# **SIEMENS**

**Submittal Sheet** 

Document No. 154-002P25 January 25, 2011

# OpenAir™ GEB Series, Non-spring Return, 24 Vac, 132 lb-in, Direct-Coupled Electronic Damper Actuators

Product Number	Operating Voltage	Control		Cable		Built-in Control Options			
	24 Vac ±20%	Modulating (0 to 10 Vdc)	Floating	Plenum	Standard	Position Feedback	Dual Auxiliary Switches	Offset and Span	Input Signal Selectable 0–10 Vdc or 2-10 Vdc
GEB131.1U	•	_	•	_	•	_	_	_	_
GEB131.1P	•	_	•	•	_	_	_	_	_
GEB132.1U	•	_	•	_	•	•	_	_	_
GEB136.1U	•	_	•	_	•	_	•	_	_
GEB161.1U	•	•	_	_	•	•	_	_	•
GEB161.1P	•	•	_	•	_	•	_	_	•
GEB164.1U	•	•	_	_	•	•	•	•	_

#### **Technical Data**

Torque: 132 lb-in (15 Nm)

Frequency: 50/60 Hz

Runtime for 90°: 125 seconds (60 Hz)

150 seconds (50 Hz)

Power consumption Running Holding
GEB161x 5 VA/4W 1 VA/1W

GEB131x 3 VA/3W

Equipment rating (24 Vac): Class 2 per UL/CSA Angle of rotation: 90° nominal. 95° max.

Shaft dimensions: 1/4 to 3/4-in. (6 to 20.5 mm) diameter

1/4 to 1/2-in. (6.4 to 13 mm) square

3/4-in. (20 mm) min. length

Operating temperature: -25 to 130°F (-32 to 55°C)
Storage temperature: -40 to 158°F (-40 to 70°C)
Ambient humidity: 95% rh (non-condensing)
Pre-cabled connection: 18 AWG, 3 ft (0.9 m) long

Enclosure: NEMA 1

Material: Die cast aluminum alloy Agency listings: UL60730 (to replace UL873)

cUL C22.2 No. 24-93

C € Conformity:

Electromagnetic

compatibility (EMC) 2004/108/EC
Emissions Standards EN61000-6-3
Immunity Standards EN61000-6-1
Gear Lubrication: Silicone-free

Dimensions: Inches (mm) 8-3/8 H × 3-1/4 W × 2-2/3 D

(212 H × 83 W × 68 D)

Weight: 2.2 lb (1 kg)
Country of Origin USA

### **Description**

The OpenAir non-spring return, direct-coupled, electronic damper actuator provides modulating and floating control of building HVAC dampers.



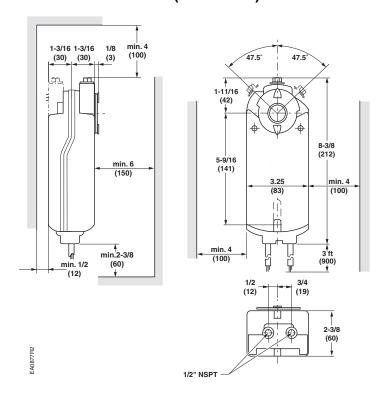
#### **Features**

- · Brushless motor technology
- Unique self-centering shaft coupling
- Models available with dual independently adjustable auxiliary switches
- Floating control models available with feedback potentiometer
- All modulating control models include built-in feedback capability
- · All metal housing
- Manual override
- Mechanical range adjustment capability
- · Easily visible position indicator
- Pre-cabled
- UL60730 (to replace UL873) and cUL (C22.2 No. 24-93) listed, C€ certification
- Small actuator footprint with 132 lb-in (16 Nm) of torque

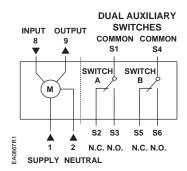
## **Typical Specifications**

All non-spring return damper actuators shall be directcoupled and require no connecting linkages. The non-spring return actuators have a self-centering damper shaft coupling that assures concentric alignment of the actuator's output coupling with the damper shaft. It is capable of direct mounting to a shaft up to 3/4-inch diameter. Actuators shall provide stall protection throughout the full range of rotation. These non-spring return actuators are capable of both clockwise and counterclockwise operation. Actuators shall hold position in the event of a power failure. The actuator returns to the 0 position when so commanded or when the control signal of the modulating actuator is zero. Actuator shall provide a means of manually positioning the output coupling in the absence of power. Dual, independent, adjustable auxiliary switches are available. The actuators are pre cabled and provide an easy, readable high contrast yellow on black position indicator. Actuators are UL60730 (to replace UL873) and CSA22.2 listed, CE certified and manufactured under ISO 9002 and ISO 14000 procedures. Actuators shall be as manufactured by Siemens Industry, Inc.

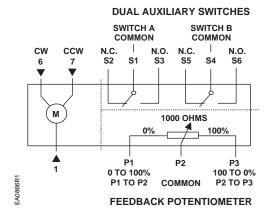
## **Dimensions in Inches (Millimeters)**



# Wiring Diagrams Modulating (0 to 10 Vdc), 24Vac



#### Floating, 24 Vac:



Information in this publication is based on current specifications. The company reserves the right to make changes 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.