connected to the Hot connection of the controller.
- 5 The actuator Hot must be connected to the control board Common.
- 6 For end position indication, interlock control, fan startup, etc., LF24-3-S US LF120-S US and LF230-S US incorporate one built-in auxiliary switch: 1 x SPDT, 3A (0.5A) @250 VAC, UL listed, adjustable 0° to 95°.
- Meets UL and CSA requirements without the need of an electrical ground connection.
- 8 Actuators with plenum rated cable do not have numbers on wires; use color coded instead. Actuators with appliance rated cable use numbers.

LF24-SR (-S) US



Proportional Damper Actuator, Spring Return Fail-Safe, 24 V for 2 to 10 VDC, or 4 to 20 mA Control Signal.
Output Signal of 2 to 10 VDC for Position Indication.



Technical Data	LF24-SR (-S) US
Power supply	24 VAC \pm 20% 50/60 Hz 24 VDC \pm 10%
Power consumption	running: 2.5 W; holding: 1 W
Transformer sizing	5 VA (class 2 power source)
Electrical connection	LF24-SR US 3 ft, plenum rated cable LF24-SR-S US 3 ft, 18 GA appliance cables (2) 1/2" conduit connector
Overload protection	electronic throughout 0 to 95° rotation
Operating range Y	2 to 10 VDC, 4 to 20mA
Input impedance	100 k (0.1 mA), 500 Ω
Feedback output U	2 to 10 VDC (max. 0.7 mA) for 95°
Angle of rotation	max. 95°, adjust. with mechanical stop
Torque	35 in-lb [4 Nm]
Direction of rotation	spring: reversible with cw/ccw mounting motor: reversible with built-in switch
Position indication	visual indicator, 0° to 95° (0° is spring return position)
Auxiliary switch (LF24-SR-S US)	1 x SPDT 3A (0.5A) @ 250 VAC, UL listed adjustable 0° to 95° (double insulated)
Running time (nominal)	motor: 150 sec constant, independent of load spring: < 25 sec @ -4°F to +122°F [-20°C to +50°C] < 60 sec @ -22°F [-30°C]
Humidity	5 to 95% RH non-condensing
Ambient temperature	-22°F to +122°F [-30°C to +50°C]
Storage temperature	-40°F to +176°F [-40°C to +80°C]
Housing	NEMA type 2 / IP54
Housing material	zinc coated metal
Agency listings	UL 873 listed; CSA C22.2 No. 24 certified, CE
Noise level	max: running < 30 db (A) spring return 62 db (A)
Servicing	maintenance free
Quality standard	ISO 9001
Weight	LF24-SR 3.1 lbs (1.40 kg) LF24-SR-S 3.2 lbs (1.45 kg)

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

Application

For proportional modulation of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications.

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.

The actuator operates in response to a 2 to 10 VDC, or with the addition of a 500 Ω resistor, a 4 to 20 mA control input from an electronic controller or positioner. A 2 to 10 VDC feedback signal is provided for position indication or master-slave applications.

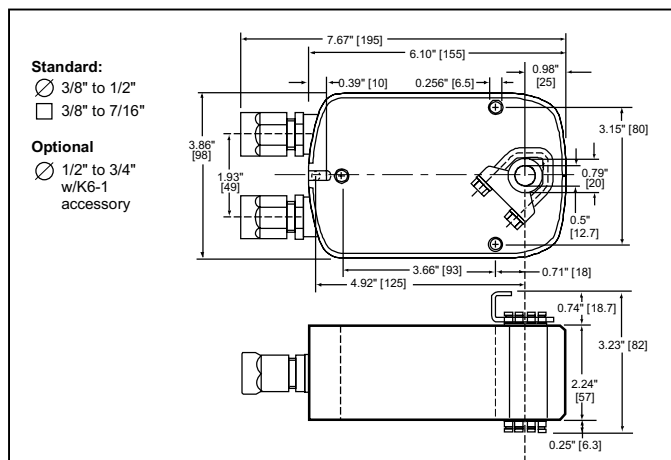
Operation

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 LF24-SR (-S) US uses a brushless DC motor which is controlled by an Application Specific Integrated Circuit (ASIC) and a microprocessor. The microprocessor provides the intelligence to the ASIC to provide a constant rotation rate and to know the actuator's exact fail-safe position. The ASIC monitors and controls the brushless DC motor's rotation and provides a digital rotation sensing function to prevent damage to the actuator in a stall condition. 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 LF24-SR-S US version is 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°. The auxiliary switch in the LF24-SR-S US is double insulated so an electrical ground in not necessary.

Dimensions [All numbers in brackets are in millimeters.]



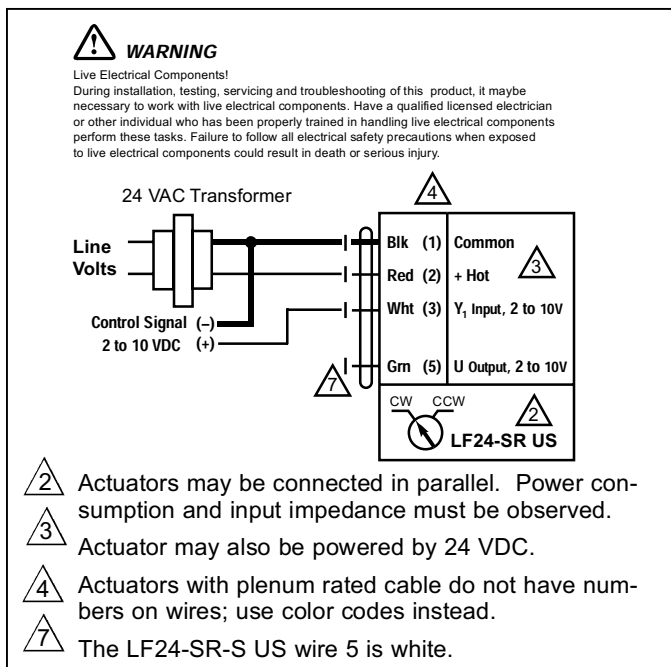
Proportional Damper Actuator, Spring Return Fail-Safe, 24 V for 2 to 10 VDC, or 4 to 20 mA Control Signal. Output Signal of 2 to 10 VDC for Position Indication.

Accessories

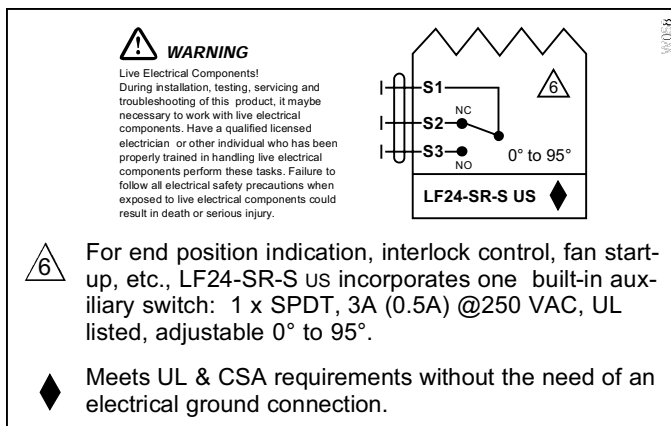
AV 10-18	Shaft extension (K6-1 is required)
IND-LF	Damper position indicator
K6-1	Universal clamp for up to 3/4" diameter shafts
KH-LF	Crankarm for up to 1/2" round shaft
SGA24	Min. and/or man. positioner in NEMA 4 housing
SGF24	Min. and/or man. positioner for flush panel mounting
Tool-06	8mm and 10 mm wrench
ZG-LF2	Crankarm adaptor kit for LF
ZG-112	Mounting bracket for Honeywell Mod IV, M6415 type actuators, and new installations
ZG-LF112	Crankarm adaptor kit for Honeywell Mod IV, M6415 type actuators, and new installations
ZG-R01	500Ω resistor for 4 to 20 mA control signal
ZS-100	Weather shield (metal)
ZS-150	Weather shield (polycarbonate)
ZS-260	Explosion-proof housing

Note: When using LF24-SR (-S) US actuators, only use accessories listed on this page.

Wiring Diagrams



2 to 10 VDC control of LF24-SR (-S) US

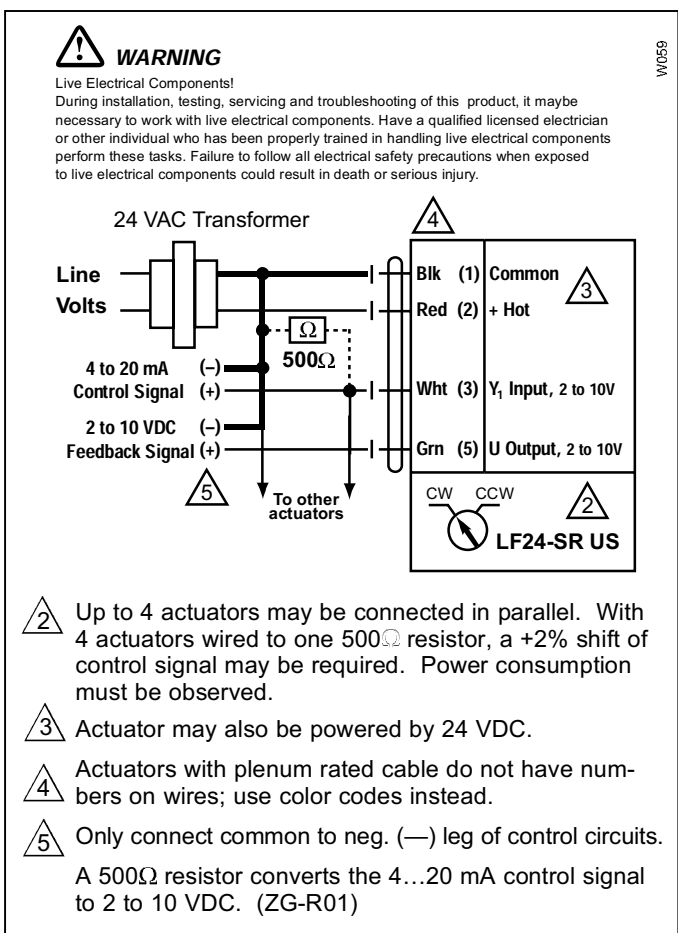


Auxiliary switch of LF24-SR-S US

LF24-SR (-S) US Typical Specification

Spring return control 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 actuator must provide proportional damper control in response to a 2 to 10 VDC or, with the addition of a 500 resistor, a 4 to 20 mA control input from an electronic controller or positioner. The actuators must be designed so that they may be used for either clockwise or counterclockwise fail-safe operation. Actuators shall use a brushless DC motor controlled by a microprocessor and be protected from overload at all angles of rotation. Run time shall be constant, and independent of torque. A 2 to 10 VDC feedback signal shall be provided for position feedback or master-slave applications. If required, 1 SPDT auxiliary switch shall be provided having the capability of being adjustable. Actuators with auxiliary switch must be constructed to meet the requirements for Double Insulation so an electrical ground is not required to meet agency listings. Actuators shall be UL listed and CSA certified, have a 5 year warranty, and be manufactured under ISO 9001 International Quality Control Standards. Actuators shall be as manufactured by Belimo.

For Actuator Wiring Information and Diagrams, Please See Belimo Wiring Guide (pg 349).



4 to 20 mA control of LF24-SR (-S) US with 2 to 10 VDC feedback output