

OpenAir® GNP/GAP Series, Fail-Safe/Fail-in-Place, Self-adapting, 53 lb-in (6 Nm) Rotary, Electronic Damper Actuators

Description

The OpenAir direct-coupled fail-safe/fail-in-place electronic actuators are designed for modulating, two-position, and floating control of laboratory fume hoods, constant or variable volume installations for the control of supply and exhaust air and terminal units. They are self-adaptive to a reduced mechanical working range for maximum flexibility in damper positioning.



Product Numbers

Product Number	Auxiliary Switch	Fail-safe	Fail-in-Place	Self-Adapting
GNP151.1P		•		•
GNP156.1P	•	•		•
GAP151.1P			•	•
GAP156.1P	•		•	•

Features

- Fast operation, 2 second runtime
- Modulating control (0(2) to 10 Vdc; 4 to 20 mA)
- Feedback is standard on all models
- Highly accurate positioning
- Brushless DC motor technology with stall protection.
- Unique self-centering shaft coupling
- 53 lb-in 6 (Nm) torque
- UL and cUL listed, CE certified
- 24 Vac/dc compatible
- Manual override capability
- Self-adapts control signal to a reduced mechanical working range.

Technical Data

Running torque:	53 lb-in (6 Nm)
Maximum torque:	142 lb-in (16 Nm)
Runtime for 90°:	2 sec. operating
Frequency:	50/60 Hz
Run time for 90°:	2 sec
Fail-safe on power loss (GNP15x only)	

Power consumption: 24 Vac/dc:

Action	GNP15x	GAP15x
Running	20 VA/13W	28 VA/19W
Holding	8 VA/5W	8 VA/5W

Equipment rating (24 Vac): Class 2 per UL/CSA

Angle of rotation: 90° nominal, 95° max.

Shaft dimensions: 1/4 to 3/4-inch (6.4 to 20.5 mm) dia.
1/4 to 1/2-inch (6.4 to 13 mm) sq.

Minimum shaft length: 3/4-inch (20 mm)

Operating temperature: 0°F to 122°F (-18°C to 50°C)

Storage temperature: -40°F to 158°F (-40°C to 70°C)

Transport temperature: -26°F to 158°F (-32°C to 70°C)

Ambient humidity: 95% rh (non-condensing)

Enclosure: NEMA 1

Precabled connection: 18 AWG, 3 ft (0.9 m) long

Agency listings:

UL listed UL 873

cUL listed C22.2 No. 24.93

NOTE: These devices were approved for installation in plenum areas by Underwriters Laboratories, Inc. (UL) per UL 1995.

Electromagnetic compatibility (EMC) 2004/108/EC

Material: Die-cast aluminum alloy

Gear lubrication: Silicone-free

Dimensions: 8-3/8" H × 3-1/4" W × 2-3/8" D
(212 mm H × 83 mm W × 60 mm D)

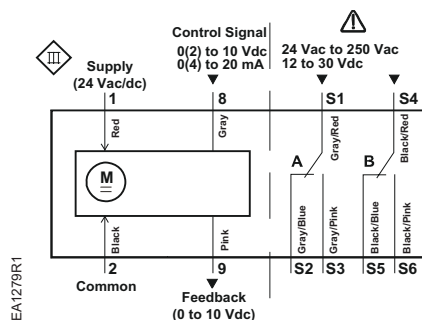
Shipping weight: 3 lbs 6 oz

Typical Specifications

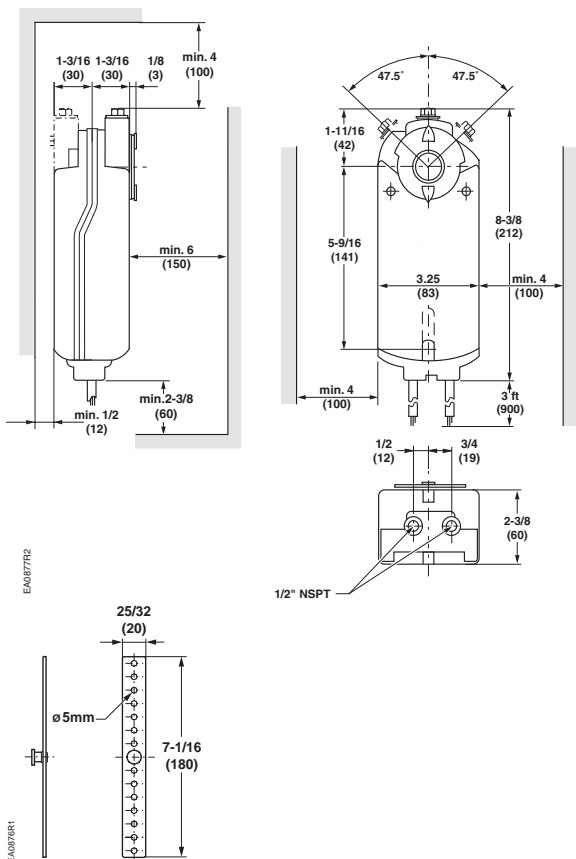
Fail-safe and fail-in-place damper actuators shall be the direct-coupled type that requires no connecting linkages. Feedback shall be standard on all models. These actuators shall be able to self-adapt to a reduced mechanical working range. These actuators shall have a self-centering damper shaft coupling that assures concentric alignment of the actuator's output coupling with the damper shaft for 53 lb-in torque and be capable of direct mounting to a shaft up to a 3/4-inch in diameter both round and square shafts. Actuators shall provide stall protection throughout the full range of rotation. All actuators shall be capable of both clockwise and counterclockwise fail-safe and fail-in-place operation that returns the actuator to a fail-safe position in <2 seconds in response to a loss of power. All actuators shall provide a means of manually positioning the output coupling in the absence of power. Dual, independently adjustable auxiliary switches are available for these actuators. All actuators must be pre-cabled and provide an easily readable position indicator. All actuators shall be CE conforming; UL60730 (to replace UL873) and CSA22.2 listed and manufactured under ISO 9002 and ISO 14000 procedures. Actuators shall be as manufactured by Siemens Industry, Inc.

Wiring Diagram

Modulating; 0(2) to 10 Vdc, 0(4) to 20 mA.



Dimensions in Inches (Millimeters)



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