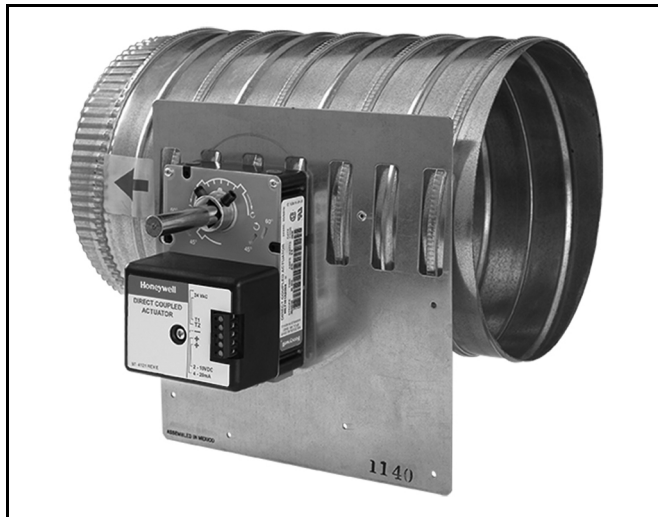


DM7600A, DM7600B Commercial Zone Damper/Actuator

PRODUCT DATA



FEATURES

- Six damper sizes, 6 to 16 inches, in 2 inch increments.
- One or two accessory switches available, adjustable over 90° stroke.
- Three inputs available: floating, 2-10 Vdc, 4-20 mA.
- Same accessories and features available as for ML6161 or ML7161.
- Neoprene and silicone seal for tight closing and low leakage
- Oilite bearings for long life.
- 90-degree damper travel for a variety of applications

SPECIFICATIONS

Models:

Actuators are 35 lb-in. torque with 90 second timing, which control 90° dampers. Six damper sizes ranging from 6 to 16 inches (in two inch increments) are available. See Table 1.

APPLICATION

The DM7600 Commercial Zone Damper/Actuator consists of either an ML7161A (DM7600A) or an ML6161A (DM7600B) Direct Coupled Actuator (DCA) assembled to a round duct damper section (6 to 16 inches in diameter).

The DM7600 is intended to be used in commercial zoning systems as an individual zone damper controlled by a zone thermostat, and as a bypass damper controlled by a duct static pressure sensor/controller.

A commercial zoning system controls discharge of a constant volume HVAC unit with a series of zone dampers and a bypass damper to provide the required space temperature by varying both the delivered air temperature and volume. The zone space thermostat positions the corresponding DM7600 to satisfy the space requirements.

Table 1. DM7600 Models.

OS Number	Actuator	Damper Size (in.)
DM7600A1005	ML7161A2008	6
DM7600A1013		8
DM7600A1021		10
DM7600A1039		12
DM7600A1047		14
DM7600A1054		16
DM7600B1004	ML6161A2009	6
DM7600B1012		8
DM7600B1020		10
DM7600B1038		12
DM7600B1046		14
DM7600B1053		16



Dimensions:

ML6161, ML7161: Refer to form 63-2209.
 Damper Portion: See Table 2.

Electrical Ratings (Actuator):

Input Voltage: 24 Vac, +20/-30%, 50-60 Hz.
 Power Consumption (Maximum), at 24 Vac:
 ML6161A: 2.0W, 0.085A, 1.8 VA.
 ML7161: 4.5W, 0.20A, 4.8 VA.

Temperature Ratings:

Ambient: 32 to 130° F [0° C to 52° C].
 Shipping and storage: -20° F to 130° F [-29° C to 40° C].

Humidity Ratings: 5 to 95% RH noncondensing.

Table 2. Dimensions, Pressure Drop, and Flow Rates.

Diameter in. (mm)	Length in. (mm)	Pressure Drop ^a in. w.c. (kPa)	Flow Rate cfm
6 (152)	12 (305)	0.05 (0.012)	180
		0.075 (0.019)	210
		0.10 (0.025)	240
8 (203)	12 (305)	0.05 (0.012)	410
		0.075 (0.019)	485
		0.10 (0.025)	580
10 (254)	12 (305)	0.05 (0.012)	693
		0.075 (0.019)	849
		0.10 (0.025)	980
12 (305)	13 (330)	0.05 (0.012)	1200
		0.075 (0.019)	1460
		0.10 (0.025)	1600
14 (356)	15 (381)	0.05 (0.012)	1336
		0.075 (0.019)	1636
		0.10 (0.025)	1890
16 (406)	17 (432)	0.05 (0.012)	1690
		0.075 (0.019)	2080
		0.10 (0.025)	2400

^aPressure drop (normal operating range):
 Zone Dampers: 0.05 to 0.075 in. w.c.
 Bypass Dampers: 0.05 to 0.1 in. w.c.

Materials:

Damper Blade—16 GA corrosion resistant steel.
 Blade Seal—Neoprene rubber with UL94HF1 rating.
 Damper Shell:
 6 to 10 in.: 24 GA galvanized steel.
 12 to 16 in.: 20 GA galvanized steel.

Damper Leakage: Less than 1% of flow at 1500 FPM air velocity.

Damper Position vs. Flow Rate: See Fig. 1 through 6.

Torque Ratings: See Table 3.

Table 3. Torque Ratings.

	Torque
Running	35 lb-in. (4.0 N•m)
Breakaway	35 lb-in. (4.0 N•m)
Stall Minimum	45 lb-in. (5.0 N•m)
Stall Maximum	70 lb-in. (8.0 N•m)

Motor Timings (at 60 Hz):

ML6161A2009, ML7161A2008: 90 seconds.

Approvals:

Underwriter's Laboratories Component Recognized:
 File No. E4436, Guide No. XAPX, CSA certified.

Accessories:

200976A Auxiliary Potentiometer (0 to 500 ohm).
 200976C Auxiliary Potentiometer (0 to 2000 ohm).
 201052A Auxiliary Switch (one).
 201052B Auxiliary Switch (two).
 201391 Shaft Adapter.
 4074ENJ Bag Assembly—includes stop pin, shaft adapter, and two minimum-position screws.
 4074ENY Bag Assembly—includes stop pin and shaft adapter.
 4074EVK Short Shaft Extender.
 7640QW Metal Enclosure—for attaching conduit to actuator.
 T6984 Floating Thermostat—for use with 90-second and seven-minute actuators.
 T7984 Modulating Thermostat—for use with ML7161.

ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number. If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Honeywell Environmental and Combustion Controls Sales Office (check white pages of your phone directory).
2. Honeywell Customer Care
 1985 Douglas Drive North
 Minneapolis, Minnesota 55422-4386
3. <http://customer.honeywell.com> or <http://customer.honeywell.ca>

International Sales and Service Offices in all principal cities of the world. Manufacturing in Belgium, Canada, China, Czech Republic, Germany, Hungary, Italy, Mexico, Netherlands, United Kingdom, and United States.

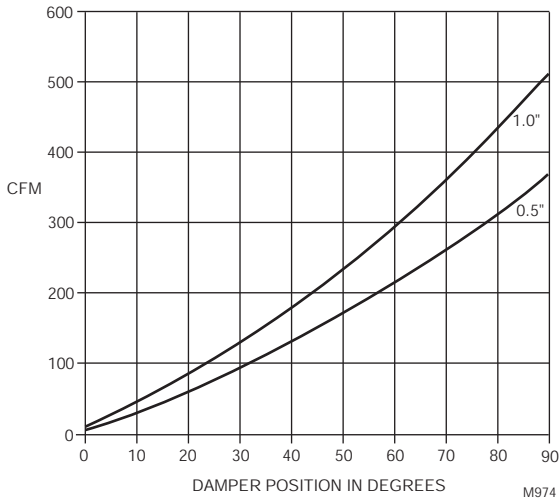


Fig. 1. 6-inch DM7600A,B flow rate vs. damper position.

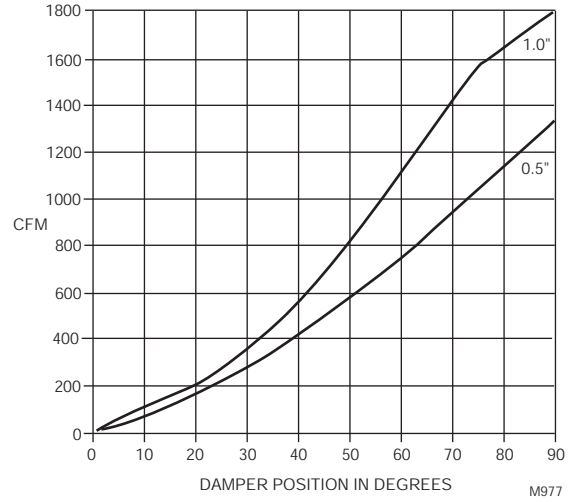


Fig. 4. 12-inch DM7600A,B flow rate vs. damper position.

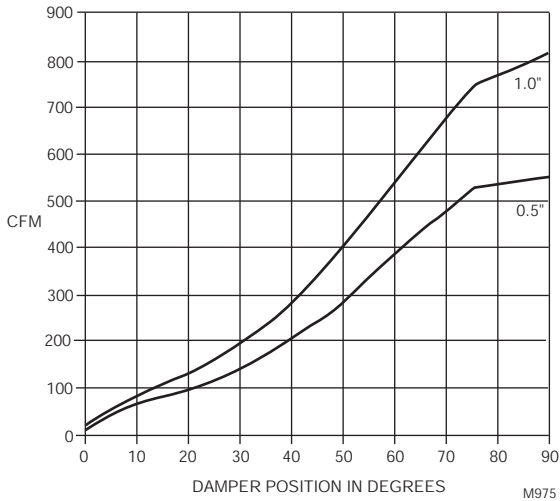


Fig. 2. 8-inch DM7600A,B flow rate vs. damper position.

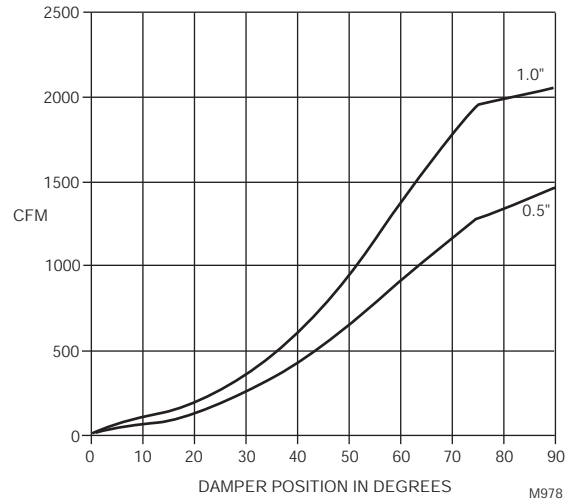


Fig. 5. 14-inch DM7600A,B flow rate vs. damper position.

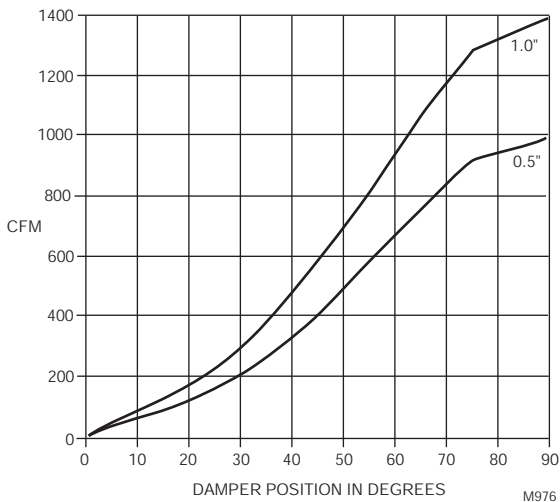


Fig. 3. 10-inch DM7600A,B flow rate vs. damper position.

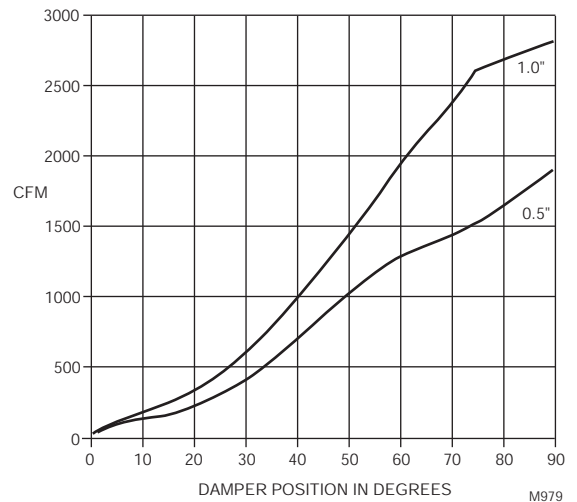


Fig. 6. 16-inch DM7600A,B flow rate vs. damper position.

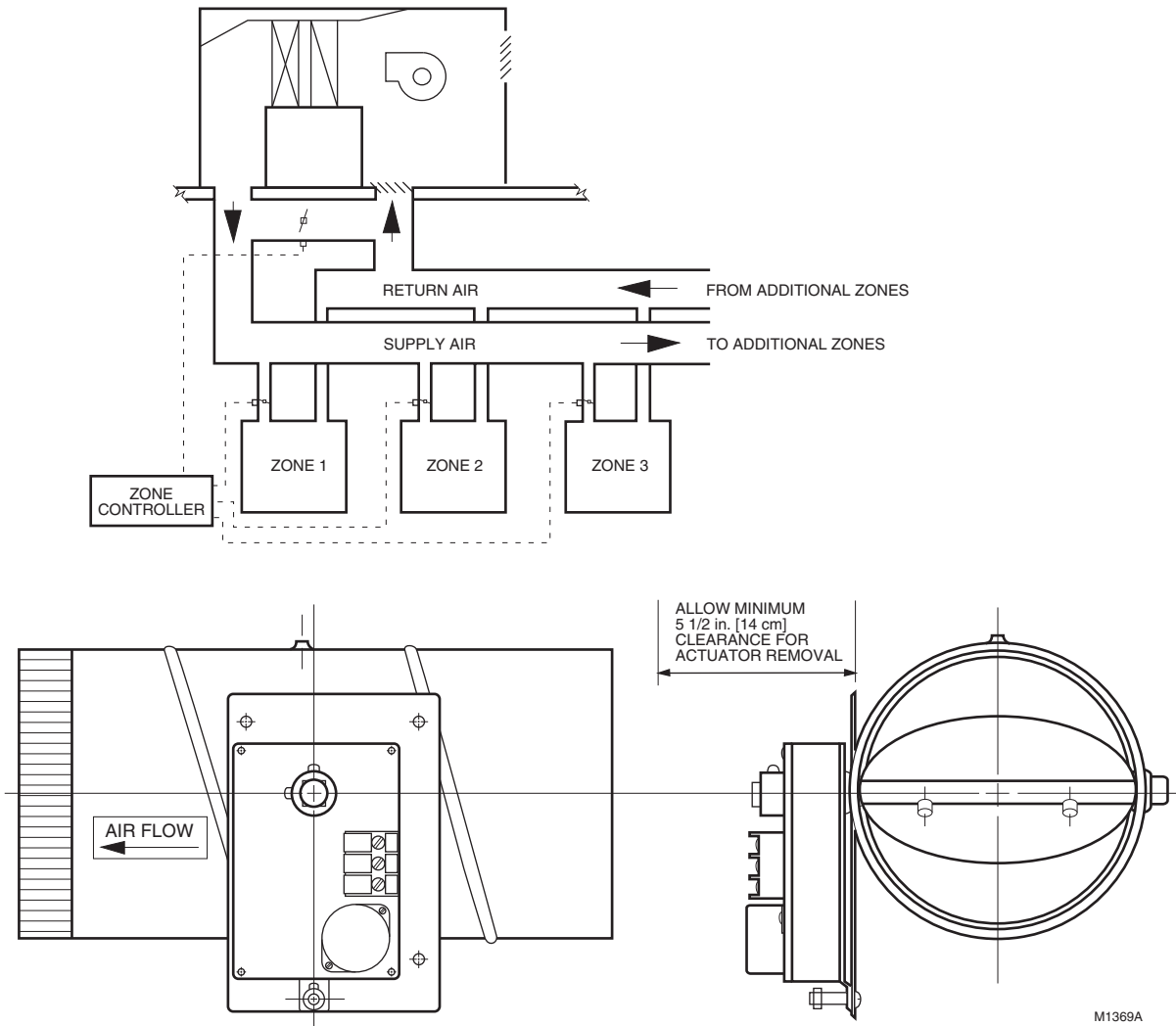


Fig. 7. Typical multizone configuration.

INSTALLATION



CAUTION

Motor Damage Hazard.
Deteriorating vapors and acid fumes can damage metal parts.
Install motor in areas free of acid fumes and other deteriorating vapors.



CAUTION

Careless Installation Hazard.
Forcibly turning the motor shaft damages the gear train and stroke limit contacts.
Never turn the motor shaft manually (by hand or with a wrench).

Choose a location for the damper/actuator that allows for enough clearance for servicing.

Refer to form 63-2209 for wiring actuators to the control system and complete Operation and Checkout procedures.

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