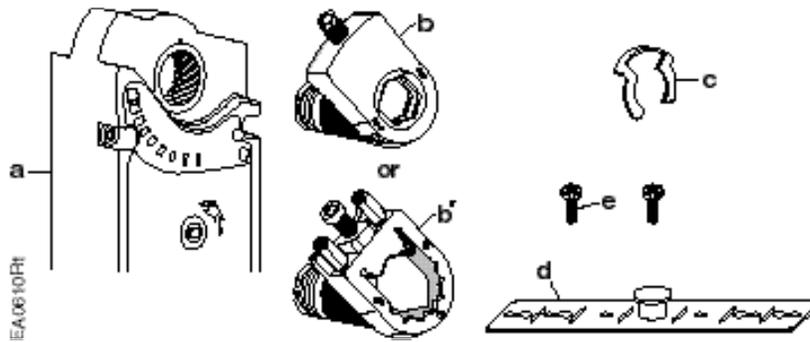


OpenAir® GGD Electronic Damper Actuator Designed for UL Listed Fire/Smoke and Smoke Control Dampers



- a. Actuator
- b. Self-centering shaft adapter
- b'. Over-size shaft adapter
- c. Shaft adapter locking clip
- d. Mounting bracket
- e. Mounting screws

Figure 1. GGD Actuator Parts.

Product Description

Step description for direct-coupled mounting of the OpenAir GGD fast acting 2-position rotary electronic damper actuator. Actuator is intended for control of approved fire and smoke leakage-rated HVAC dampers.

Product Numbers

GGD121.xx	GGD126.1U
GGD221.xx	GGD226.1U
GGD321.xx	GGD326.1U

Required Tools

- 10 mm (13/32-in.) open end wrench
- 6 mm (1/4-in.) open end wrench for over-size shaft adapter
- Drill
- 4 mm (5/32-in.) drill bit
- 3 mm hex wrench
- Phillips screwdriver
- Marker or pencil

Prerequisites



WARNING:

Do not open the actuator housing.

Warning/Caution Notations

WARNING:		Personal injury/loss of life may occur if you do not follow a procedure as specified.
CAUTION:		Equipment damage or loss of data may occur if you do not follow a procedure as specified.

Installation

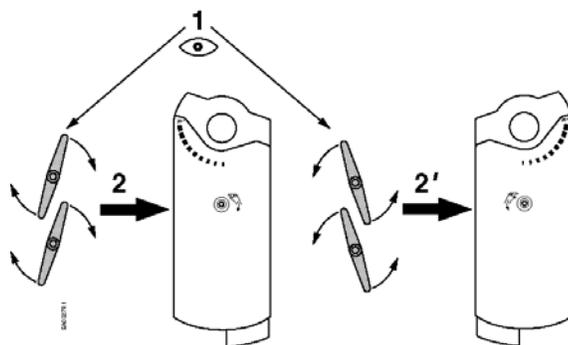


Figure 2. Actuator Mounting Orientation.

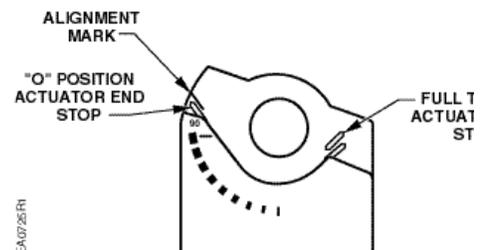


Figure 3. Actuator End Stops.

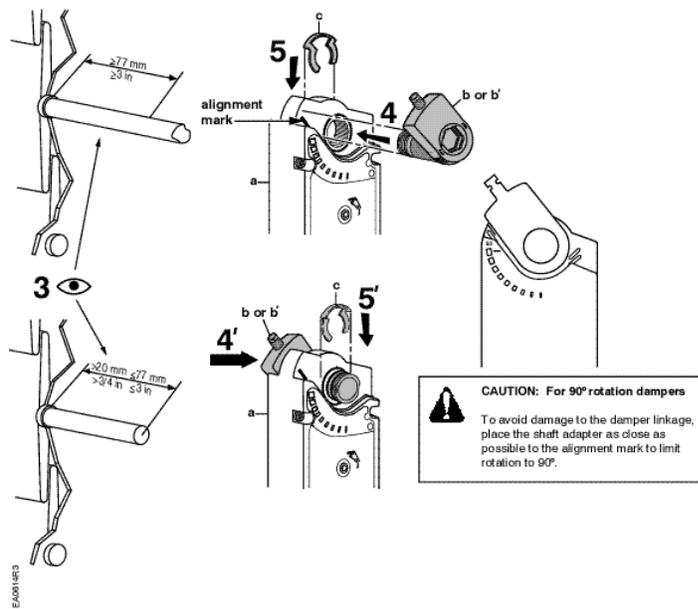


Figure 4. Shaft Length and Proper Shaft Adapter Location.

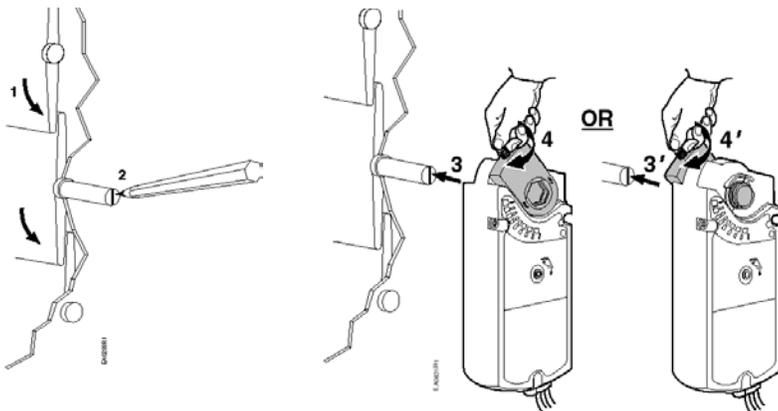


Figure 5. Finger Tighten the Actuator on the Shaft with the Damper Blades in the Desired Position.

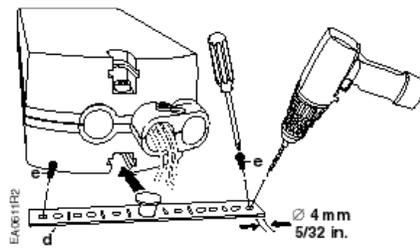
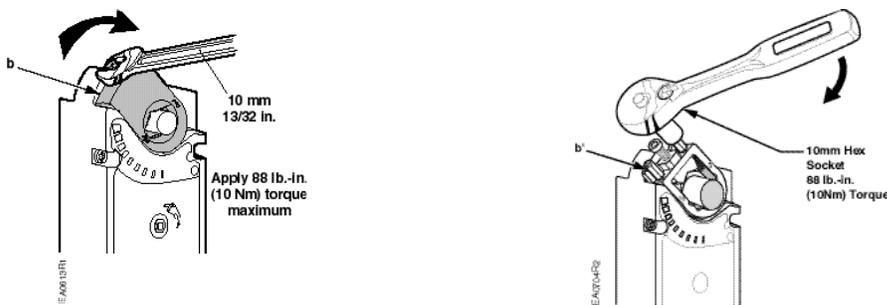


Figure 6. Fasten the Mounting Bracket.

NOTE: With an oversized shaft adapter (b'), tighten the middle screw so that the shaft is in the center of the shaft adapter opening.



NOTE: Keep the shaft in the center of the shaft adapter opening.

Figure 7. Fasten the Shaft Adapter to the Damper Shaft.

Manual Override

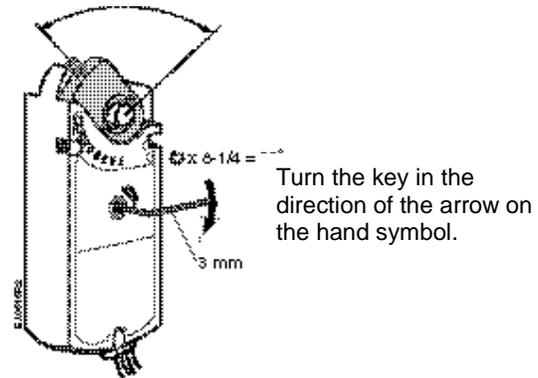


Figure 8. Manual Override.

Mechanical Range Adjustment

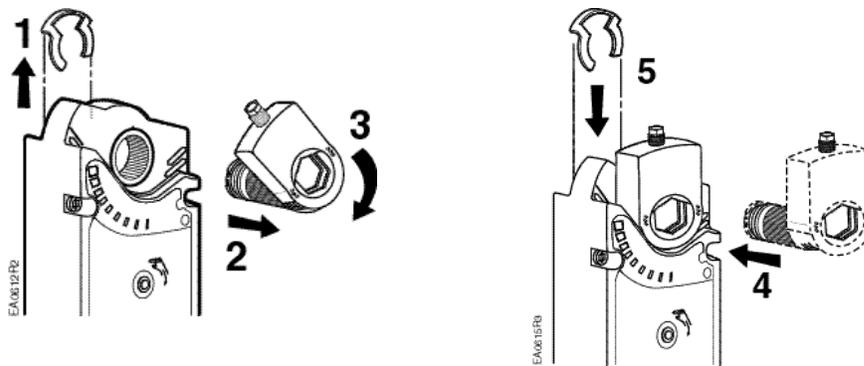
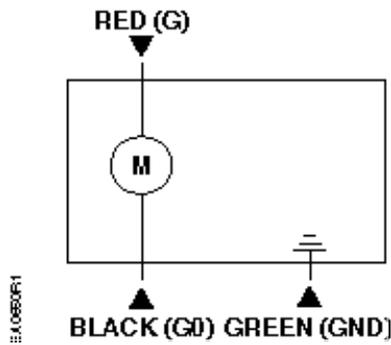


Figure 9. The Angular Rotation is Adjustable between 0° and 90° at 5 degree Intervals.

Wiring Diagrams

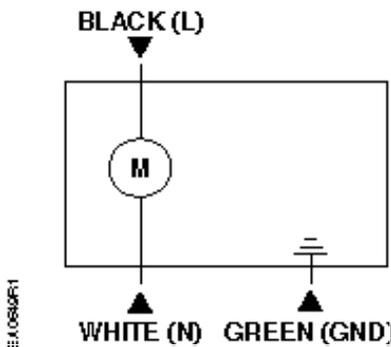
NOTE: All wiring must conform to NEC and local codes and regulations.

24 Vac



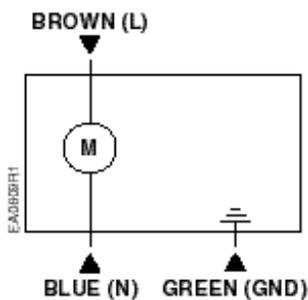
Function	Color
Supply (SP)	Red
Neutral (SN)	Black
Ground	Green

115 Vac



Function	Color
Line	Black
Neutral	White
Ground	Green

230 Vac



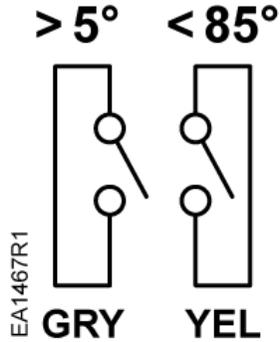
Function	Color
Line	Brown
Neutral	Blue
Ground	Green



CAUTION:

The actuator must be wired with a 230 Vac line with respect to neutral and the ground lead must be connected for proper protection of the actuator. Any other connection, such as phase to phase, can damage the actuator.

Fixed Dual Switches



Switch	Wire Color	Switch Makes	Switch Breaks
5°	Gray	< 5°	> 5°
85°	Yellow	> 85°	< 85°

NOTE:

Both sets of contacts are open when actuator is between 5° and 85°.



CAUTION:

Mixed switch operation to the switching outputs of both dual end switches (5° and 85°) is not permitted.

Either AC line voltage from the same phase must be applied to all four outputs of the fixed dual end switches, or UL-Class 2 voltage must be applied to all four outputs.

Maintenance



CAUTION:

The GGD actuator does not require any periodic cycling to function properly as an integral part of an active smoke control damper system. **Siemens Industry, Inc. strongly recommends that all life safety systems are functionally checked periodically.** Check the smoke control damper/actuator every time you functionally check your smoke detectors, emergency lights, and/or power generators for operation.

References

Technical Instructions 152-046P25
 OpenAir™ Electric Damper Actuator Designed for
 UL Listed Fire/Smoke and Smoke Control Dampers

Dimensions

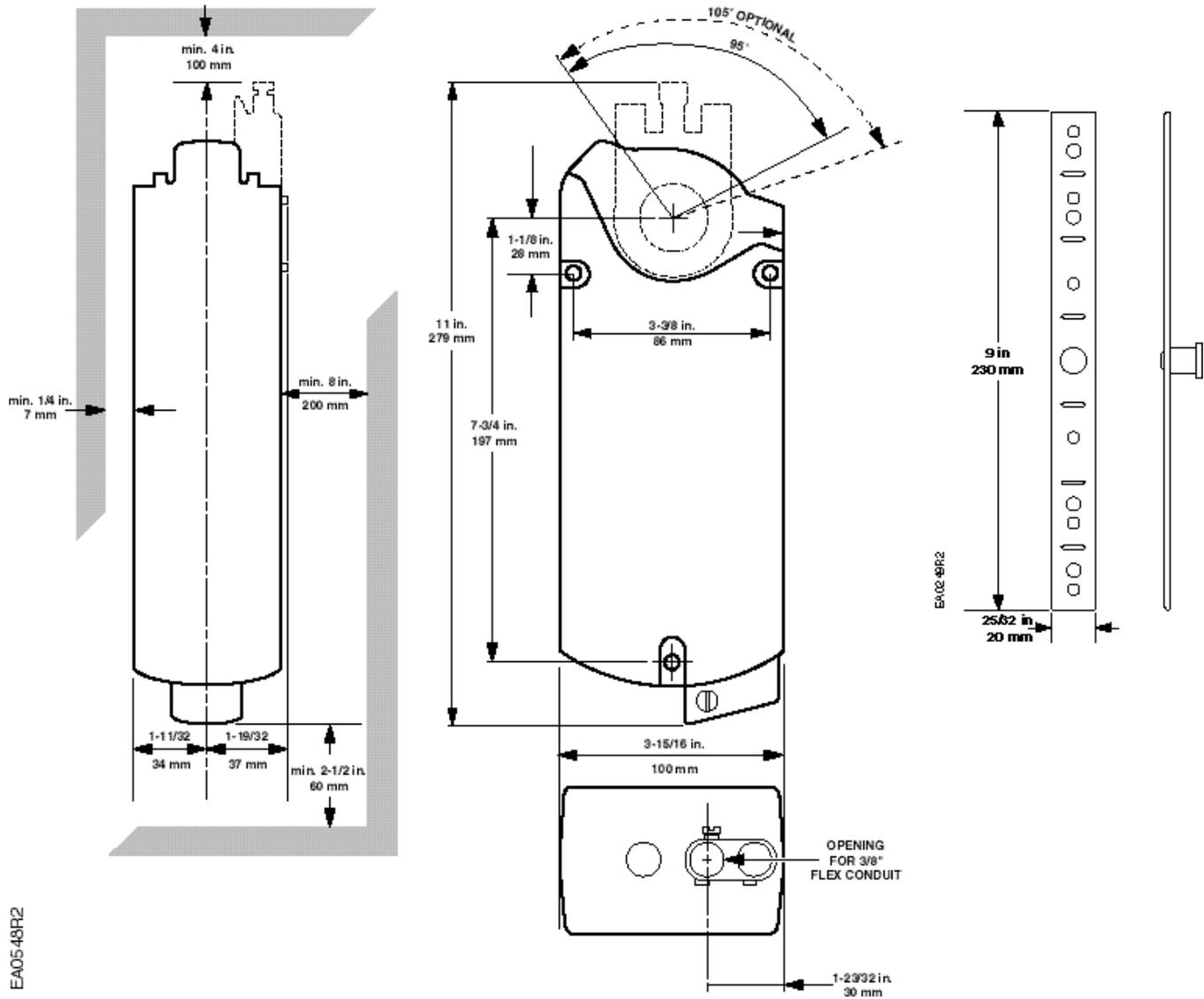


Figure 10. Dimensions of the GGD OpenAir Actuator and Mounting Bracket.

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