

D-3062 Pneumatic Piston Damper Actuator

Description

The D-3062 Pneumatic Actuator is a multipurpose positioning device used to accurately position small dampers primarily on Variable Air Volume (VAV), terminal units and small ventilating dampers in response to output signals of a pneumatic controller or electro-pneumatic transducer.

The actuator is also recommended for use on other air flow control dampers, in interior locations, with a up to a maximum area of 4 square feet for proportional volume control and 6.25 square feet for two position actuation provided that the torque requirements are compatible with the specific application.

The D-3062 is UL component recognized for use on UL Classified 555/555S smoke and combination fire/smoke dampers, which have been tested and approved to a degradation temperature of 250°F (121°C).

Refer to *D-3062 Pneumatic Actuator Product Bulletin (LIT-2681051P)* for important product information.

Features

- high power to size ratio for locations in confined spaces
- all-aluminum housing which is lightweight and non-combustible
- telescoping linkage for fast and flexible installation
- front or rear mounting options for flexible mounting configurations
- optional mounting kits to cover any application and replacement of obsolete units

Selection Charts

D3062 Pneumatic Piston Damper Actuators

| Code Number | Nominal Spring Range, psig (kPa) |
|-------------|------------------------------------------|
| D-3062-1 | 3-7 (21-49) |
| D-3062-2 | 5-10 (35-70) |
| D-3062-3 | 8-13 (56-91) |
| D-3062-4 | 11-15 (77-105) |
| D-3062-41 | 8-13 (56-91) with Universal Mounting Kit |

Mounting Kits¹ for D-3062 Damper Actuators

| Code Number | Description | Weight, lb (Kg) |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| D-3062-100 | Universal Mounting Kit for Type "W" (N.O. or N.C.) and Type "F" (N.C. only). The D-3062-100 mounting kit contains all parts required for the actuator to be mounted inside or outside the duct for use with D-1300 series dampers. | 3.5 (1.59) |
| D-3062-101 | Auxiliary Mounting Kit for multi-position swivel mounting. | 0.8 (0.36) |
| DMPR-KR001 | RD-2000 - 9 to 16 in. round damper mounting kit | 1.0 (0.45) |

1. Mounting kits include bracket, linkage, and all necessary mounting hardware.

Applications

When used with proportional control, the damper size is limited to 4 square feet maximum.

As a 2-position control, damper size is limited to 6.25 square feet. As determined by testing using Johnson Controls® D-1300 dampers, width and height are limited to 30 inches maximum.

Four nominal spring ranges are available: 3-7 psi (D-3062-1), 5-10 psi (D-3062-2), 8-13 psi (D-3062-3), and 11-15 psi (D-3062-4).

The control air pressure for normal HVAC operation is 0-20 psig. The minimum control pressure for safety damper ventilation mode is 20 psi with the maximum pressure of 30 psi. When used for both proportional and smoke applications, a separate air signal should be provided to override normal HVAC operations and enact safety damper functions.

Note: The D-3062 is not able to be configured for frame mounting in power fail open damper applications.

Repair Information

The D-3062 Damper Actuator has a sealed body, so field repairs cannot be made. If it fails to operate within its specifications, replace the unit. For a replacement damper actuator, contact the nearest Johnson Controls representative.



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Accessories for D-3062 Damper Actuators

| Code Number | Description | Weight, lb (Kg) |
|-------------|----------------------------------------------------|-----------------|
| DMPR-KC050 | Crank Arm: 7/16 in. adjustable to 2-3/4 in. radius | 0.5 (0.23) |
| DMPR-KC051 | Crank Arm: 3/8 in. adjustable to 2-3/4 in. radius | 0.5 (0.23) |
| DMPR-KC053 | Crank Arm: 1/2 in. adjustable to 2-3/4 in. radius | 0.5 (0.23) |
| DMPR-KC300 | Swivel Ball Joint | 0.5 (0.23) |
| D-9999-152 | Clevis Pin No. 6 | 0.5 (0.23) |
| D-9999-153 | Twist Lock, Pin No. A | 0.5 (0.23) |
| D-3062-104 | Clevis - fork type | 0.5 (0.23) |
| D-3062-106 | Rod - 1/4-20 threaded one end | 0.5 (0.23) |
| D-3062-108 | Rod - spade end | 0.5 (0.23) |
| D-3073-604 | Ball Joint - weather resistant | 0.5 (0.23) |

D-3062 Pneumatic Piston Damper Actuator (Continued)

Technical Specifications

| D-3062 Pneumatic Actuators | |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke | 2 inches (51 mm) |
| Control Air Pressure | 0-20 psig for HVAC 20 psig (137 kPa) minimum for safety damper functions 30 psig (205 kPa) maximum |
| Air Connections | 1/8 in. NPT straight barbed fitting for 5/32 or 1/4 in. O.D. polytubing (furnished). Compression fitting for 1/4 in. O.D. copper tubing (F-200-3, order separately). |
| Ambient Operating Conditions (HVAC) | -20 to 150°F (-29 to 66°C) |
| Effective Diaphragm Area | 6.6 in. ² (43 cm ²) |
| Materials | Body - Aluminum, Diaphragm - Synthetic elastomer |
| Dimensions | 3-3/16 in. diameter x 6-13/16 in. long |
| Shipping Weight, lb (Kg) | 1.2 (0.54) |
| Agency Listing | UL Recognized component to 250°F (121°C) with compression fitting for copper tubing File no. R15581 |

Maximum Actuator Force at 20 psig (140 kPa)

| Nominal Spring Range psig (kPa) | Stroke | Force lb (Newton) | Torque Output for 90° Rotation | D-3062-Suffix |
|---------------------------------|--------|-------------------|--------------------------------|---------------|
| 3 to 7 (21 to 49) | Power | 85.8 (382) | 85.8 lb-in (9.69 N-m) | -1 |
| | Return | 19.8 (88) | 19.8 lb-in (2.24 N-m) | |
| 5 to 10 (35 to 70) | Power | 66 (294) | 66 lb-in (7.45 N-m) | -2 |
| | Return | 33 (147) | 33 lb-in (3.73 N-m) | |
| 8 to 13 (56 to 91) | Power | 46.2 (206) | 46.2 lb-in (5.22 N-m) | -3 |
| | Return | 52.8 (235) | 52.8 lb-in (5.96 N-m) | |
| 11 to 15 (77 to 105) | Power | 33 (147) | 33 lb-in (3.73 N-m) | -4 |
| | Return | 72.6 (323) | 72.6 lb-in (8.20 N-m) | |

Note: Force calculated using 6.6 lb/psig available actuator force.