

## Electronic Damper Actuator Non-Spring Return

### Easily Replaces:

- Belimo NM Series

### 132 lb.-in. Torque

24 Vac, Floating Control  
0 to 10 Vdc or 2 to 10 Vdc, Modulating Control



GEB Series Non-spring Return  
Direct-coupled Electronic Damper Actuator.

### Description

The OpenAir GEB Series Direct-coupled, Non-spring Return Electronic Damper Actuators provide modulating and floating control of building HVAC dampers.

### Features

- Integral 1/2-inch conduit connector
- Unique self-centering shaft coupling
- All metal housing
- Manual override
- DIP switches GEB16x.1x
  - Direction of rotation
  - Adaptation of rotational angle range
  - Selection of 0 to 10 or 2 to 10 Vdc control signal
- Mechanical range adjustment capability
- Easily visible position indicator
- Precabled
- UL60730, cUL (C22.2 No. 24-93) and CE listed
- Brushless motor technology
- All modulating types contain built-in feedback
- Assembled in the U.S.A.

### Options

- Dual independently adjustable auxiliary switches
- Adjustable offset/span
- Floating control models available with feedback potentiometer

### Applications

The OpenAir GEB Series Damper Actuators are ideal for Constant or Variable Air Volume installations for the control of return air, mixed air, exhaust, and face and bypass dampers that require up to 132 lb.-in. of torque.

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Damper Actuators



# GEB Series Specifications

**Power Supply** .....24 Vac

**Operating Voltage** ..... 24 Vac ±20%

**Frequency** .....50/60 Hz

**Runtime for 90°** ..... 125 seconds (60 Hz)  
150 seconds (50 Hz)

**Power Consumption GEB16x.1x**

Running .....5 VA/4W

Holding ..... 1 VA

**Power Consumption GEB13 x.1x**

Running .....3 VA/3W

Holding ..... 1 VA

**Equipment Rating (24 Vac)** .....Class 2 per UL/CSA

**Control Signal**

Input Signal (wires 8-2) .....GEB16x.xx

Voltage Input .....0 to 10 Vdc or 2 to 10 Vdc (max. 35 Vdc)

Input Resistance..... >100K Ohms

**Feedback Signal** ..... Position output signal (wires 9-2)GEB16x.xx

Voltage Output..... 0 to 10 Vdc

Max. Output Current..... ±1 mA

**Control Signal Adjustment**

Offset (Start Point)..... 0 to 5 Vdc

Factory Setting ..... 0 V

Span ..... 2 to 30 Vdc

Factory Setting ..... 30 V

**Dual Auxiliary Switch**

Contact Rating

AC Rating .....24 to 250 Vac  
AC 6A Resistive  
AC 2A General Purpose

DC Rating ..... 12 to 30 Vdc  
DC 2A

Plenum Cable.....4A resistive, 2A, General Purpose

Voltage

Standard Cable.....24 to 250 Vac

Plenum Cable .....24 Vac

Switch Range

Switch A.....0 to 90° with 5° intervals

Recommended Range..... 0 to 45°

Switch B..... 0 to 90°

Recommended Range..... 45 to 90°

Switching Hysteresis ..... 2°

**Position Feedback**

GEB132.1U ..... 0 to 1000 Ohm <10 mA

**Torque**

Running Torque..... 132 lb.-in. (16 Nm)

Spring Return Torque ..... 132 lb.-in. (16 Nm)

Max. Torque.....>265 lb.-in. (30 Nm)

**Nominal Angle of Rotation** ..... 90°, 95° max.

**Shaft Dimensions** ..... 1/4 to 3/4-in. (6 to 20.5 mm) Dia. ●  
1/4 to 1/2-in. (6 to 13 mm) Sq. ■

**Min. Shaft Length** ..... 3/4-in. (20 mm)

**Temperature**

Operating.....-25 to +130°F (-32 to +55°C)

Storage.....-40 to +158°F (-40 to +70°C)

**Humidity** .....95% RH, non-condensing

**Pre-cabled Connection** ..... 18 AWG, 3 ft. (0.9 m) long

**Housing**

Enclosure ..... NEMA 1

Material..... Die-cast Aluminum alloy

Gear Lubrication ..... Silicone free

**Agency Certifications** ..... UL60730, (Replaces UL873)  
cUL C22.2 No. 24-93  
CE

**Dimensions** ..... 8.38" H x 3.25" W x 2.67" D  
(212 mm H x 83 mm W x 68 mm D)

**Shipping Weight** ..... 2.2 lbs. (1.0 kg)

Refer to page B-9 for Dimensions.

## GEB Series Product Ordering

Input Signal	Cabling	Part No.			
		Standard	Dual Aux. Switches & Offset/Span Only	Position Feedback Only	Dual Aux. Switches Only
Modulating, 0 to 10 Vdc	Plenum Cable	GEB161.1P	—	—	—
	Standard	GEB161.1U	GEB164.1U	—	—
Floating, 24 Vac	Plenum Cable	GEB131.1P	—	—	—
	Standard	GEB131.1U	—	GEB132.1U	GEB136.1U

Accessories & Service Kits

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