



5-year warranty



Technical data

Electrical data	Nominal voltage	AC 230 V
	Nominal voltage frequency	50/60 Hz
	Nominal voltage range	AC 207...253 V
	Power consumption in operation	37 VA
	Power consumption in rest position	10 W, 19 VA (60 Hz 12 VA), End stop 54 VA, 0.25 A slow blow fuse *
	Connection supply	3 Leads 0.9 m, 18 AWG with 1/2" NPT conduit connector
	Electrical connection	7838]
	Overload Protection	electronic throughout 0...95° rotation
	Electrical Protection	grounded housing, 230 V
Functional data	Torque motor	20 Nm @ 177°C for 30 min
	Direction of motion motor	selectable by ccw/cw mounting
	Direction of motion fail-safe	reversible with cw/ccw mounting
	Angle of rotation	95°
	Running time motor	25 s / 90°
	Running time fail-safe	<15 s
	Sound power level, motor	70 dB(A)
	Sound power level, fail-safe	73 dB(A)
	Position indication	Mechanical
Safety data	Degree of protection IEC/EN	IP40
	Degree of protection NEMA/UL	NEMA 1
	Housing	UL Enclosure Type 1
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, Listed to UL 2043 - suitable for use in air plenums per Section 300.22(C) of the NEC and Section 602 of the IMC.
	Quality Standard	ISO 9001, RoHS (EU-Directive 2011/65/EU)
	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	0...50°C [32...122°F]
	Storage temperature	-40...80°C [-40...176°F]
	Servicing	maintenance-free
Weight	Weight	3.1 kg

Technical data

Materials	Housing material	Galvanized steel
	Gears	Steel, permanently lubricated

Safety notes



- * Neither UL nor Belimo require local over-current protection. The FSAF_A actuators draw higher peak current when driving against any type of stop. After 10 seconds current drops to the lower holding level. If used, this requires the value of a local fuse or breaker to be increased to avoid nuisance opening or tripping. A 2 A slow blow should be used for AC 24 V. A 0.5 A slow blow should be used for AC 120 V. A 0.25 A slow blow should be used for AC 230 V and a 0.3 A slow blow for AC 208 V.

Accessories

Electrical accessories	Description	Type
	Thermoelectric tripping device, Duct inside temperature 165°F	BAE165 US
	Auxiliary switch 2x SPDT	S2A-F US
Mechanical accessories	Description	Type
	Anti-rotation bracket, for AF / NF	AF-P
	End stop indicator	IND-AFB
	Shaft clamp reversible, for central mounting, for damper shafts $\varnothing 12.7 / 19.0 / 25.4$ mm	K7-2
	Ball joint suitable for damper crank arm KH8	KG8
	Actuator arm, for 3/4" shafts, clamping range $\varnothing 10...22$ mm, Slot width 8.2 mm	KH-AFB
		SH8
	Wrench 8 mm and 10 mm	TOOL-06
	Mounting bracket for AF..	ZG-100
	Mounting bracket for AF / NF	ZG-101
		ZG-102
	Weather shield 330x203x152 mm [13x8x6"] (LxWxH)	ZS-100
	Weather shield 406x213x102 mm [16x8-3/8x4"] (LxWxH)	ZS-150
	Explosion proof housing 406x254x164 mm [16x10x6.435"] (LxWxH), UL and CSA, Class I, Zone 1&2, Groups B, C, D, (NEMA 7), Class III, Hazardous (classified) Locations	ZS-260
	Weather shield 438x222x140 mm [17-1/4x8-3/4x5-1/2"] (LxWxH), NEMA 4X, with mounting brackets	ZS-300
		ZG-AFA108
	Mounting kit for AF..	ZG-AFA
		ZG-DC1
		ZG-DC2

Electrical installation



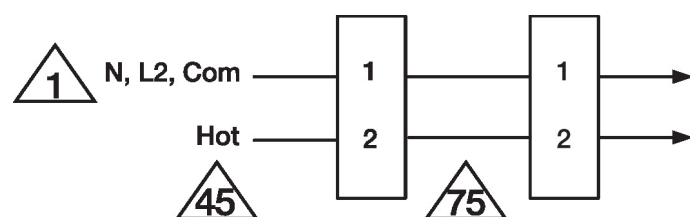
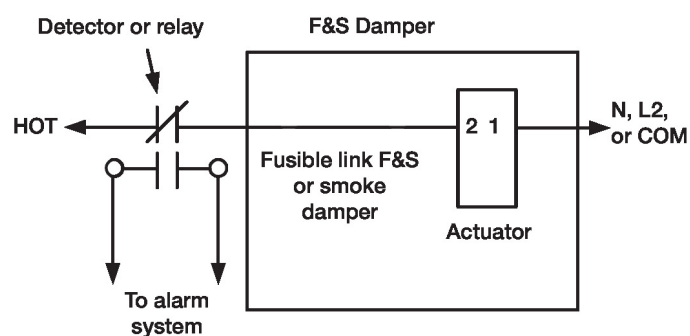
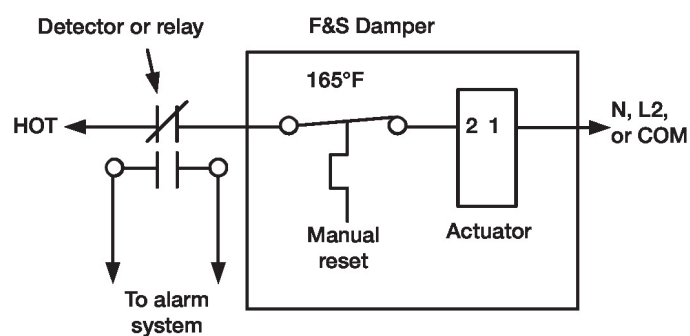
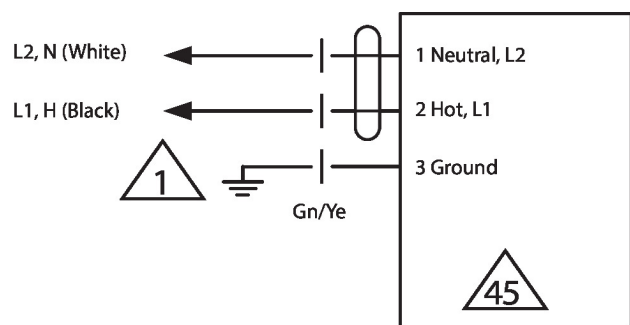
Provide overload protection and disconnect as required.



Actuators may be powered in parallel. Power consumption must be observed.



Ground present on some models.

Electrical installation
Wiring diagrams


Dimensions

