

Fail-Safe actuator used in typical Fire and Smoke damper applications

- Torque motor 70 in-lb [8 Nm] Nominal voltage AC 120 V
- Control On/Off
- @ 350°F [177°C] for 30 min
- 15 s, 15 s Motor/Fail-safe





## **Technical data**

Electrical data	Nominal voltage	AC 120 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 96132 V
	Power consumption in operation	27 VA
	Power consumption in rest position	6 W, 9 VA (50 Hz 15 VA), End stop 55 VA, 0.5 A slow blow fuse *
	Transformer sizing	27 VA
	Electrical Connection	18 GA, 3 ft [1 m], 3 color coded wires
	Overload Protection	electronic thoughout 090° rotation
Functional data	Torque motor	70 in-lb [8 Nm] @ 350°F [177°C] for 30 min
	Angle of rotation	Max. 95°
	Running Time (Motor)	15 s / 90°
	Running time motor note	at rated voltage and torque 32122°F [050°C]
	Running time fail-safe	15 s
	Noise level, motor	45 dB(A)
	Noise level, fail-safe	62 dB(A)
Safety data	Power source UL	Class 2 Supply
	Degree of protection IEC/EN	IP40
	Degree of protection NEMA/UL	NEMA 1
	Enclosure	UL Enclosure Type 1
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02 NYC Department of Buildings MEA 197-07-M
	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	32122°F [050°C ]
	Storage temperature	-40176°F [-4080°C]
	Servicing	maintenance-free
Weight	Weight	6.6 lb [3.0 kg]
	Packaging quantity	Multipack 60 pcs.
Materials	Housing material	galvanized steel



Footnotes † UL File XAPX.E108966

for AF..

Safety notes		
Ń	<ul> <li>* Neither UL nor Belimo require local over-current protection. The higher peak current when driving against any type of stop. If used, a local fuse or breaker to be increased to avoid nuisance opening or blow should be used for AC 24 V. A 0.5 A slow blow should be used slow blow should be used for 230 V and a 0.3 A slow blow for AC 20 that while a 24 V 100 VA transformer would handle 2 actuators, a 4 insufficient. A 5 A slow blow would be required.</li> <li>Belimo Fire &amp; Smoke actuators have passed the AMCA 520 and UL test. No special cycling is required during prolonged periods when and held there. Periodic testing of dampers and actuators per loca NFPA 105 are required.</li> <li>The actuator contains no components which the user can replace of connector, these actuators are identical to the conduit connector vertex.</li> </ul>	this requires the value of or tripping. A 2.5 A slow for AC 120 V. A 0.25 A 08 V. Transformers: Note A breaker or plug fuse is 5555 Long Term Holding actuator is driven open I codes and NFPA 80 and or repair. A 1/2" threaded or. Other than the
Product features		
Application	The FS series of spring-return actuators are designed for the operati listed fire/smoke dampers in ventilation and air-conditioning system	
Operation	The actuator is mounted in its fail safe position with the damper blac Upon applying power, the actuator drives the damper to the open p spring is tensioned at the same time. If the power supply is interrup damper back to its fail-safe position.	osition. The internal
Typical specification	All smoke and combination fire and smoke dampers shall be provide FSNF, or FSAF series actuators. All substitutions must be approved be Damper and actuator shall have UL555S Listing for 250°F and/or 350 been tested to UL2043 per requirements of IMC 602.2 and NEC 300.2 indication is required -S models with auxiliary switches shall be prov	efore submission of bid. )°F. Actuator shall have 22 (c). Where position
Accessories		
Electrical accessories	Description	Туре
	Thermoelectric tripping device, Duct inside temperature 165°F Auxiliary switch 2x SPDT	BAE165 US S2A-F US
Mechanical accessories	Description	Туре
	Anti-rotation bracket, for AF / NF End stop indicator for AF / NF Shaft clamp	AF-P IND-AF2 K4-1 US

Weather shield 13x8x6" [330x203x152 mm] (LxWxH)

Weather shield 406x213x102 mm [16x8-3/8x4"] (LxWxH)

Actuator arm, clamping range ø10...20 mm

Angle of rotation limiter for Classic AF/NF.

Mounting bracket for AF..

Mounting bracket

Crank arm adapter kit

Incl. mounting hardware

for AF / NF

KH-AF KH-AF-1 US SH8

ZDB-AF2 US

ZG-100

ZG-101

ZG-AF US

ZG-AF108

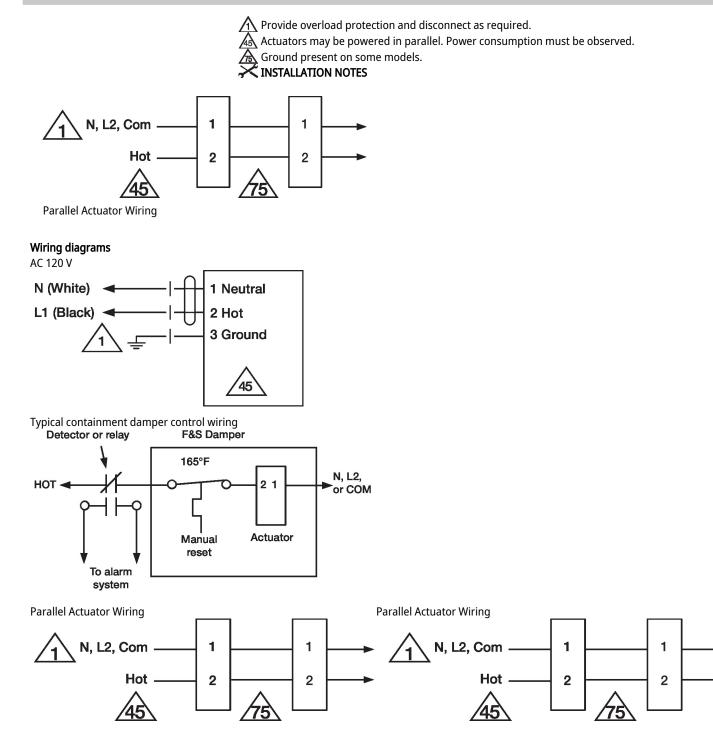
ZS-100

ZS-150



Description	Туре
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
-	ZG-DC2
	ZG-DC1

## **Electrical installation**





## Dimensions

