

QUALIFICATIONS:

- UL 555 & CAN/ULC-S112 CLASSIFIED FIRE DAMPER 1 1/2 hr. Label (File #'s R9492 & R19569).
- Meets NFPA 80, 90A, 92A, 92B, 101 and 105 as well as IBC & NBC (Canada) Building Code requirements.
- California State Fire Marshall Listing No. 3225-0935:106.
- City of New York. MEA# 336-03-M.
- These dampers are qualified for installation in 1 hr. and 2 hr. rated masonry walls or floors and 1 hr. and 2 hr. rated metal or wood stud drywall partitions.

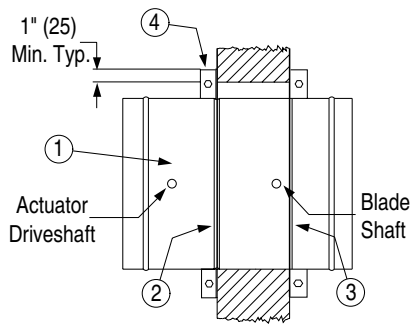


Figure 1. Masonry Wall or Floor

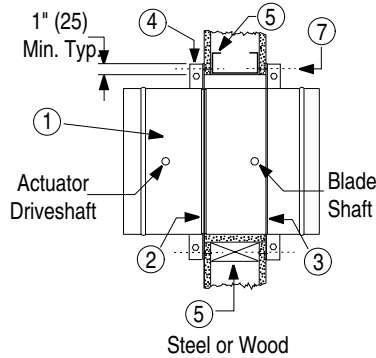


Figure 2. Drywall Partition

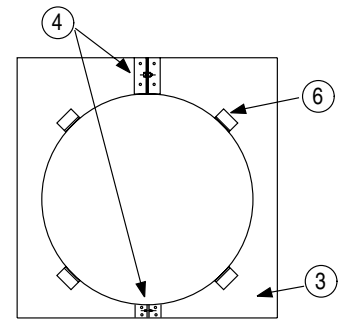
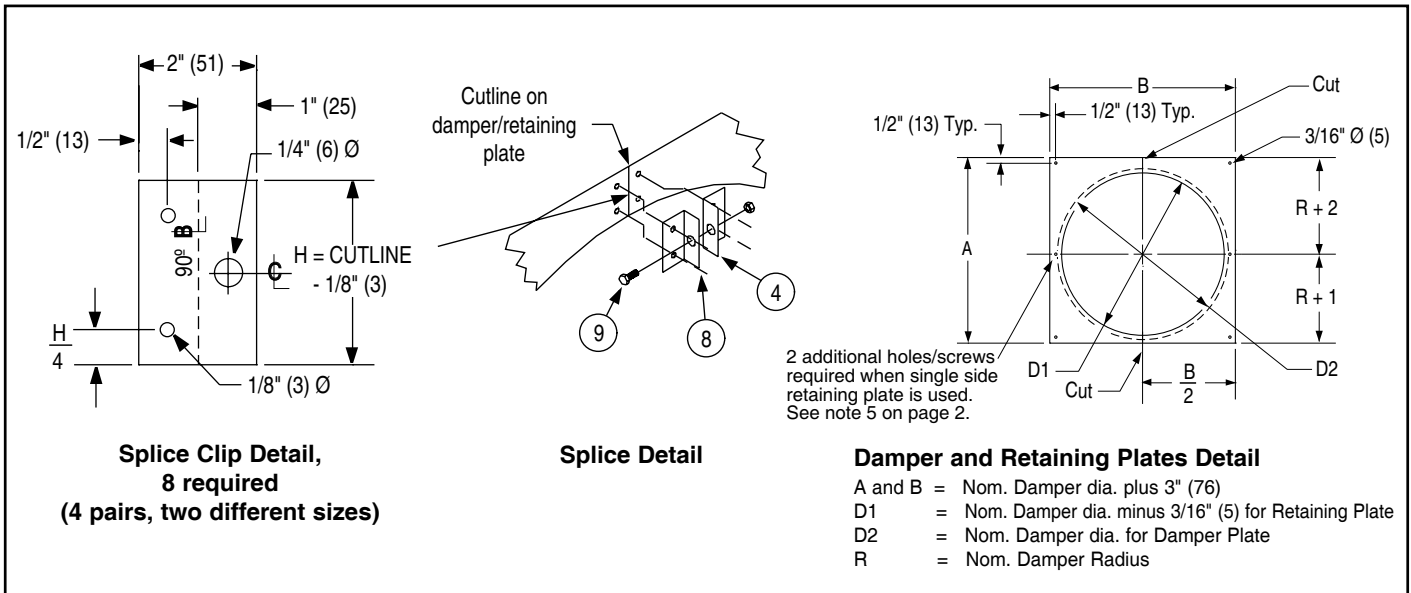


Figure 3. Damper Plate



ITEMS:

1. Model 770-TR or 770-TR-SS damper.
2. Retaining Plate, 20 gauge (1.0) galvanized steel (770-TR) or stainless steel (770-TR-SS).
3. Damper Plate, 20 gauge (1.0) galvanized steel (770-TR) or stainless steel (770-TR-SS).
4. Splice clips, 20 gauge (1.0) galvanized steel (770-TR) or stainless steel (770-TR-SS), two pairs for each plate.
5. Steel or wood runner.
6. Retaining clip - 1" x 1" x 1" (25 x 25 x 25) 20 gauge (1.0) galvanized steel (770-TR) or stainless steel (770-TR-SS) angle (see note 5).
7. #10 sheet metal screw
8. 1/8" (3) dia. steel pop rivet, or #10 x 1/2" (13) sheet metal screws, or tack or spot welds.
9. 1/4" (6) dia. x 1" (25) long nut and bolt for securing splice clip halves together.

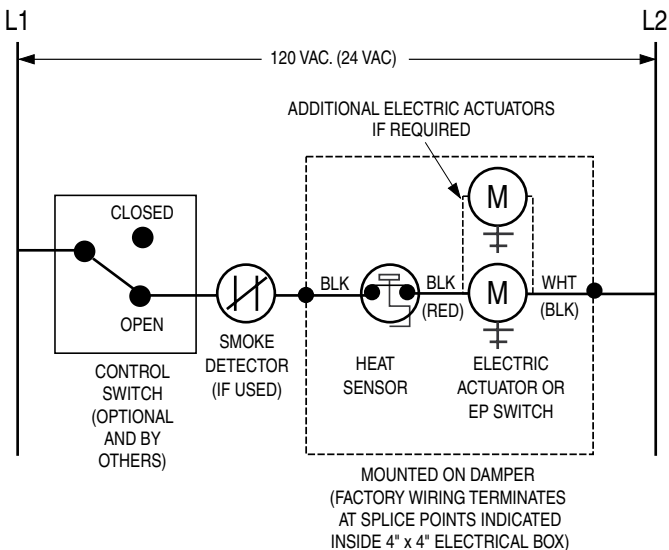
For Metal and Wood Stud Framing in Drywall Partitions instructions; See doc. FDSWSFINST

GENERAL INSTALLATION:

1. Installation shall be in accordance with NFPA 90A, latest edition. Connecting duct gauge shall be 20 gauge (1.0) maximum (standard integral damper sleeve) and in accordance with SMACNA Duct Construction Standards. (Exception, see Note 7).
2. The square (drywall/masonry) or round (masonry) wall opening shall be 1" (25) larger than the overall size of the damper diameter.
3. If not supplied, fabricate retaining plate and damper plate using dimensions shown in details.
4. Install retaining plate in groove on actuator side of damper using 1/4" (6) dia. nut and bolt through splice clip. Install damper within wall opening as shown in Figure 1 or 2. Install damper plate and clamp using 1/4" (6) dia. nut and bolt through splice clip. Both retaining and damper plates should be tight to the wall.
5. On drywall installations screw the retaining and damper plates to the wall through the 3/16" (5) dia. holes in the corners of the plates. Major diameter or body of screws must engage metal or wood studs or runners. On masonry installations, the damper plate shown in Fig. 3 should be used. This has four equally spaced clips 1" x 1" x 1" (25 x 25 x 25) 20 gauge (1.0) which are attached to the plate and damper sleeve using 3/16" (5) rivets, tack or spotwelds. (Make sure that fasteners do not interfere with the operation of the damper blade.) For dampers 12" (305) dia. or less, single side retaining plate may be used (damper plate optional) but retaining plate must be fastened to wall or floor with 6 screws instead of 4.
6. The connecting duct shall not be continuous through the wall or floor but shall terminate at each end of the damper sleeve. Sleeves shall extend a maximum of 6" (152) on either side of the wall or floor opening or 16" (406) on one side intended for use with an actuator or an access door. The sleeve may extend a maximum of 16" (406) on each side when access door and actuator are on opposite sides.
7. Connecting ducts shall be attached using three equally spaced #10 sheet metal screws or a 4" (102) wide draw band spanning the joint. Duct sealant may be used. If damper frame/sleeve and connecting duct are 16 gauge (1.61), a rigid duct connection may be used.
8. **Maximum Damper Size:** 24" (610) dia. Minimum size is 6" (152) dia.
9. **Actuator Connections and Accessories:** Combination fire/smoke dampers and qualified actuators are tested together by UL and are factory installed to qualify for damper/actuator standard warranties. Factory installed electric actuators are either 24, 120 or 230 VAC. All wiring must be in accordance with the appropriate electrical codes and NFPA 70. Factory installed pneumatic actuators are rated at and have a maximum pressure of 25 PSI. The pneumatic actuator shall be connected to the air supply thru metallic tubing. A short silicone tubing pigtail is acceptable.

ERL (Electric Resettable Link): Dampers are supplied with an electric thermostat-type temperature responsive device as standard. Refer to Figure 4 for wiring of the ERL. If dampers are ordered with a pneumatic actuator and ERL, an EP switch is required with an appropriate electric power circuit to allow the ERL to control the pneumatic actuator.

When DTO Dual Temperature Override Sensors (MLS-400) or MLS-300 position indicators are used, refer to the installation and wiring instructions for these units. Documents IOM-DTO and IOM-MLS3 (H or N) respectively.



REFER TO THE APPROPRIATE NAILOR INSTALLATION INSTRUCTION SUPPLEMENTS FOR ADDITIONAL INFORMATION OR SPECIAL REQUIREMENTS:

DTO DUAL TEMPERATURE OVERRIDE SENSOR (MLS-400)	DTO
ERL ELECTRIC RESETTABLE LINK	ERL
STEEL AND WOOD STUD FRAMING	FDSWSFINST
CAVITY SHAFT WALL PARTITIONS	FDCSWINST

Figure 4. ERL Wiring

Dimensions are in inches (mm).

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