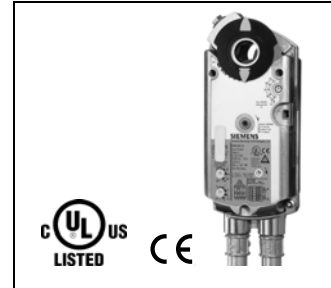


## OpenAir™ GMA Series, Spring Return, 24 Vac/dc and 120 Vac, 62 lb-in, Direct-Coupled Electronic Damper Actuators

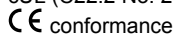
| Product Number | Operating Voltage |             | Control      |                        |                        |          | Cables     |          | Built-In Control Options |                   |                         |                                       |  |                           |
|----------------|-------------------|-------------|--------------|------------------------|------------------------|----------|------------|----------|--------------------------|-------------------|-------------------------|---------------------------------------|--|---------------------------|
|                | 24 Vac ±20%       | 24 Vdc ±15% | 120 Vac ±10% | Modulating 0 to 10 Vdc | Modulating 2 to 10 Vdc | Floating | 2-position | Standard | Plenum                   | Position Feedback | Dual Auxiliary Switches | Offset 0 to 5 Vdc<br>Span 2 to 30 Vdc | Input Signal Inversion<br>(Direct or Inverse Acting) | Feedback Signal Inversion |
| GMA121.1U      | •                 |             |              |                        |                        |          | •          | •        |                          |                   |                         |                                       |  |                           |
| GMA121.1P/B    | •                 |             |              |                        |                        |          | •          | •        |                          |                   |                         |                                       |  |                           |
| GMA121.1P      | •                 |             |              |                        |                        |          | •          | •        |                          |                   |                         |                                       |  |                           |
| GMA126.1U      | •                 |             |              |                        |                        |          | •          | •        |                          |                   | •                       |                                       |  |                           |
| GMA126.1P      | •                 |             |              |                        |                        |          | •          | •        |                          |                   | •                       |                                       |  |                           |
| GMA221.1U      |                   | •           |              |                        |                        |          | •          | •        |                          |                   | •                       |                                       |  |                           |
| GMA226.1U      |                   | •           |              |                        |                        |          | •          | •        |                          |                   | •                       |                                       |  |                           |
| GMA131.1U      | •                 |             |              |                        |                        | •        |            | •        |                          |                   |                         |                                       |  |                           |
| GMA131.1P      | •                 |             |              |                        |                        | •        |            | •        |                          |                   |                         |                                       |  |                           |
| GMA132.1U      | •                 |             |              |                        |                        | •        |            | •        |                          | •                 |                         |                                       |  |                           |
| GMA136.1U      | •                 |             |              |                        |                        | •        |            | •        |                          |                   | •                       |                                       |  |                           |
| GMA151.1U      | •                 |             |              | •                      |                        |          |            | •        |                          | •                 |                         | •                                     | •  |                           |
| GMA151.1P      | •                 |             |              | •                      |                        |          |            | •        |                          | •                 |                         | •                                     | •  |                           |
| GMA156.1U      | •                 |             |              | •                      |                        |          |            | •        |                          | •                 | •                       | •                                     | •  |                           |
| GMA156.1P      | •                 |             |              | •                      |                        |          |            | •        |                          | •                 | •                       | •                                     | •  |                           |
| GMA161.1U      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 |                         |                                       |  |                           |
| GMA161.1P      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 |                         |                                       |  |                           |
| GMA163.1U      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 | •                       |                                       |  |                           |
| GMA163.1P      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 | •                       |                                       |  |                           |
| GMA164.1U      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 | •                       | •                                     |  |                           |
| GMA166.1U      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 | •                       |                                       |  |                           |
| GMA166.1P      | •                 |             | •            |                        |                        |          |            | •        |                          | •                 | •                       |                                       |  |                           |

### Description

The OpenAir direct-coupled, spring return electronic damper actuators provide modulating, two-position and three-position control of building HVAC dampers.



### Features

- Brushless motor technology
- Bi-directional fail-safe spring return
- Unique self-centering shaft coupling
- Models available with dual, independently adjustable auxiliary switches
- Floating control models available with feedback potentiometer
- All modulating control types include built-in feedback capability
- All metal housing
- Manual override
- Mechanical range adjustment capability
- Easily visible position indicator
- Precabled
- UL60730 (to replace UL873) and cUL (C22.2 No. 24-93) listed  conformance
- Small actuator footprint with 62 lb-in of torque
- 24 Vac/dc compatible

### Technical Data

|                              |  |
|------------------------------|--|
| Runtime for 90°:             | 90 sec. operating  |
| Spring Return:               | 15 sec. typical (<60 seconds max. at -25°F (-32°C))  |
| Frequency:                   | 50/60 Hz   |
| Power consumption: 24 Vac/dc |  |
| Running:                     | 5 VA/3.5W  |
| Holding:                     | 4 VA/3W  |
| Power Consumption: 120 Vac   |  |
| Running and holding:         | ≤7 VA/5W   |
| Equipment rating (24V):      | Class 2 per UL/CSA   |
| Angle of rotation:           | 90° nominal, 95° max.  |
| Shaft dimensions:            | 1/4 to 3/4-in. (6.4 to 20.5 mm) dia.,<br>1/4 to 1/2-in. (6.4 to 13 mm) sq.,<br>1-in. (25.4 mm) min. length |
| Operating temperature:       | -25°F to 130°F (-32°C to 55°C)   |
| Storage temperature:         | -40°F to 158°F (-40°C to 70°C)   |
| Ambient humidity:            | 95% rh (non-condensing)  |

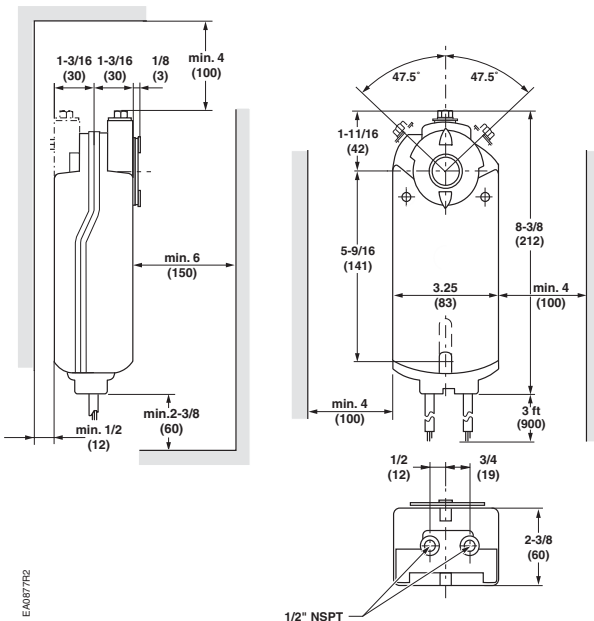
**Technical Data, continued**

|                       |  |
|-----------------------|--|
| Enclosure:            | NEMA 1   |
| Precabled connection: | 18 AWG, 3 ft (0.9 m) long  |
| Agency listings:      | UL60730 (to replace UL873)<br>C-UL C22.2 No. 24-93               |
| Material:             | Die cast aluminum alloy  |
| Gear lubrication:     | Silicone free  |
| Dimensions:           | 8-3/8" H × 3-1/4" W × 2-2/3" D<br>(212 mm H x 83 mm W x 68 mm D) |
| Weight:               | 2.9 lb (1.3 kg)  |
| Country of Origin     | USA  |

**Typical Specifications**

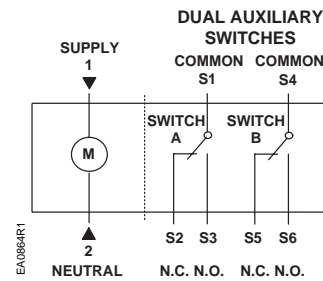
Spring-return damper actuators shall be the direct-coupled type that requires no connecting linkages. These spring return actuators shall have a self-centering damper shaft coupling that assures concentric alignment of the actuator's output coupling with the damper shaft for <60 lb-in torque and be capable of direct mounting to a shaft up to a 3/4-inch in diameter. Actuators shall provide stall protection throughout the full range of rotation. All spring return actuators shall be capable of both clockwise and counterclockwise spring return fail-safe operation using a continuously engaged mechanical return spring that returns the actuator to a fail-safe position in <15 seconds in response to a loss of power. All actuators shall provide a means of manually positioning the output coupling in the absence of power. Dual, independently adjustable auxiliary switches are available for these actuators. All actuators must be precabled and provide an easily readable high contrast yellow on black position indicator. All actuators shall be CE conforming; UL60730 (to replace UL873) and CSA22.2 listed and manufactured under ISO 9002 and ISO 14000 procedures. Actuators shall be as manufactured by Siemens Industry, Inc.

**Dimensions in Inches (Millimeters)**

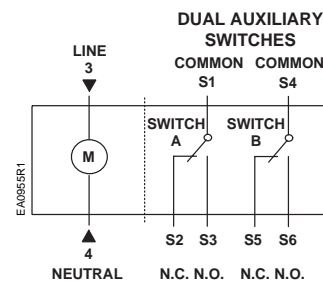


**Wiring Diagrams**

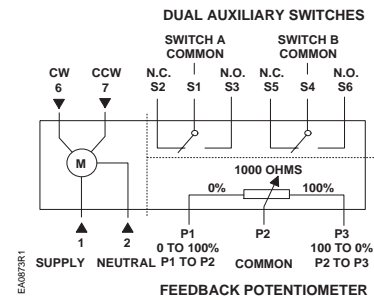
**GMA12x, 2-Position, 24 Vac/dc:**



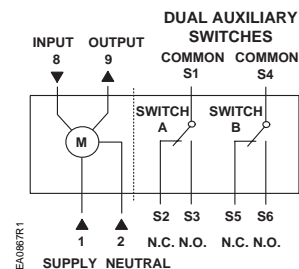
**GMA22x, 2-Position, 120 Vac:**



**GMA13x, Floating, 24 Vac/dc:**



**GMA16x, GMA15x; Modulating; 24 Vac/dc:**



Information in this publication is based on current specifications. The company reserves the right to make changes in specifications and models as design improvements are introduced. OpenAir is a registered trademark of Siemens Schweiz AG. Product or company names mentioned herein may be the trademarks of their respective owners. © 2011 Siemens Industry, Inc.