

Electronic Damper Actuator Non-Spring Return

Easily Replaces:

- Belimo LM Series



44 lb.-in. Torque

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



GDE Series Non-Spring Return
Electronic Damper Actuator.

Description

The OpenAir GDE Series Direct-coupled Non-Spring Return Rotary Electronic Actuator is designed for 0 to 10 Vdc or 2-position/floating control of building HVAC dampers.

Features

Enhanced Features

- 141 models perform both 2-position and floating control
- Selectable modulating control (0 to 10 Vdc or 2 to 10 Vdc)
- 24 Vac/dc compatible
- Line voltage 341 models for 100 to 240 Vac 2-position/floating control
- Integral 1/2 inch conduit connection (No conduit on auxiliary switch types – use ASK76.1U bracket)

Standard Features

- Compact design
- Easy-to-see position indicator
- Self-adapting capability for maximum flexibility in damper positioning
- Energy efficient
- UL, cUL, CE listed
- Quiet operation
- Rated NEMA 2
- Assembled in the U.S.A.
- Manual override
- Modulating actuators contain built-in feedback
- N Versions designed for under floor installation (pluggable cable connections)

Options

- Independently adjustable dual auxiliary switches
- Adjustable start/span
- Standard or plenum cable
- Available in bulk packs for additional savings
- Potentiometer on 2-position/floating control

Applications

The OpenAir GDE Series Damper Actuators are used in Constant or Variable Air Volume installations for the control requiring up to 44 lb.-in. (5 Nm) torque.

Models are available with either a universal cable for wiring in conduit or a plenum-rated cable for applications where conduit is not required.

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Damper Actuators

Specifications

Operating Voltage	24 Vac/dc 100 to 240 Vac (GDE34x)	
Frequency	50/60 Hz	
Power Consumption		
GDE14x		
Running	2 VA (1 W)	
GDE34x		
Running	5 VA (1.6 W)	
GDE16x		
Running	2.1 VA (1.2 W)	
Input signal (8–2)		
Voltage-Input	0(2) to 10 Vdc	
Input Resistance.....	100K Ohms	
Position Output Signal (9–2)		
Voltage-Output	0(2) to 10 Vdc	
Max. Output Current.....	1 mA	
Equipment Rating for Operating Voltage, Input Signal, and Position Output Signal		Class 2
Control Signal Adjustment		
Offset (Start Point).....	Between 0 to 5 Vdc	
Factory Setting	0 V	
Span	Between 2 to 10 Vdc	
Dual Auxiliary Switch		
Contact Rating	4 A resistive, 2 A General Purpose	
Voltage	24 Vac	
Switch Range		
Switch A.....	0° to 90° with 5° intervals	
Recommended Range Usage	0 to 45°	
Factory Setting	5°	
Switch B.....	0° to 90° with 5° intervals	
Recommended Range Usage	45° to 90°	
Factory Setting	85°	
Switching Hysteresis	3°	

Position Feedback		
GDE142.1P	0 to 5000 Ohm <10 mA	
Function		
Torque	44 lb.-in.(5 Nm)	
at 50/60 Hz	90 sec.	
Nominal Angle of Rotation.....	90°	
Max. Angular Rotation	95°	
Shaft Size		3/8 to 5/8-in. (8 to 16 mm) Dia. ● 1/4 to 1/2-in. (6 to 13 mm) Sq. ■
Min. Shaft Length		3/4-in. (20 mm)
Housing Enclosure		NEMA Type 2
Material		Plenum Rated Rugged Plastic
Temperature		
Operation.....	-25°F to 130°F (-32°C to 55°C)	
Storage and Transport.....	-25°F to 140°F (-30°C to 60°C)	
Humidity		95% RH, non-condensing
Agency Approvals		UL873 cUL C22.2 No. 24-93 CE
Pre-cabled Connection		AWG 18
Cable Length		3 ft. (0.9 m)
Dimensions		6.6" H x 2.7" W x 2.3" D (167 mm H x 68 mm W x 59.2 mm D)
Weight		1.35 lb. (0.61 kg)

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Product Ordering

Input Signal	Part No.					Pre-Cabled	No Cables
	Standard	With Potentiometer	Slope/Offset Adjustable	Dual Aux. Switches & Slope/Offset Adjustable	Dual Aux. Switches Only		
Enhanced Models							
2-position/Floating 24 Vac/dc	GDE141.1U	—	—	—	—	Standard	—
	GDE141.1U/B	—	—	—	—	—	—
	GDE141.1P	GDE142.1P	—	—	GDE146.1P	Plenum	—
	GDE141.1P/B (24 ea)					6 ft Plenum	—
GDE141.1Q	—	—	—	—	—	—	
2-position/Floating 100 to 240 Vac	GDE341.1U	—	—	—	GDE346.1U	Standard	—
Modulating 0(2) to 10 Vdc 24 Vac/dc	GDE161.1P	—	GDE163.1P	GDE164.1P	GDE166.1P	Plenum	—
	GDE161.1P/B (24 pk)	—				6 ft Plenum	—
	GDE161.1Q	—	—	—	—	—	—
Standard Models							
Floating 24 Vac	GDE131.1U	—	—	—	—	Standard	—
	GDE131.1U/B (24 pk)	—	—	—	—	—	—
	GDE131.1P	—	—	—	—	Plenum	—
	GDE131.1P/B (24 pk)	—	—	—	—	—	—
	GDE131.1N	—	—	—	—	—	Post Header AMP
	GDE131.1T	—	—	—	—	—	Terminal Strip
0 to 10 Vdc 24 Vac	GDE161.1N	—	—	—	—	—	Post Header AMP
	GDE161.1T	—	—	—	—	—	Terminal Strip
	GDE161.1T/B (24 pk)	—	—	—	—	—	Terminal Strip

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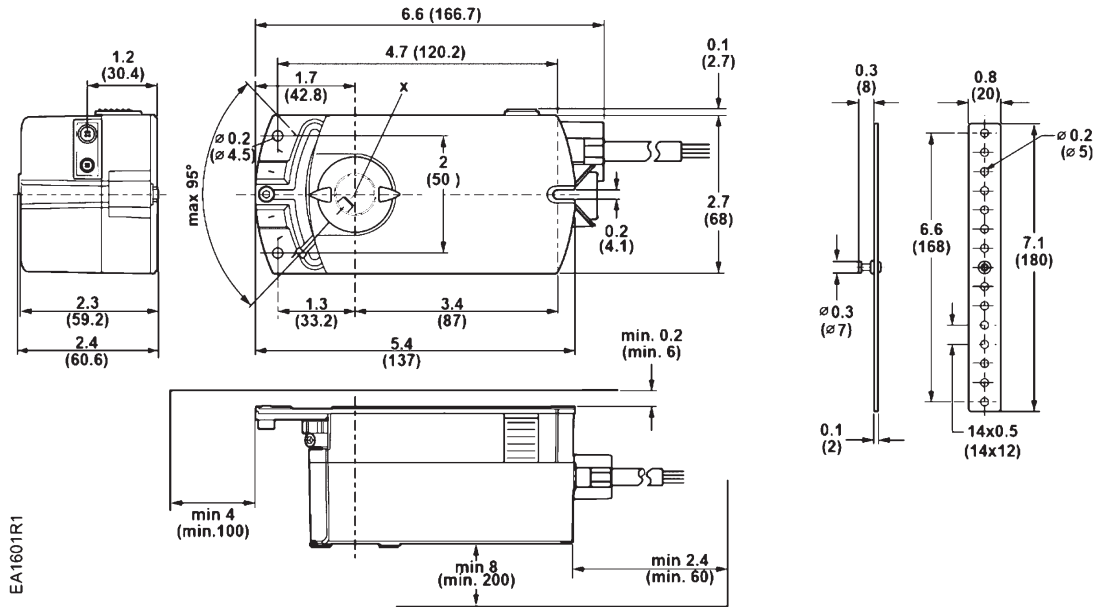
Cables compatible with the GDE131.1N and GDE161.1N sold separately on page B-82.



Damper Actuators

Dimensions

GDE/GLB Series OpenAir Electronic Damper Actuator and Mounting Bracket



Dimensions shown in inches (mm).

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