

## Description

This series of actuators is designed for use in Smoke Control Systems. The actuators position automatic smoke dampers in ambient temperatures, or elevated temperatures up to 450° F, for 30 minutes. The units may be used for gradual or two-position applications.

MCP-8035s are manufactured and tested to meet Underwriters Laboratories Standard UL555S for use on "Leakage Rated Dampers For Use In Smoke Control Systems".

Models are available with either post or right angle bracket mounting. Right angle models are shipped with crankarms for 1/2" or 3/8" damper shafts. A variety of spring and bracket/linkage combinations are available to meet most requirements.

## Features

- ◆ Dampers can be positioned for up to 30 minutes at ambient or elevated temperatures
- ◆ Gradual or two-position operation
- ◆ Variety of springs and bracket/linkage choices
- ◆ Meets Underwriters Laboratories Standard UL555S



## Models

Using the table below choose the model appropriate for your application. Choose one number for "X" and one for "YYY".

**MCP-8035-X-YYY**

**"X" Spring Ranges & Retracted/Extended Torque**  
(Based on 0 and 20 psi applied, at 90°)

- 2: 3 to 12 psi; 20/54 in-lbs. (21-83 kPa; 2/6 N•m)
- 3: 5 to 10 psi; 34/67 in-lbs. (34-69 kPa; 4/8 N•m)
- 5: 8 to 13 psi; 54/47 in-lbs. (55-90 kPa; 6/5 N•m)
- 8: 4 to 8 psi; 27/81 in-lbs. (28-55 kPa; 3/9 N•m)

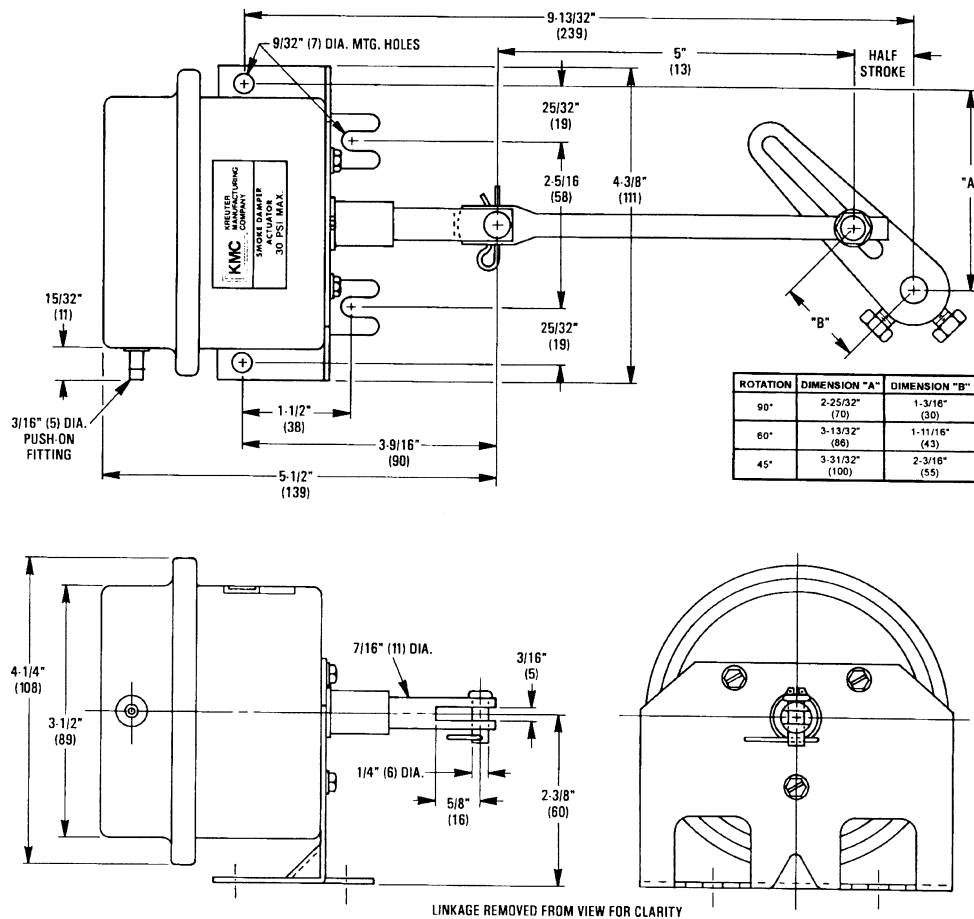
**"YYY" Bracket/Linkage**

- 100: without linkage
- 101: with clevis pin and cotter pin
- 111: 1/2" crankarm
- 112: 3/8" crankarm

Damper Type	Up to 1000 FPM	1000 to 2500 FPM	2500 to 3000 FPM
Opposed blades without seals	3 in-lb / sq.-ft	4.5 in-lb / sq.-ft	6 in-lb / sq.-ft
Parallel blades without seals	4 in-lb / sq.-ft	6 in-lb / sq.-ft	8 in-lb / sq.-ft
Opposed blades with seals	5 in-lb / sq.-ft	7.5 in-lb / sq.-ft	10 in-lb / sq.-ft
Parallel blades with seals	7 in-lb / sq.-ft	10.5 in-lb / sq.-ft	14 in-lb / sq.-ft

## Details

All dimensions are in inches (mm).



## Specifications

**Effective Area** 8 sq. inches (52 sq. cm)

**Stroke** 1–11/16" (43 mm)

**Control Signal Pressure Input**  
0 to 20 psig (138 kPa)  
operating 30 psig (207 kPa)  
maximum

*See note under Temperature Limits.*

**Supply Connection** 3/16" (4.8 mm) O.D. metal fitting

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**Weight**

2.3 lbs. (1.04 kg) w/linkage

2.0 lbs. (0.9 kg) w/o linkage

## Material

Body	CRS w/zinc and dichromate
Diaphragm	Silicone
Piston	Glass-filled nylon
Shaft	CRS with nickel plating
Bearings	Bronze

## Temperature Limits

**NOTE:** If application requires operation near maximum temperature AND maximum pressure, the actuator should be piped in hard copper.

Operating	-20° to 250° F (-29° to 121° C)
Shipping	-40° to 250° F (-40° to 121° C)
Elevated	450° F (232° C) for 30 minutes exposure

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