

GMA Series

Spring Return Electric Damper Actuator

Easily Replaces:

- Belimo LN/NF Series



Indoor
Environmental
Quality

62 lb.-in.

- 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 Electric 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

Options

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

Applications

The OpenAir GMA 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 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.

E-7

Damper Actuators

GMA Series Specifications

Operating Voltage

GMA12x, GMA13x, GMA16x, GMA15x 24 Vac \pm 20%; 24 Vdc \pm 15%
 GMA22x 120 Vac \pm 10%

Frequency 50/60 Hz

Power Consumption 24 Vac/dc
 Running 5 VA/3.5W
 Holding 4 VA/3W

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 to +130°F (-32 to +55°C)
 Storage -25 to +158°F (-32 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)

GMA Series 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	GMA161.1P	GMA163.1P	—	GMA166.1P	—
	Standard	GMA161.1U	GMA163.1U	GMA164.1U	GMA166.1U	—
Modulating, 24 Vac/dc 2 to 10 Vdc/10 to 2 Vdc (Signal inversion)	Plenum Cable	GMA151.1P	—	—	GMA156.1P	—
	Standard	GMA151.1U	—	—	GMA156.1U	—
2-position, 24 Vac/Vdc	Plenum Cable	GMA121.1P	—	—	GMA126.1P	—
	Plenum Cable/Bulk	GMA121.1P/B	—	—	—	—
	Standard	GMA121.1U	—	—	GMA126.1U	—
	Standard/Bulk	GMA121.1U/B	—	—	—	—
2-position, 120 Vac	Standard	GMA221.1U	—	—	GMA226.1U	—
	Standard/Bulk	GMA221.1U/B	—	—	—	—
Floating, 24 Vac/Vdc	Plenum Cable	GMA131.1P	—	—	—	—
	Standard	GMA131.1U	—	—	GMA136.1U	GMA132.1U

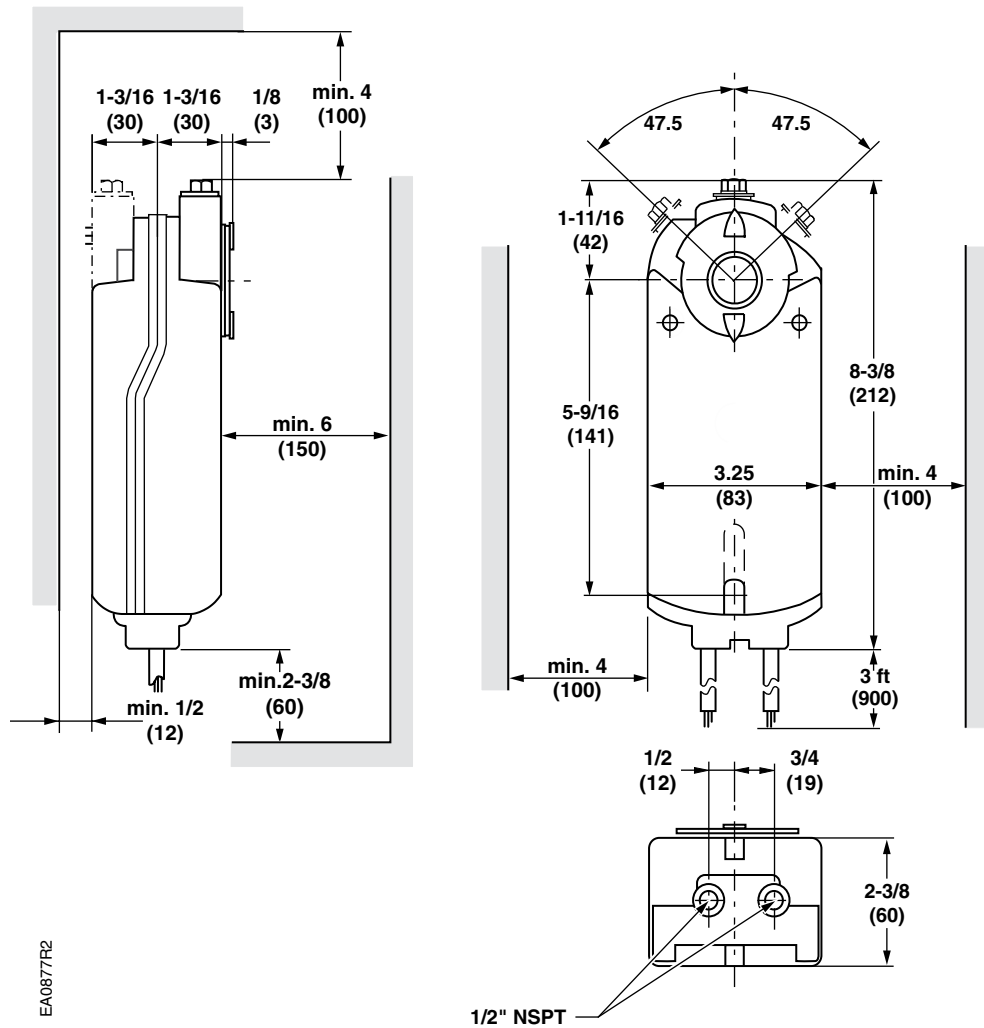
Ordering Note Bulk packages contain 10 actuators.



Part No. in black box Ships same day when requested through Rapid Response™ shipping. See inside back cover for details.



GMA/GEB Series OpenAir Damper Actuator



EA0877R2

Dimensions shown in inches (mm).