

## No. 3 Pneumatic Actuator



331-4314 Actuator with fixed mounting bracket and clevis.



331-4312 Actuator with pivot mounting bracket.



331-4311 Actuator, clevis and rocker arm. Mounting for extended shaft.

### Description

Designed with a 2-3/8-inch (60 mm) stroke, the No. 3 Pneumatic Actuator is a rugged, metal-fabricated device that provides gradual or positive actuation of HVAC dampers. The actuator is available in a variety of spring ranges for energy optimizing and sequencing with other devices.

### Features

- Ozone-resistant rolling rubber diaphragm
- Variety of installation options, including:
  - Fixed bracket mounting
  - Direct front mounting
  - Pivot mounting for extended shaft
- Available with positioning relay

### Applications

Recommended for control of mixing box dampers or air valves and damper control for unit ventilators, unit conditioners and small HVAC systems. The No. 3 Pneumatic Actuator is also available with 2-3/4-inch (70 mm) stroke in the three spring ranges.

For more information, contact your local Siemens Building Technologies representative.

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Damper Actuators

Nominal Spring Rating	Max. Thrust lb. (N)				Gradual Operation	Torque Rating lb.-in (Nm)		
	Full Stroke Forward			Spring Return (No Stroke) 0 psi (0 kPa)		2-position Operation or with Positioner		
	15 psi (103 kPa)	18 psi (124 kPa)	25 psi (172 kPa)			15 psi (103 kPa)	18 psi (124 kPa)	25 psi (172 kPa)
3 to 7 psi (21 to 48 kPa)	64 (285)	88 (391)	144 (641)	24 (107)	10 (1.1)	20.2 (2.3)	20.2 (2.3)	20.2 (2.3)
5 to 10 psi (35 to 69 kPa)	40 (178)	64 (285)	120 (534)	40 (178)	10 (1.1)	33.6 (3.8)	33.6 (3.8)	33.6 (3.8)
8 to 13 psi (55 to 90 kPa)	16 (71)	40 (178)	96 (427)	64 (285)	10 (1.1)	53.8 (6.1)	53.8 (6.1)	53.8 (6.1)

With maximum hysteresis of 2.5 psi (17.2 kPa) @ 90° rotation.

## No. 3 Pneumatic Specifications

Effective Diaphragm Area	8 in. <sup>2</sup> (51.5 cm <sup>2</sup> )
Stroke	2-3/8-in. (60 mm)
Max. Air Pressure	30 psi (210 kPa)
Nominal Spring Ranges	3 to 7 psi (21 to 50 kPa) 5 to 10 psi (35 to 69 kPa) 8 to 13 psi (55 to 90 kPa)

### Ambient Temperature Range

Operating	35 to +140°F (2 to 60°C)
Storage	-20 to +140°F (-29 to +60°C)

### Materials

Housing (totally enclosed)	Aluminum
Stem	Plated Steel
Diaphragm	Ozone-resistant EPT rubber
Spring	Steel
Bearing	Delrin

**Air Connection** ..... 1/8" NPT Female with a straight dual barb fitting for 1/4" (6 mm) OD tubing

**Type of Mounting** ..... Front, bracket, pivot, extended shaft

**Shipping Weight (Actuator only)** ..... 1.3 lb. (0.58 kg)

## No. 3 Pneumatic Product Ordering

Description	Mounting Style	Part No.		
		Nominal Spring Range		
		3-7 psi (21-48 kPa)	5-10 psi (35-69 kPa)	8-13 psi (55-90 kPa)
Actuator	Front	<b>331-4310</b>	<b>331-4510</b>	<b>331-4810</b>
Actuator, Bracket	Fixed	<b>331-4313</b>	<b>331-4513</b>	<b>331-4813</b>
Actuator, Bracket, Clevis	Fixed	<b>331-4314</b>	<b>331-4514</b>	<b>331-4814</b>
Actuator, Integral Pivot	Pivot	<b>331-4312</b>	<b>331-4512</b>	<b>331-4812</b>
Actuator, Integral Pivot with pivot post. Mounted on plate for extended shaft with Shaft Clevis and Crank for 3/8" (10 mm), 7/16" (11 mm), 1/2" (13 mm) diameter shaft.	Extended Shaft	<b>331-4311</b>	<b>331-4511</b>	<b>331-4811</b>
Actuator, Integral Pivot with pivot post. Mounted on plate for extended shaft with Clevis and Crank for 3/8" (10 mm), 7/16" (11 mm), 1/2" (13 mm) diameter shaft.	Extended Shaft Kit with Positioning Relay	—	—	<b>332-4811</b>
Actuator, Bracket, ball joint connector	Fixed	<b>331-4331</b>	<b>331-4531</b>	<b>331-4831</b>
Actuator, Bracket, ball joint connector with Positioning Relay	Fixed			<b>332-4831</b>

**If inoperative, replace the entire actuator.**

### Ordering Note

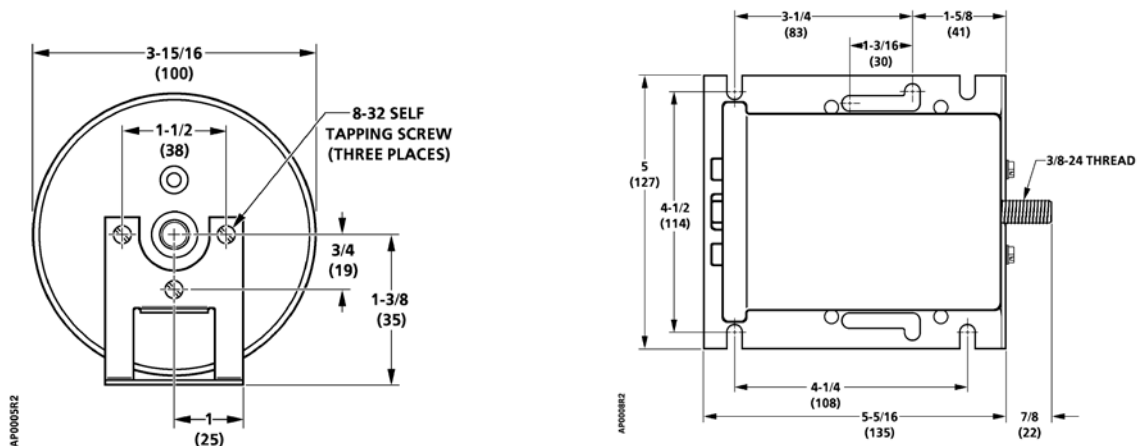
\* When the actuator is ordered with Extended Shaft Mounting, the mounting plate, pivot post and hardware, clevis, damper crank, rocker arm and all screws/nuts are included. Order other frame mounting accessories as required if not supplied by damper manufacturer.



## Accessories & Service Kits

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## No. 3 Pneumatic Dimensions



Dimensions shown in inches (mm).



Part No. in black box Ships same day when requested through Rapid Response™ shipping. See inside back cover for details.

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