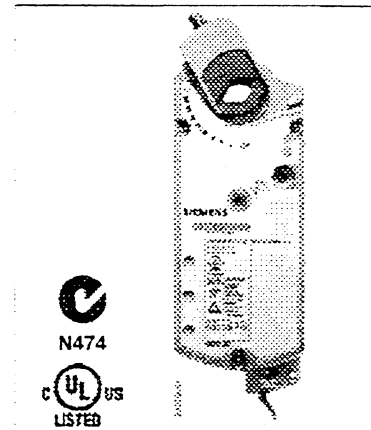


## OpenAir™ GGD Electronic Damper Actuators for UL Listed Fire/Smoke and Smoke Control Dampers 2-Position, 15-second Runtime, 15-second Spring Return Time

Product Number	Operating Voltage			Shaft Adapter		Packaging	
	24 Vac ± 20%, 50/60 Hz	115 Vac ± 15%, 50/60 Hz	230 Vac ± 10%, 50/60 Hz	Self- centering to 1 Inch	Oversized to 1.05 Inches	Standard single pack	Eight pack of Standard
GGD121.1U	•			•		•	
GGD121.1U/B	•			•			•
GGD121.3U	•				•	•	
GGD221.1U		•		•		•	
GGD221.1U/B		•		•			•
GGD221.3U		•			•	•	
GGD321.1U			•	•		•	
GGD321.1U/B			•	•			•
GGD321.3U			•		•	•	

### Description

The OpenAir direct-coupled, 2-position, spring return electronic damper actuators are UL listed for smoke control dampers or for combination fire/smoke rated dampers. Actuators are designed to operate reliably in smoke control systems requiring Underwriter's Laboratories, Inc. UL555S rating up to 350°F (177°C).



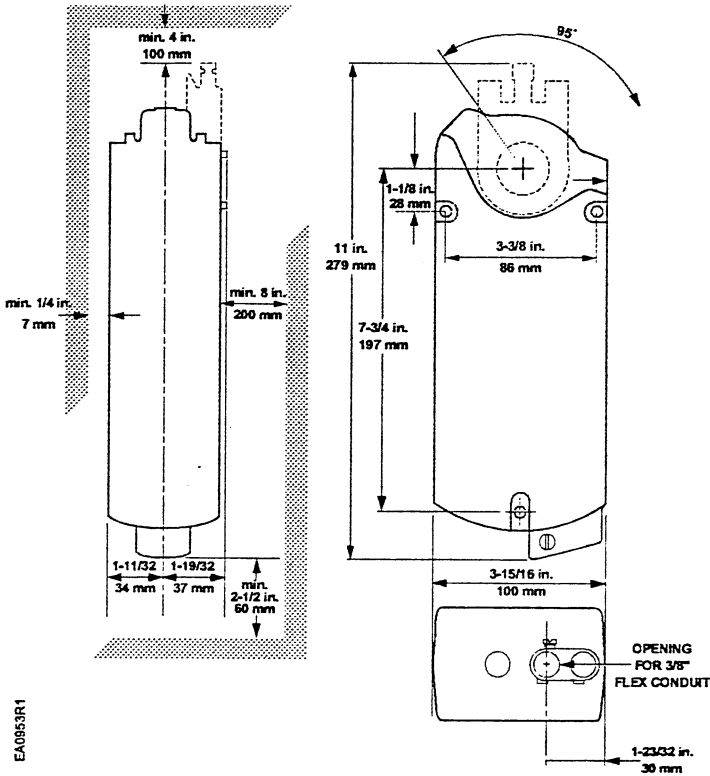
### Technical Data

Torque	Running 142 lb-in (16 Nm), spring return 108 lb-in (12 Nm), minimum stall 350 lb-in (39 Nm)
Torque reduction at elevated temperature	Less than 10%
Runtime for 90°	
operating with motor at 60 Hz	15 sec. nominal
closing (on power loss) with spring return	15 sec. maximum
Nominal angle of rotation	95° nominal
Power consumption, running	150 VA running, 10 VA holding
Life expectancy	Minimum 35,000 full stroke cycles
Damper shaft size, standard	3/8 to 1 inch (8 to 25.6 mm)
Damper shaft size, oversize	1.05 inch (26.6 mm) maximum
Damper shaft size, minimum	3/4 inch (20 mm)
Agency listings	UL873, C-UL C22.2 No. 24-93, AS/NZS 2064 1/2:1997
Ambient temperature, operating	0 to 130°F (-18 to 55°C), one time 350°F (177°C)
Ambient temperature, storage/transport	-25 to 158°F (-32 to 70°C)
Ambient humidity (non-condensing)	Maximum 95% R.H.
Teflon® cable	400°F (200°C)
Enclosure	NEMA 1
Housing material	Die cast aluminum alloy
Pre-cabled connection	AWG 18
Weight	≈7 lbs. (3.2 kg)

### Features

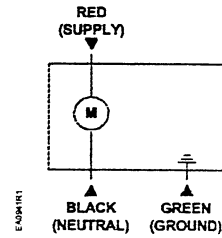
- High-temperature rated drive system
- Reversible fail-safe spring return
- All metal housing
- Precabled Teflon® insulated lead wires
- Mechanical range adjustment
- Multiple shaft couplings available; will accommodate up to 1.05-inch (26.6 mm) shafts
- Fifteen second nominal open time; 15 second maximum spring return time
- Models available for 24, 115, and 230 Vac

**Dimensions**

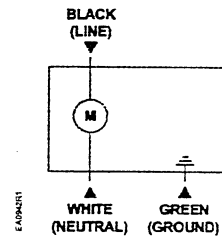


**Wiring Diagrams**

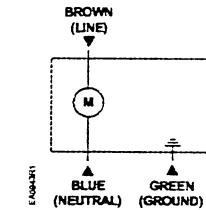
24 Vac:



115 Vac:



230 Vac:



**Maintenance**

The National Fire Protection Association (NFPA) National Fire Codes<sup>®</sup>, NFPA 92A, and UL, require weekly self test for dedicated smoke control equipment used in a smoke control system. The actuator was designed such that no special cycling is required during long-term holding when used as a fire damper. Cycling once a year is recommended as a safety precaution for the fire control systems.

**NOTE:** Wire the 230 Vac actuator with a 230 Vac line with respect to neutral and connect the ground lead for proper protection of the actuator. Any other connection such as phase-to-phase, can damage the actuator.

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Document No. 154-026  
 Printed in the U.S.A.  
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