

## Rotary, Electronic Damper Actuators Fail Safe and Fail-In-Place



**53 lb.-in. Torque**  
 2-position Control  
 Floating Control  
 0-10/2-10 Vdc Modulating Voltage Control  
 (0) 4-20 mA Modulating Current Control



GNP/GAP Series Spring Return and Non-Spring Return Electronic Damper Actuator.

### Description

Designed for control of critical environments the OpenAir direct-coupled fail safe/fail-in-place electronic actuators are available in modulating, two-position, and floating control of laboratory fume hoods, supply and exhaust units.

### Features

- Fast operation, 2 seconds runtime
- One model performs all control signals:
  - 2-position
  - Floating
  - Modulating (0 (2) to 10 Vdc and 4 (0) to 20 mA)
- 24 Vac/dc compatible
- Selectable fail-safe position (fail open or closed)
- Feedback standard on all models
- Highly accurate positioning
- Self centering
- Unique self-centering shaft coupling
- Assembled in the U.S.A.
- Plenum rated
- UL and cUL listed, CE certified
- Manual Override
- Precabled

### Options

- Available with dual, independently adjustable auxiliary switches

### Applications

Used in laboratory fume hoods, constant or variable air volume installations for the control of supply and exhaust air terminals; 53 lb-in (6 Nm) torque.

Models designed for applications that require the damper to return to a fail-safe position when there is a power failure; or models for fail-in-place.

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Damper Actuators

# GNP/GAP Series Specifications

**Operating Voltage (1-2)** .....24 Vac/dc ±20%

**Frequency** ..... 50 to 60 Hz

**Power Consumption**

GNP19x

Running .....20 VA/13W

Holding .....8 VA/5W

GAP19x

Running .....28 VA/19W

Holding .....8 VA/5W

**Control Signal Y/Y1 (Wires 8-2)**

Modulating Input Signal

Voltage Input Signal ..... 0 to 10 Vdc (Max. 35 Vdc)  
or 2 to 10 Vdc (Max. 35 Vdc)

Current Input Signal .....4-20 mA or 0-20 mA

Input Resistance..... >100K ohms

Floating Input Signal ..... 0 or 24 Vac/dc Clockwise

**Control Signal Y2 (Wires 7-2)**

Floating Input Signal..... 0 or 24 Vac/dc Clockwise

**Position Output Signal (Wires 9-2)**

Voltage-Output ..... 0 to 10 Vdc

Maximum Output Current DC..... ± 1mA

**Equipment Rating**.....Class 2, in Accordance with  
UL/CSA Class III per EN 60730

**Dual Auxiliary Switches**

Contact Loading ..... 6 A resistive, 2A inductive

Voltage (No Mixed Operation 24 Vac/230 Vac) .....24 to 250 Vac

Switch Range .....5° to 90°

Step Increments .....5°

**Feedback Signal (Wires 9-2)**

Position Output Signal..... 0 to 10 Vdc

Maximum Output Current..... DC ± 1mA

**Torque**

Running Torque .....53 lb-in (6 Nm)

Maximum Torque.....142 lb-in (16 Nm)

**Runtime for 90° Operating with Motor**..... < 2 seconds

Fail-safe position on power loss (for GNP19x only)..... 2 seconds

**Nominal Angle Of Rotation**..... 90°

**Maximum Angular Rotation**..... 95°

**Fail-Safe Operation**

GNP Actuator Series .....On initial power-up, and  
after a power-fail event, the GNP actuators require  
up to 90 seconds for the capacitors to fully charge.  
During this time the actuator will respond to positioning commands,  
but will not power-fail until the capacitors are fully charged.

**Temperature**

Operation..... -0°F to 122°F (-18°C to 50°C)

Storage and Transport..... -26°F to 158°F (-32°C to 70°C)

**Humidity** ..... 95% RH, Non-condensing

**Shaft Size** ..... 1/4 to 3/4-inch (6.4 to 20.5 mm) dia. ●  
1/4 to 1/2-inch (6.4 to 13 mm) square ■

**Minimum Shaft Length**..... 3/4-inch (20 mm)

**Housing Enclosure**..... NEMA 1 IP54 according to EN 60 529\*

**Material** ..... Die-cast Aluminum Alloy

**Cable Length**..... 3 Ft. (0.9 m)

**Agency Approvals** ..... UL 873  
cUL C22, 2 No. 24-93  
CE

**Dimensions** ..... 8-3/8" H x 3-1/4" W x 2-3/8" D  
212 mm H x 83 mm W x 60 mm D)

**Shipping Weight** ..... 3 lbs 6 oz

\*Limited positions; refer to OpenAir™ GNP/GAP Series Installation Instructions, 129-541.

## GNP/GAP Series Product Ordering

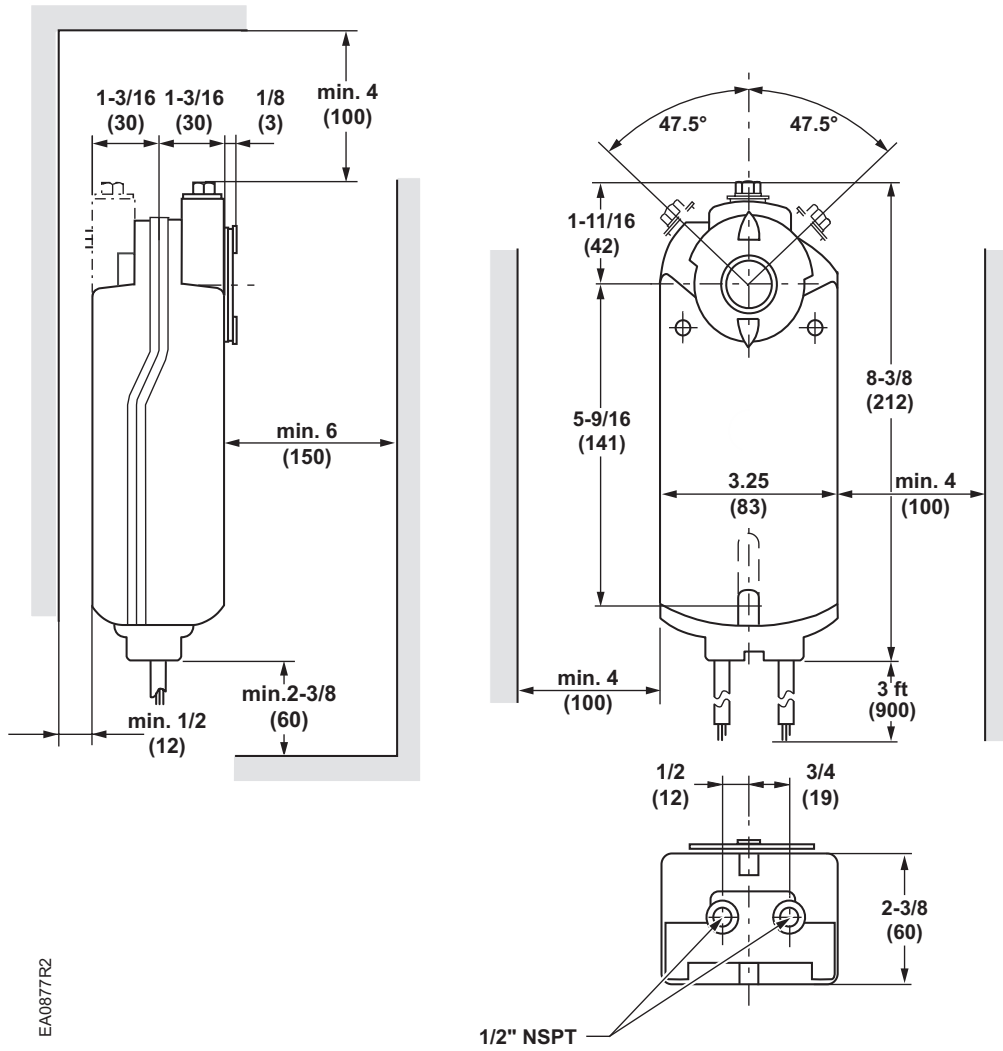
Input Signal	Standard Model w/Plenum Cable	Dual Adjustable Auxiliary Switches
<b>Fail Safe</b> 2P, Floating, 0-10 Vdc, 2-10 Vdc, 4-20 mA	<b>GNP191.1P</b>	<b>GNP196.1P</b>
<b>Fail-in-place</b> 2P, Floating, 0-10 Vdc, 2-10 Vdc, 4-20 mA	<b>GAP191.1P</b>	<b>GAP196.1P</b>

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# GNP/GAP Series Dimensions

## GNP/GAP Series Rotary, Electronic Damper Actuators



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