



5-year warranty

Technical data

Functional data	Mounting Position	90° to 180°
	Servicing	maintenance-free
Safety data	Quality Standard	ISO 9001
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
Materials	Housing material	galvanized steel
	Stem	steel
	Bearing	GF Delrin
	Frame, plate, base	galvanized steel
Suitable actuators	Non-Spring	AMB(X) GMB(X) NMB(X)
	Spring	AF EFB(X) LF NF
	Electrical fail-safe	NKQB(X)

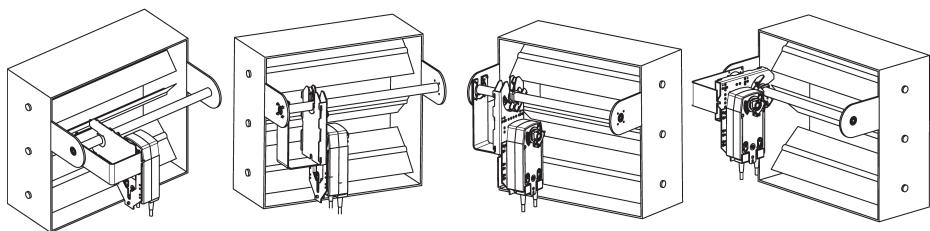
* ZG-121 adapter must be used with EF. ** GM/GK not for use with 1/2" shafts. *** K6-1 clamp must be used with LF. For close-off pressure reference Select Pro or Retrofit Technical Documentation.

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Product features

Default/Configuration	The ZG-JSL linkage can also be configured by moving the anti-rotation plate 90° for space-saving applications. See mounting configurations below. The ZG-JSLA will have a factory mounted actuator on the linkage in the vertical position only.
Application	The ZG-JSL jackshaft linkage is designed to easily attach to any part of a jackshaft and allow easy installation of select Belimo actuators. The unique open ended design and clamp insert allows the ZG-JSL to be used with any jackshaft from 1/2" to 3/4" in diameter. Removal of the insert will allow the linkage to attach to a maximum shaft diameter of 1.05". Changing the antirotation plate will allow various actuators to be mounted.
Operation	The 3/4" diameter built-in steel shaft allows direct coupling to the Belimo series actuators in the chart below. There is a torque reduction when using the ZG-JSL linkage. Verify application requirements before use.

Flow/Mounting details

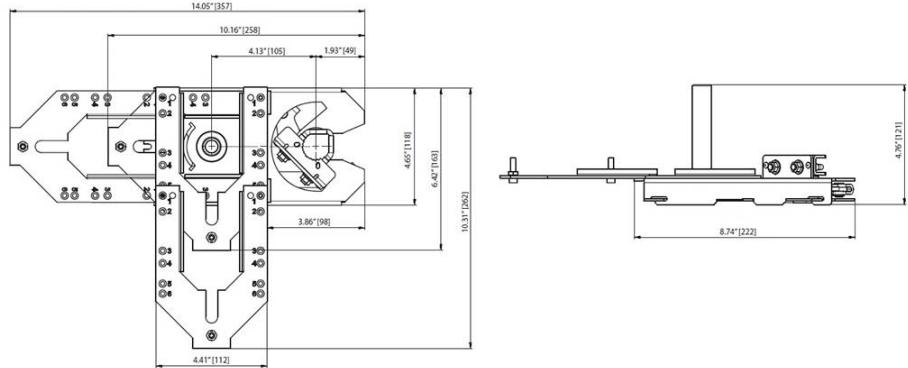


Accessories

Mechanical accessories	Description	Type
	ZG-JSL support plate for EFB(X)	ZG-121

Dimensions

Dimensional drawings



Type	Weight
ZG-JSL	5.2 lb [2.4 kg]

Basic Fail-Safe actuator for controlling dampers in typical commercial HVAC applications.

- Torque motor 35 in-lb [4 Nm]
- Nominal voltage AC 100...240 V
- Control On/Off
- 1x SPDT



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Electrical data	Nominal voltage	AC 100...240 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 85...264 V
	Power consumption in operation	3.5 W
	Power consumption in rest position	2 W
	Transformer sizing	6.5 VA
	Auxiliary switch	1x SPDT, 1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V, adjustable 0...95°
	Switching capacity auxiliary switch	1 mA...3 A (0.5 A inductive), DC 5 V...AC 250 V
	Electrical Connection	(2) 18 GA appliance cables, 3 ft [1 m], with 1/2" NPT conduit connectors
	Overload Protection	electronic throughout 0...95° rotation
	Electrical Protection	actuators are double insulated
Functional data	Torque motor	35 in-lb [4 Nm]
	Direction of motion motor	selectable with switch 0/1
	Direction of motion fail-safe	reversible with cw/ccw mounting
	Angle of rotation	Max. 95°
	Running Time (Motor)	75 s / 90°
	Running time fail-safe	<25 s @ -4...122°F [-20...50°C], <60 s @ -22°F [-30°C]
	Noise level, motor	50 dB(A)
	Noise level, fail-safe	62 dB(A)
	Position indication	Mechanical
Safety data	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. To UL 873 and CAN/CSA C22.2 No. 24-93
	Quality Standard	ISO 9001
	UL 2043 Compliant	Suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC
	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Servicing	maintenance-free

Technical data

Weight	Weight	3.6 lb [1.6 kg]
Materials	Housing material	galvanized steel

Footnotes †Rated Impulse Voltage 4kV, Type of Action 1.AA.B, Control Pollution Degree 3.

Accessories

Electrical accessories	Description	Type
Auxiliary switch, mercury-free		P475
Auxiliary switch, mercury-free		P475-1
Signal simulator, Power supply AC 120 V		PS-100
Conduit box converter		ZG-CBLS
Electrical junction box		
Mechanical accessories	Description	Type
Shaft extension 170 mm ø10 mm for damper shaft ø6...16 mm		AV6-20
End stop indicator		IND-LF
Shaft clamp for LF..		K6 US
Shaft clamp reversible, clamping range ø16...20 mm		K6-1
Ball joint suitable for damper crank arm KH8 / KH10		KG10A
Ball joint suitable for damper crank arm KH8		KG6
Ball joint suitable for damper crank arm KH8		KG8
Damper crank arm Slot width 8.2 mm, for ø1.05"		KH12
Damper crank arm Slot width 6.2 mm, clamping range ø10...18 mm		KH6
Damper crank arm Slot width 8.2 mm, clamping range ø10...18 mm		KH8
Actuator arm, clamping range ø8...16 mm, Slot width 8.2 mm		KH-LF
V-bolt Kit for KH-LF.		KH-LFV
Anti-rotation bracket LF.		LF-P
Push rod for KG10A ball joint L 36", 3/8" diameter		SH10
		SH8
Wrench 0.32 in and 0.39 in [8 mm and 10 mm]		TOOL-06
Angle of rotation limiter, with end stop		ZDB-LF
Form fit adapter 8x8 mm		ZF8-LF
Mounting bracket		ZG-109
Linkage kit		ZG-110
Mounting bracket for LF..		ZG-112
		ZG-DC1
		ZG-DC2
LF crankarm adaptor kit (includes ZG-112).		ZG-LF112
LF crankarm adaptor kit (T bracket included).		ZG-LF2
Shaft extension for 3/8" diameter shafts (4" L).		ZG-LMSA-1
Shaft extension for 1/2" diameter shafts (5" L).		ZG-LMSA-1/2-5
Weather shield 13x8x6" [330x203x152 mm] (LxWxH)		ZS-100
Baseplate, for ZS-100		ZS-101
Weather shield 406x213x102 mm [16x8-3/8x4"] (LxWxH)		ZS-150
Explosion proof housing 16x10x6.435" [406x254x164 mm] (LxWxH), UL and CSA, Class I, Zone 1&2, Groups B, C, D, (NEMA 7), Class III, Hazardous (classified) Locations		ZS-260
Weather shield 17-1/4x8-3/4x5-1/2" [438x222x140 mm] (LxWxH), NEMA 4X, with mounting brackets		ZS-300
Weather shield 17-1/4x8-3/4x5-1/2" [438x222x140 mm] (LxWxH), NEMA 4X, with mounting brackets		ZS-300-5
Shaft extension 1/2"		ZS-300-C1
Shaft extension 3/4"		ZS-300-C2
Shaft extension 1"		ZS-300-C3

Accessories

Description	Type
Linkage kit Jackshaft RetroFIT+ Linkage with Belimo Rotary Actuators	ZG-JSL

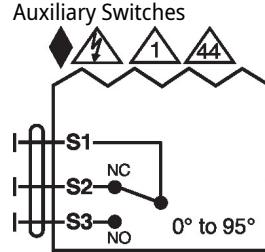
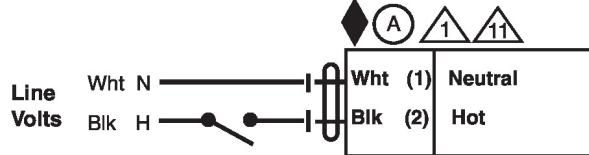
Electrical installation

⚠ Warning! Live electrical components!
During installation, testing, servicing and troubleshooting of this product, it may be 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.

- ◆ Meets cULus requirements without the need of an electrical ground connection.
- ◆ Apply only AC line voltage or only UL-Class 2 voltage to the terminals of auxiliary switches. Mixed or combined operation of line voltage/safety extra low voltage is not allowed.
- (A) Actuators with appliance cables are numbered.
- ◆ Provide overload protection and disconnect as required.
- ◆ Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.
- ◆ One built-in auxiliary switch (1x SPDT), for end position indication, interlock control, fan startup, etc.

Wiring diagrams

On/Off



Dimensions

