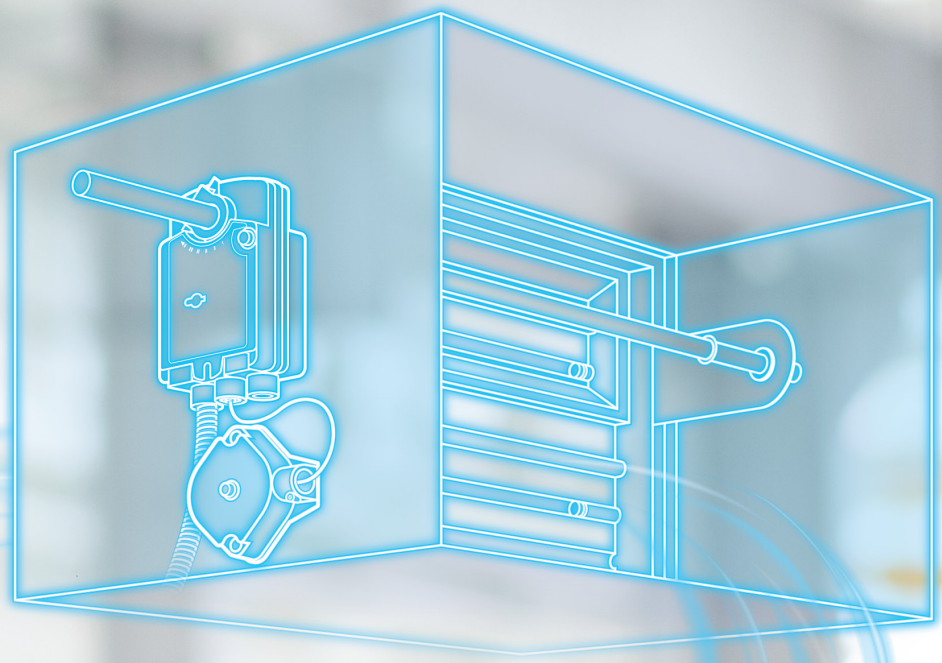
SIEMENS

Ingenuity for life



OpenAir™ Fire/Smoke Damper Actuators

usa.siemens.com/fire-smoke

The right device matters when lives matter.

OpenAir™ fire and smoke electronic damper actuators are designed to reduce risk and deliver better life safety performance.

Keep people and property protected with Siemens reliable fire and smoke damper actuators designed to meet both UL555 and UL555s safety requirements for fire and smoke applications.

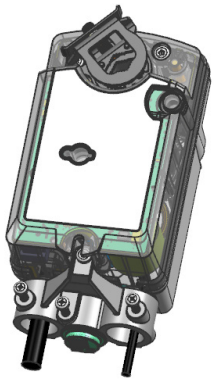


- **Most compact design for tight-fitting spaces**
- **5 Year warranty**
- **Integrated Electronic Fusible Link (EFL) with four temperature ratings: 165°F, 212°F, 250°F, 350°F**
- **Optional built-in auxiliary switches with fixed switch points at 5° and 85° rotation**
- **30-second motor drive operation at rated torque, temperature and voltage**
- **Listed with California State Fire Marshal**
- **Made in the USA**

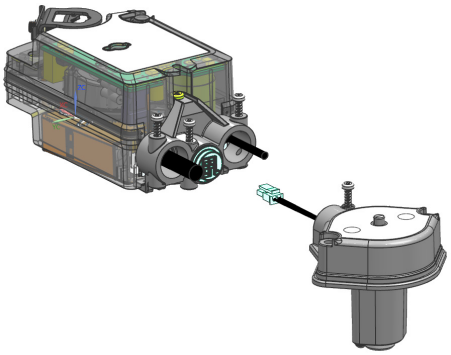
Integrated design to save time and save lives
Passive protection systems are only as good as the installation process. Siemens innovative Electronic Fusible Link uses a quick-connect design for a safe, reliable connection. Other actuator brands require using a separate fusible link that may need additional wiring, junction box, etc. to be properly configured to code. With Siemens patented electronic fusible link design cowerful, compact actuators, you achieve a more reliable installation, better efficiency and improved protection.

Specify OpenAir™ and install with confidence.

Only OpenAir fire and smoke damper actuators are integrated with a patented electronic fusible link reducing installation risk and improving life safety.







Simplified Design for Powerful Performance

- More torque
- Greater efficiency
- Highly accelerated life tested
- One device operates two directions

+

Patented Low Voltage Electronic Fusible Link

- Innovative quick-connect configuration
- Precise temperature readout
- Low voltage connection – less hardware required

=

Complexity Reduction Ingenuity

- Easy assembly
- Minimize faults
- Reduced installation labor
- Maintenance free

Enhanced performance and efficiency
Siemens has simplified the overall design of fire and smoke damper actuators while delivering more enhanced performance. Every OpenAir damper actuator is highly accelerated life tested beyond industry standards to ensure long-lasting performance. The GJD, GRD, GKD, GVD series are compact and lightweight while delivering robust torque performance ranging from 20 lb-in up to 200 lb-in.

Improved safety with game-changing configuration
Only Siemens offers fire and smoke damper actuators that integrate with a low-voltage electronic fusible link. Everything easily goes together. No custom fabrication is required for easy assembly and installation providing complexity reduction for damper manufacturers and hassle-free installation at the jobsite. The electronic fusible link's low-voltage connection design is patented for life safety in mind by reducing risk of shock and delivers a more precise temperature readout for better performance with a reset button for fast, easy testing.

Minimize installation faults
Using the only truly integrated actuator and electronic fusible link available in the industry eliminates the hassles and errors that can happen during installation. The integrated design eliminates assembly steps, improves assembly consistency and eliminates risk of faulty installation. With hundreds of life safety damper installations in a given project, making sure everything is connected right the first time and ready to reliably operate for years is imperative.

Choose the only integrated actuator and electronic fusible link available for better total value from the world leader for HVAC damper actuators.

15+ Million

Siemens actuators installed in buildings worldwide

40+ Years

Innovating control actuators

Made in USA

Designed and manufactured in Illinois

Actuators for HVAC Applications		Control Signal	Operating Voltage	Standard Model	Two auxillary switches	Dimensions, Damper Shaft Round / Square (inch)
Fire and Smoke Damper Actuators						
	**GJD Series** 20 lb-in (2 Nm) 30 s Runtime <=15 s Spring Return	**On/Off** 2-Position	24 VAC/DC	GJD121.1U	GJD126.1U	R: 1/2″
			120 VAC	GJD221.1U	GJD226.1U	
			230 VAC	GJD321.1U	GJD326.1U	
	**GRD Series** 30 lb-in (3.4 Nm) 30 s Runtime <=15 s Spring Return	**On/Off** 2-Position	24 VAC/DC	GRD121.1U	GRD126.1U	R: 1/2″
			120 VAC	GRD221.1U	GRD226.1U	
			230 VAC	GRD321.1U	GRD326.1U	
	**GKD Series** 80 lb-in (9 Nm) 30 s Runtime <= 15 s Spring Return	**On/Off** 2-Position	24 VAC/DC	GKD121.1U	GKD126.1U	R: 1/2″
			120 VAC	GKD221.1U	GKD226.1U	
			230 VAC	GKD321.1U	GKD326.1U	
	**GVD Series** 200 lb-in (23 Nm) 30 s Runtime <= 15 s Spring Return	**On/Off** 2-Position	24 VAC/DC	GVD121.1U	GVD126.1U	R: 1/2″
			120 VAC	GVD221.1U	GVD226.1U	
			230 VAC	GVD321.1U	GVD326.1U	
Fire and Smoke Damper Accessories						
	**Electronic Fusible Link (EFL)**	**165 °F Temperature Limit**		ASK791.165		
		212 °F Temperature Limit		ASK791.212		
		250 °F Temperature Limit		ASK791.250		
		350 °F Temperature Limit		ASK791.350		

Compare the difference.

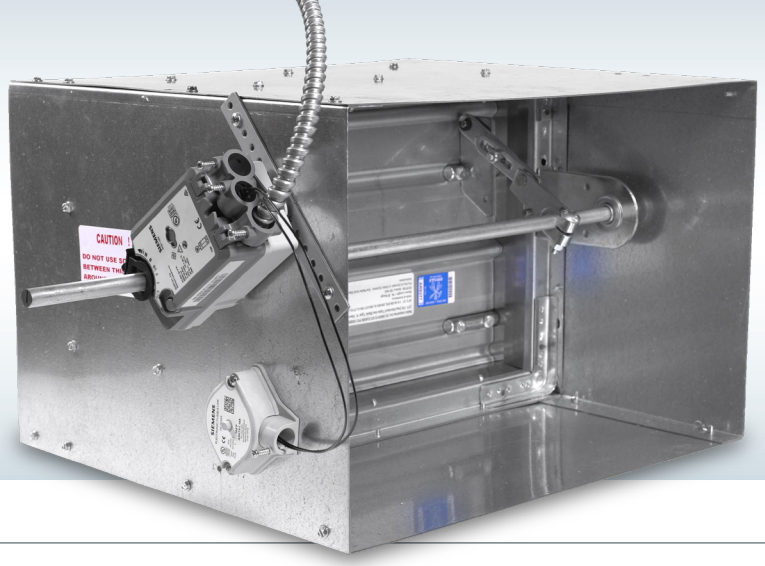
	Siemens	Belimo	Honeywell
	GJD Series	FSTF Series	
Dimensions	5.7" x 2.8" x 2.5"	6.3" x 3" x 3.3"	
Volumetric Footprint	39.6 in^3	62.2 in^3	
Weight	1.32 lbs	1.7 lbs	
Drive Torque	20 lb-in	18 lb-in	
Runtime for 90° Closing	30 s Nominal	75 s	
Runtime for 90° Closing with Spring Return	15 s Maximum	25 s	
Heat Sensing Device Options	Pre-wired for use with EFL Sensor	Not Available	
Ambient Temperature Range	0°F to 130°F	32°F to 122°F	Not Available
One Time Use Temperature Rating	250°F	250°F	
Power Consumption Running	10 VA/5W	5W	
Power Consumption Holding	5 VA/3W	4.5W	
Connection Type	3 x 3/8-in Flexible Conduit Connector	3 ft [1 m], 18 GA Appliance Cable w/ 1/2" Conduit Connector	
Built in Dual Auxiliary Switches	Available as Option	Available as Option	
Built in Conduit Connection	3 x 3/8-in Flexible Conduit Connector	Not Available	
Universal EFL Connection	Standard	Not Available	

	Siemens	Belimo	Honeywell
	GRD Series	FSLF Series	MSxxx4F Series
Dimensions	5.7" x 2.8" x 2.5"	6.3" x 3" x 3.3"	8.9" x5.1" x 3.2"
Volumetric Footprint	61.4 in^3	62.2 in^3	148.9 in^3
Weight	3.5 lbs	4.1 lbs	5.0 lbs
Drive Torque	30 lb-in	30 lb-in	30 lb-in
Runtime for 90° Closing	15 s Nominal	15 s	15 Seconds Typical
Runtime for 90° Closing with Spring Return	15 s Maximum	15 s	15 Seconds Typical
Heat Sensing Devise Options	Pre-wired for use with EFL Sensor	Not Available	Not Available
Ambient Temperature Range	0°F to 130°F	32°F to 122°F	0°F to 130°F
One Time Use Temperature Rating	350°F	350°F	350°F
Power Consumption Running	20 VA/12W	18 VA	16 VA
Power Consumption Holding	8 VA/6W	5.5 VA/4W	8 VA
Connection Type	3 x 3/8-in Flexible Conduit Connector	3 ft [1 m], 18 GA Appliance Cable w/ 1/2" Conduit Connector	32 inches (0.8m), 18 AWG
Built in Dual Auxiliary Switches	Available as Option	Available as Option	Available as Option
Built in Conduit Connection	3 x 3/8-in Flexible Conduit Connector	Not Available	Not Available
Universal EFL Connection	Standard	Not Available	Not Available

	Siemens	Belimo	Honeywell
	GKD Series	FSNF Series	MSxxx9F Series
Dimensions	11"x4"x4.2"	10.2"x3.86"x3.25"	8.9"x5.1"x3.2"
Volumetric Footprint	184.8 in^3	127.5 in^3	148.9 in^3
Weight	6 lbs	7.2 lbs	5.0 lbs
Drive Torque	80 in-lbs	70 in-lbs	80 in-lbs
Runtime for 90° Closing	30 s Nominal	15 s	15 seconds typical
Runtime for 90° Closing with Spring Return	15 s Maximum	15 s	15 seconds typical
Heat Sensing Device Options	Pre-wired for use with EFL sensor	Not Available	Not Available
Ambient Temperature Range	0°F to 130°F	32°F to 122°F	0°F to 130°F
One Time Use Temperature Rating	350°F	350°F	350°F
Power Consumption Running	N/A	27 VA	23 VA
Power Consumption Holding	N/A	10 VA	7 VA
Connection Type	3 × 3/8-in flexible conduit connector	"3 ft [1 m], 18 GA appliance cable w/ 1/2" conduit connector"	39 inches (1m), 18 AWG
Built in Dual Auxiliary Switches	Available as Option	Available as Option	Available as Option
Built in Conduit Connection	3 × 3/8-in flexible conduit connector	Not Available	Not Available
Universal EFL Connection	Standard	Not Available	Not Available

	Siemens	Belimo	Honeywell
	GVD Series	FSAF Series	MSxxx0F Series
Dimensions	11"x4"x4.2"	10.2"x3.86"x3.25"	8.6"x3.9"x2.9"
Volumetric Footprint	184.8 in^3	127.5 in^3	97.3 in^3
Weight	7 lbs	6.95 lbs	7.5 lbs
Drive Torque	200 in-lbs	180 in-lbs	175 in-lbs
Runtime for 90° Closing	30 s Nominal	25 s	15 seconds typical
Runtime for 90° Closing with Spring Return	15 s Maximum	15 s	15 seconds typical
Heat Sensing Device Options	Pre-wired for use with EFL sensor	Not Available	Not Available
Ambient Temperature Range	0°F to 130°F	32°F to 122°F	-40°F to 130°F
One Time Use Temperature Rating	350°F	350°F; 250°F on 24 volt version	350°F
Power Consumption Running	N/A	9.5 W, 11 VA	45 VA
Power Consumption Holding	N/A	2 W, 4 VA	10 VA
Connection Type	3 × 3/8-in flexible conduit connector	"3 ft [1 m], 18 GA appliance cable w/ 1/2" conduit connector"	1m Teflon wire
Built in Dual Auxiliary Switches	Available as Option	Available as Option	Available as Option
Built in Conduit Connection	3 × 3/8-in flexible conduit connector	Not Available	Two integral 3/8 in. flexible conduit connections
Universal EFL Connection	Standard	Not Available	Not Available

Siemens Fire and Smoke Damper Actuator Specifications



PART 1 – GENERAL

1. Related Requirements

A. Section 23 33 00 Air Duct Accessories

B. Section 23 33 13.16 Fire Dampers

C. Section 23 33 13.19 Smoke-Control Dampers

PART 2 – PRODUCTS

2.1 System Description

A. The contractor shall furnish and install, as required per project scope, smoke and combination fire and smoke damper actuators.

B. Acceptable Manufacturer: Siemens

1. Basis of design – Siemens

2.2 Fire and Smoke Damper Actuators

A. All smoke and combination fire and smoke dampers shall be provided with Siemens OpenAir™ Series actuators and Model ASK791 Electronic Fusible Link as a separately purchased accessory. Acceptable actuators are: GJD, GRD, GKD, GVD. Acceptable electronic fusible link accessories are: ASK791.165, ASK791.212, ASK791.250, ASK791.350.

B. Actuators shall be UL 873 or UL 60730 listed.

C. Actuators and dampers shall have UL 555 and UL 555S listing by the manufacturer for 250°F or 350°F.

D. Actuators shall be UL2043 listed for low smoke generation in environmental air spaces and air moving plenums as required by NFPA 70 Section 300.22 (C) and the International Mechanical Code Section 602. Housing shall be polymer plastic. Steel and/or aluminum housings are not acceptable.

E. Actuator shall carry a manufacturer's 5-year warranty and be manufactured under ISO 9001 quality control. For replacement of existing competitive motors, NYC OTCR or CSFM listing shall have been obtained.

F. Actuator shall have electronic or microcontroller-based motor control providing:

1. Low power hold mode at full-open position so that holding noise level shall be inaudible.

2. Overload protection so that actuator shall be incapable of overheating or "burning out" if stalled before reaching full rotation.

G. The actuators shall be direct coupled and employ a single screw clamp or multiple set screws for connecting to damper shafts.

PART 3 – EXECUTION

3.1 Installation

A. Dampers shall be installed to ensure that shaft adaptor face and anti-rotation tab are in the same plane

B. Actuator shall be capable of being mounted at multiple angles around the damper shaft.

C. Dampers shall move freely without undue stress due to twisting, racking, bowing, or other installation error.

D. Do not install in area where moisture can penetrate damper or actuator.

E. Do not install GJD Series actuator in area where actuator temperature continuously exceeds 130°F.

F. Do not install GRD Series, GKD Series, or GVD Series actuator in areas where actuator temperature continuously exceeds 140°F.

3.2 Field Quality Control

A. Test and inspections:

1. Operate dampers to verify full range of movement as applicable per project scope.

2. Operate fire, smoke and combination fire and smoke dampers as applicable per project scope.

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