

## OpenAir™ GDE Series, Non-spring Return, 24 Vac, 44 lb-in, Direct Coupled, Electronic Damper Actuator

Product Number	Operating Voltage	Control		Pre-Cabled			No Cables		Built-in Control Options			Bulk Pack		
	24 Vac +20%, -15%	0 to 10 Vdc	Floating Control	Standard	Plenum, 18 AWG, 3 ft (0.9m)	Plenum, 18 AWG, 6 ft (1.8 m)	Terminal Strip	Post Header	Feedback	Potentiometer	Dual Auxiliary Switches	Slope and Offset	24 pieces	12 pieces
GDE131.1U	●		●	●										
GDE131.1U/B	●		●	●									●	
GDE131.1N	●		●					●						
GDE131.1N/B	●		●					●					●	
GDE131.1P	●		●		●									
GDE131.1P/B	●		●		●								●	
GDE131.1Q	●		●			●								
GDE131.1Q/B	●		●			●								●
GDE131.1T	●		●				●							
GDE131.1T/B	●		●				●						●	
GDE132.1P	●		●		●				●					
GDE136.1P	●		●		●					●				
GDE161.1N	●	●						●						
GDE161.1N/B	●	●						●					●	
GDE161.1P	●	●			●				●					
GDE161.1P/B	●	●			●				●				●	
GDE161.1Q	●	●				●			●					
GDE161.1T	●	●					●							
GDE161.1T/B	●	●					●						●	
GDE163.1P	●	●			●				●			●		
GDE164.1P	●	●			●				●		●	●		
GDE166.1P	●	●			●				●		●			

### Technical Data

Torque:	44 lb-in (5 Nm)
Runtime for 90°:	90 seconds at 60 Hz opening and closing 108 seconds at 50 Hz opening and closing
Frequency:	50/60 Hz
Power consumption:	3.3 VA (modulating), 2.3 VA (three-position)
Equipment rating (24 Vac):	Class 2 per UL/CSA
Noise level:	<35 dBA (running)
Angle of rotation:	90° nominal, 95° maximum
Shaft dimensions:	3/8 to 5/8 in. (8 to 16 mm) dia., 3/4 in. (20 mm) min. length
Operating temperature:	-22°F to 130°F (-30°C to 55°C)
Storage temperature:	-40°F to 158°F (-40°C to 70°C)
Ambient humidity:	95% RH (non-condensing)
Enclosure:	NEMA 2, IP54 per EN60529
GDExxx.1N and GDExxx.1T:	NEMA 1
Material:	Durable plastic
Agency listings:	UL873, cUL C22.2 No. 24-93
CE Conformity:	Plenum only
Electromagnetic compatibility (EMC)	2004/108/EC
Emissions Standards	EN61000-6-3
Immunity standards	EN61000-6-2
Gear Lubrication:	Silicone-free
Weight	1.06 lb (0.48 kg)
Country of Origin	USA

### Description

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



### Features

- Compact, lightweight design
- Models available with dual independently adjustable auxiliary switches
- Modulating models available with built-in feedback (Exception: GDE161.1N and GDE161.1T do not provide feedback)
- Floating control models available with feedback potentiometer
- Manual override
- Mechanical range adjustment capability
- Easily visible position indicator
- Precabled 18 AWG, 3 ft (0.9 m), or 6 ft (1.8 m) long
- Synchronous motor technology
- UL873 and cUL (C22.2 No. 24-93) listed
- CE certified plenum only
- Connection cables for GDExx.1N models sold separately.

## Typical Specifications

Non-spring return damper actuators shall be the direct-coupled type that requires no connecting linkages. The non-spring return actuators under 100 lb-in shall be capable of direct-mounting to a shaft up to a 5/8-inch diameter. Actuators shall provide stall protection throughout the full range of rotation. All non-spring return actuators shall be capable of both clockwise and counterclockwise operation. All non-spring return actuators shall hold position in the event of a power failure. All modulating actuators shall return to the 0 position in the event only the control signal is lost. All actuators shall provide a means of manually positioning the output coupling in the absence of power. Dual independently adjustable auxiliary switches must be integral to the actuator. All actuators must provide an easily readable high contrast yellow on black position indicator. All actuators shall be UL873 and CSA22.2 listed, CE certified, and manufactured under ISO 9002 and ISO 14000 procedures. Actuators shall be designed for a minimum of 60,000 full stroke cycles at the actuators rated torque and temperatures. Actuators shall be as manufactured by Siemens Industry, Inc.

## Dimensions

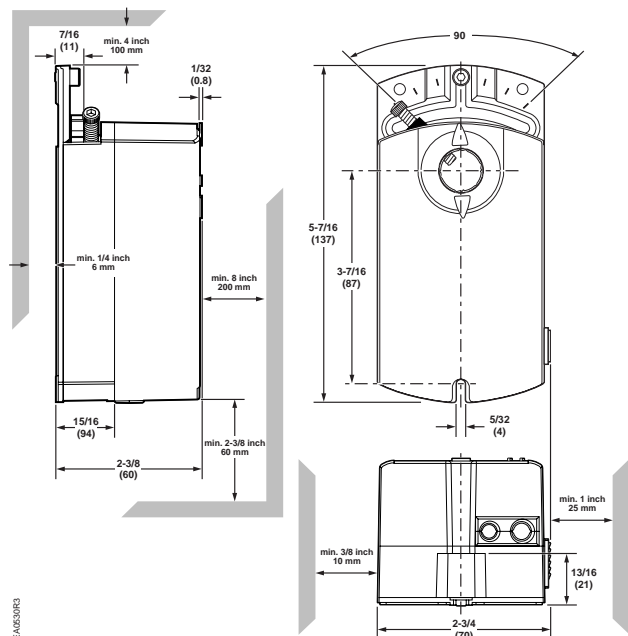
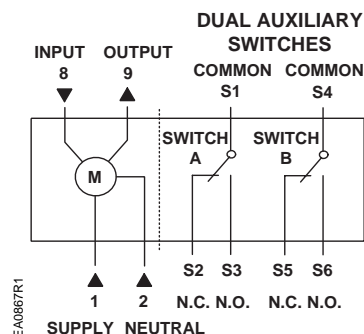


Figure 1. GDE/GLB Dimensions in Inches (mm).

## Wiring Diagrams

0 to 10 Vdc Modulating, 24 Vac:



Floating, 24 Vac:

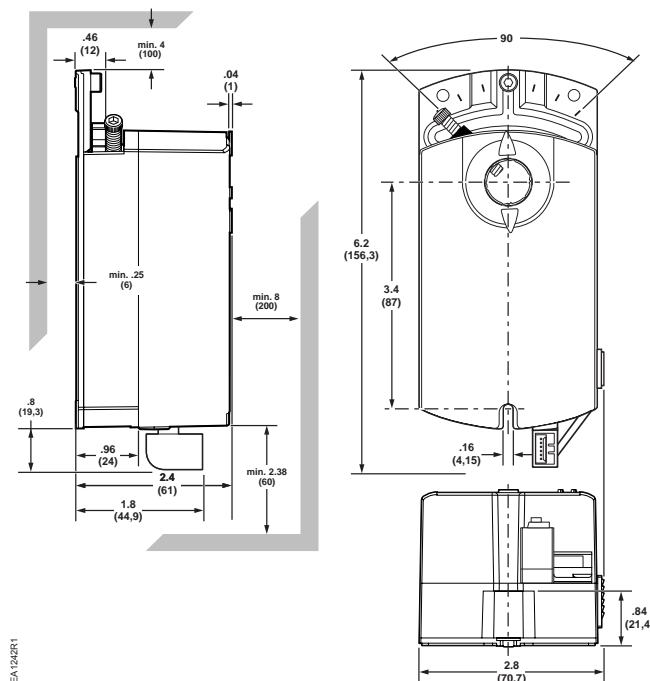
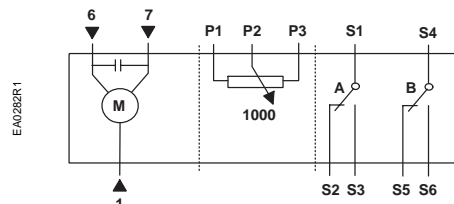


Figure 2. GDE Terminal Strip Model/Post Header AMP Model in Inches (mm).

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.