

INSTALLATION INSTRUCTIONS MODEL CFSDR1 ROUND (ACTUATOR DRIVEN) CEILING DAMPER 1 HOUR UL555C RATED

APPLICATION

The CFSDR1 is an actuator driven round ceiling damper. It is designed for use in fire rated floor-ceiling or roof-ceilings as shown in the UL Fire Resistance Directory. The CFSDR1 may be installed on the neck of any diffuser and fails close upon loss of power.

GENERAL INSTALLATION

1. Ceiling Penetrations

Ceiling penetrations should be located within ceiling tiles or panels without necessitating cuts in the ceiling suspension main runners or cross tees. If required, a maximum of one runner or cross tee may be cut to enable proper damper location and installation. Each cut end shall be supported by a minimum 12 SWG vertical hanger wire. A 1/2" (13) clearance must be maintained between the air inlet/outlet and the cut end of the runner or cross tee.

2. Diffuser or Grille

The steel diffuser or grille, minimum 24 gage (.6) is supplied by others and is sized to overlap on the bottom edges of the ceiling partition opening a minimum of 3/4" (19) and fit snugly against the ceiling material. The damper must be fastened to the diffuser or grille using No. 8 (M4) screws, 3/16" (5) tubular steel rivets, or 1/4" (6) minimum tack welds spaced 6" (152) O.C. Use a minimum of three screws, rivets or welds equally spaced.

3. Thermal Insulating Blanket

The thermal insulating blanket (supplied by the factory) must cover all exposed horizontal and vertical back surfaces of the diffuser and fit inside the adjacent tee bars. The thermal blanket is installed by laying it over the exposed surface of the ceiling diffuser. The thermal blanket is retained around the damper or diffuser neck by a 16 SWG minimum steel wire with the wire ends twisted tightly together.

4. Support

The damper and diffuser assembly is supported by the ductwork or by the ceiling structure.

Support by the ductwork: Refer to installation figure 1. Two 16 MSG x 1 1/2" (38) channels support the ductwork adjacent to both sides of the duct drop. The channels are attached to the ceiling structure with minimum 12 SWG vertical (not splayed) wire. The damper and diffuser assembly are fastened to the duct drop using minimum #8 sheet metal screws, 3/16" (4.5) tubular steel rivets or 1/4" (6) tack welds at 6" (152) o.c.

Support by the ceiling structure: Refer to installation figure 2. The assembly may be attached to the ceiling structure using a minimum two 12 SWG hanger wires looped around a #10 sheet metal screw fastened to the damper frame.

5. Duct Connections

Round duct connections can consist of a steel clamp, 16 gage (1.6) steel wire or 3 - #10 sheet metal screws spaced equally around the circumference of the duct. If flex duct is used the connections can be a steel clamp, plastic strap or minimum 18 gage (1.2) steel wire.

Note: When optional sealing of these joints is desired, the following sealants may be applied in accordance with the sealant manufacturer's instruction.

Hardcast Inc. – Iron Grip 601

Eco Duct Seal 44-52

Precision – PA2084T

Design Polymerics – DP 1010

6. Actuator Connection

Electric and pneumatic actuators are to be connected in accordance with wiring and piping diagrams developed in compliance with applicable codes, ordinances and regulations.

7. Installation and Maintenance

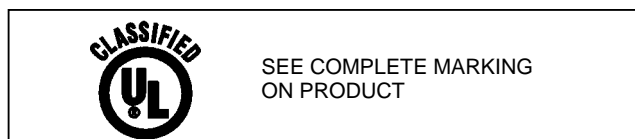
To ensure optimum operation and performance, the damper must be installed so it is round and free from racking. Do not compress or stretch the damper frame into the duct or opening. Lift or handle the damper using sleeve or frame. Do not lift damper using blades or actuators. Each damper should be examined on a regular basis to ensure it is not rusted or blocked. It is recommended the damper be operated (the actuator cycled) at least once every 6 months. Care should be exercised to ensure that such tests are performed safely and do not cause system damage.

Dimensions shown in parentheses () indicate millimeters.

INSTALLATION SUPPLEMENTS

Refer to the appropriate Ruskin installation instruction supplements for special requirements.

- Motor Operated TS150 FireStat System with High Limit Temperature Sensor
- Motor Operated EFL Electric Resettable Link
- PFL Pneumatic Fuse Link



California State Fire Marshal Listing No. 3225-0245:113.

California State Fire Marshal Listing No. 3230-0245:114.

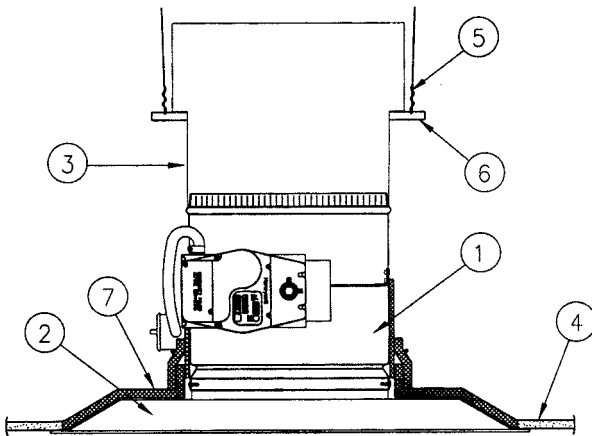


FIGURE 1
Fire Rated Ceiling
with Steel Duct Drop

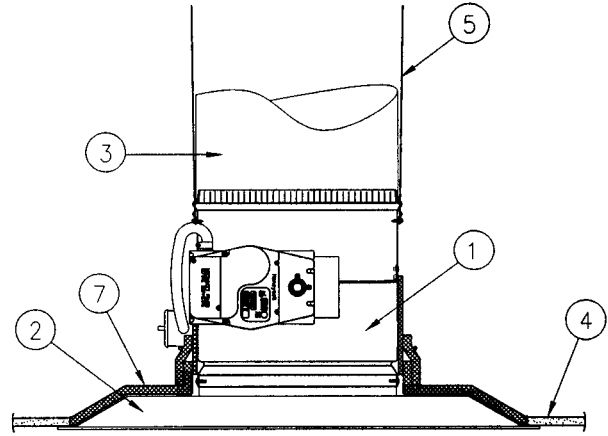


FIGURE 2
Fire Rated Ceiling
with Flex Duct

ITEM	DESCRIPTION
1.	Integral Sleeve Damper Frame
2.	Surface Mount or Lay-In Ceiling Diffuser
3.	Duct (Flexible or Hard)
4.	U.L. Classified fire-rated ceiling. Refer to the UL Fire Resistance Directory for design information.
5.	12 Gage Steel Wire
6.	16 MSG x 1 1/2" Channel
7.	Thermal Blanket Insulation