

# OpenAir™ GMA Series

## Electronic Damper Actuator Spring Return

### Easily Replaces:

- Belimo LN/NF Series



### 62 lb.-in. Torque

- 24 Vac/Vdc, 2-Position Control
- 120 Vac, 2-Position Control
- 24 Vac/dc, Floating Control
- 0 to 10 Vdc, Modulating Control
- 2 to 10 Vdc/10 to 2 Vdc, Modulating Control



GMA Series Spring Return  
Direct-coupled Electronic Damper Actuator.

### Description

The OpenAir GMA Series Direct-coupled, Spring Return Electronic Damper Actuators provide modulating, two-position and floating control of building HVAC dampers.

### Features

- 24 Vac/dc compatible
- Integral 1/2-inch conduit connector
- Small actuator footprint with 62 lb.-in. of torque
- Bi-directional fail-safe spring return
- Unique self-centering shaft coupling
- Floating control models available with feedback potentiometer
- Manual override
- Mechanical range adjustment capability
- Easily visible position indicator
- Brushless DC motor technology
- Precabled
- UL60730, cUL (C22.2 No. 24-93), and CE listed
- All modulating types contain built-in feedback
- Assembled in the U.S.A

### Options

- Dual independently adjustable auxiliary switch
- Adjustable offset and span
- Signal inversion

### Applications

The OpenAir GMA Series Damper Actuators are ideal for rooftop unit economizer dampers and constant or variable air volume installations for the control of return air, mixed air, exhaust, and face and bypass dampers that require up to 62 lb.-in. of torque.

The actuators are designed for applications where the damper is required to return to a fail-safe position when there is a power failure.

Models are available with either an appliance cable for wiring in conduit or a plenum-rated cable.

B-11

Damper Actuators

SIEMENS



\* Intelligent VAV actuators offer a 2-year warranty.

[usa.siemens.com/hvac](http://usa.siemens.com/hvac)

## Specifications

### Operating Voltage

GMA12x, GMA13x, GMA16x, GMA15x ..... 24 Vac ±20%; 24 Vdc ±15%  
 GMA22x ..... 120 Vac ±10%

Frequency ..... 50/60 Hz

### Power Consumption

..... 24 Vac/dc  
 Running ..... 5 VA (3.5 W)  
 Holding ..... 4 VA (3 W)

Equipment Rating ..... Class 2, in accordance with UL/CSA

### Control Signal

Input Signal (wires 8-2) ..... GMA16x  
 Voltage Input  
 GMA16x ..... 0 to 10 Vdc (max. 35 Vdc)  
 GMA15x ..... 2 to 10 Vdc (max. 35 Vdc)  
 Input Resistance ..... >100K Ohms

### 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 6 A resistive  
 AC 2A General Purpose  
 DC Rating ..... 12 to 30 Vdc  
 DC 2 A

Position Feedback ..... 0 to 1000 Ohm <10 mA

Feedback Signal ..... Position output signal (wires 9-2) GMA16x.xx/  
 GMA15x.xx

### Voltage Output

GMA16x ..... 0 to 10 Vdc  
 GMA15x ..... 2 to 10 Vdc  
 Max. Output Current (both) ..... +1 mA, -0.5 mA

Running Torque ..... 62 lb.-in. (7 Nm)  
 Spring Return Torque ..... 62 lb.-in. (7 Nm)  
 Max. Torque ..... 186 lb.-in. (21 Nm)

Runtime for 90° operating with motor ..... 90 sec.  
 Closing on power loss ..... 15 sec. typical  
 (60 sec. Max. at -25°F)

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) min. length

### Temperature

Operating ..... -25°F to 130°F (-32°C to 55°C)  
 Storage ..... -25°F to 158°F (-32°C to 70°C)

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

Agency Approvals ..... UL listed UL60730 (Replacing UL873)  
 C-UL certified to Canadian Standard  
 C22.2 No. 24-93  
 CE

### Housing

Enclosure ..... NEMA 1  
 Material ..... Die-cast Aluminum Alloy  
 Gear Lubrication ..... Silicone free

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

Life Cycle ..... Designed for over 60,000 full strokes  
 at rated torque and temperature

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 ..... 2.86 lbs. (1.3 kg)

B-12

Damper Actuators

## Product Ordering

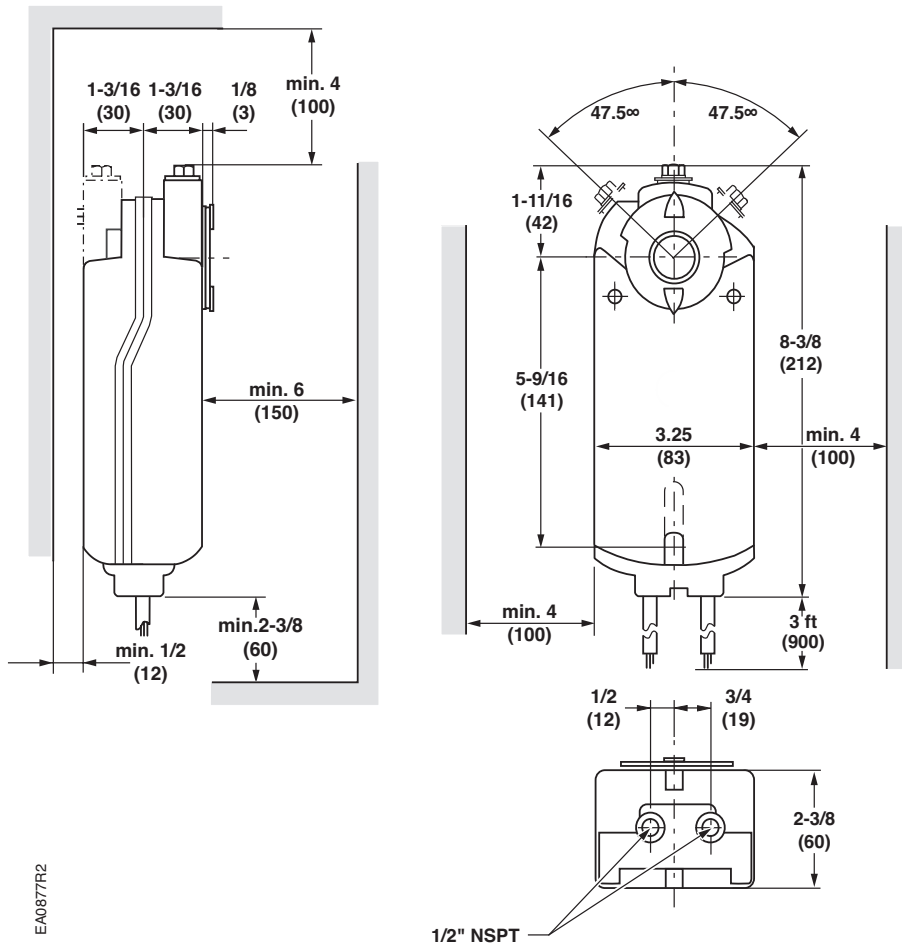
| Input Signal   | Cabling           | Part No.           |                        |   |                         |                        |
|--|-------------------|--------------------|------------------------|---|-------------------------|------------------------|
|  |                   | Standard           | Span/Offset Adjustable | Dual Aux. Switches & Span/Offset Adjustable | Dual Aux. Switches Only | Position Feedback Only |
| Modulating, 0 to 10 Vdc, 24 Vac/dc                               | Plenum Cable      | <b>GMA161.1P</b>   | <b>GMA163.1P</b>       | —   | <b>GMA166.1P</b>        | —                      |
|  | Plenum Cable/Bulk | <b>GMA161.1P/B</b> | —                      | —   | —                       | —                      |
|  | Standard          | <b>GMA161.1U</b>   | <b>GMA163.1U</b>       | <b>GMA164.1U</b>                            | <b>GMA166.1U</b>        | —                      |
| Modulating, 24 Vac/dc 2 to 10 Vdc/10 to 2 Vdc (Signal inversion) | Plenum Cable      | <b>GMA151.1P</b>   | —                      | —   | <b>GMA156.1P</b>        | —                      |
|  | Standard          | <b>GMA151.1U</b>   | —                      | —   | <b>GMA156.1U</b>        | —                      |
| 2-position, 24 Vac/Vdc   | Plenum Cable      | <b>GMA121.1P</b>   | —                      | —   | <b>GMA126.1P</b>        | —                      |
|  | Plenum Cable/Bulk | <b>GMA121.1P/B</b> | —                      | —   | —                       | —                      |
|  | Standard          | <b>GMA121.1U</b>   | —                      | —   | <b>GMA126.1U</b>        | —                      |
| 2-position, 120 Vac  | Standard/Bulk     | <b>GMA121.1U/B</b> | —                      | —   | —                       | —                      |
|  | Standard          | <b>GMA221.1U</b>   | —                      | —   | <b>GMA226.1U</b>        | —                      |
| Floating, 24 Vac/Vdc   | Standard/Bulk     | <b>GMA221.1U/B</b> | —                      | —   | —                       | —                      |
|  | Plenum Cable      | <b>GMA131.1P</b>   | —                      | —   | —                       | —                      |
|  | Standard          | <b>GMA131.1U</b>   | —                      | —   | <b>GMA136.1U</b>        | <b>GMA132.1U</b>       |

### Ordering Notes:

Bulk packages contain 10 actuators.

# Dimensions

## GMA/GEB Series OpenAir Damper Actuator



Dimensions shown in inches (mm).

B-13

Damper Actuators