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

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Operating Voltage</th>
<th>Shaft Adapter</th>
<th>Aux. Switch</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24 Vac ± 20%, 50/60 Hz</td>
<td>115 Vac ± 15%, 50/60 Hz</td>
<td>230 Vac ± 10%, 50/60 Hz</td>
<td>Self-centering to 1 Inch</td>
</tr>
<tr>
<td>GGD121.1U</td>
<td>24 Vac ± 20%</td>
<td>115 Vac ± 15%</td>
<td>230 Vac ± 10%</td>
<td>●</td>
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<tr>
<td>GGD121.1U/B</td>
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<td>230 Vac ± 10%</td>
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<tr>
<td>GGD221.1U/B</td>
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<td>230 Vac ± 10%</td>
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<td>GGD326.1U</td>
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</tbody>
</table>

**Technical Data**

- **Torque**
  Running (min.) 142 lb-in (16 Nm), Spring return (min.) 108 lb-in (12 Nm), Minimum stall 350 lb-in (39 Nm)
- **Torque reduction at elevated temperature**
  Less than 10%
- **Runtime for 90° opening (at 60 Hz)**
  15 sec. nominal, 15 sec. maximum
- **Nominal angle of rotation**
  95° nominal
- **Power consumption, running**
  150 VA running, 10 VA holding (nominal)
- **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 CISPR 11:2004 (2nd Edition)
- **Ambient temperature, operating**
  0 to 130°F (-18 to 55°C), one time 350°F (177°C) for 30 minutes (per UL555s)
- **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)

**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).

**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
- Fixed Dual End Switches models:
  - 24 Vac to 250 Vac, 24 Vdc, 6A resistive
  - 2FLA/12 LRA
  - SPST
  - Fixed 5° and 85°
Dimensions

Wiring Diagrams

24 Vac:

115 Vac:

230 Vac:

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.

Maintenance

The National Fire Protection Association (NFPA) National Fire Codes®, 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.

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