

MODEL 291

2 Blade • Insulated • For Use in Static Systems • Rectangular Ceiling Radiation Damper

STANDARD MATERIALS AND CONSTRUCTION

- FRAME:** 22-GA galvanized steel; one piece; 2 21/32" standard depth
- BLADES:** 22-GA galvanized steel
- INSULATION:** 1/2" thick gypsum
- FUSIBLE LINK:** 165°F
- SPRING:** Extension type
- FINISH:** Mill

OPTIONS

- 212°F Fusible Link
- Thermal Blanket
- Top Extension (see chart)
- Bottom Extension (see chart)
- Top and Bottom Extension (see chart)

NOTES

1. The larger dimension is always the width, and is parallel to the blades.
2. Dampers are provided exact size in 1" increments.
Deduct 1/4":
 - A. For installation where damper is to be installed inside a steel duct.
 - B. For lay-in installation where damper is to be installed directly into the tee bar grid of the ceiling.
 Do not deduct 1/4":
For surface mount ductless installation where damper is to be installed over the neck of a grille or lay-in diffuser.
3. This ceiling damper is used to provide the required fire and heat radiation protection of HVAC penetrations of Floor Ceiling and Roof-Ceiling Assemblies having a Restrained or Unrestrained Assembly Fire Resistance Ratings of 2 hour or less, in accordance with UL263. Standard Fire Dampers (1 1/2 hr. and 3 hr.) do not provide the necessary heat radiation protection. Ceiling Dampers are also called Ceiling Fire Dampers, Radiation Dampers, and Radiation Shields. See Air Balance's UL-approved Installation Instructions for various installation requirements and procedures. Approved Ceiling Designs are illustrated by Design Number in UL's Fire Resistance Directory.

DAMPER SIZE

| Orientation | Horizontal (Ceiling) Mount Only | |
|-------------|---------------------------------|----------------------------|
| | Min Panel | Max Panel |
| 291 | 11"W x 6"H | 324 sq.in. 18"W 18"H |

| Depths listed are total frame depths. | Heights: 5 3/4" - 10" | Heights: 10 3/4" - 14" | Heights: 14 3/4" - 18" |
|---------------------------------------|--------------------------|---------------------------|---------------------------|
| Top Extension | 9 1/4" | 9 1/4" | 10 3/4" |
| Bottom Extension | 6 1/8" | 6 1/8" | 6 1/8" |
| Top and Bottom Extension | 9 1/4" | 10 3/4" | 12 3/4" |

UNDERWRITERS LABORATORIES INC.®
CLASSIFIED STATIC CEILING DAMPER
FIRE RESISTANCE RATING

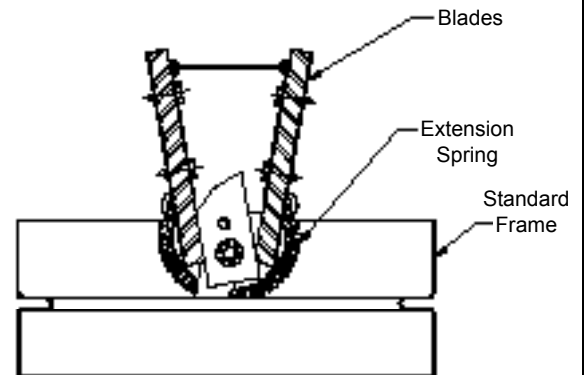
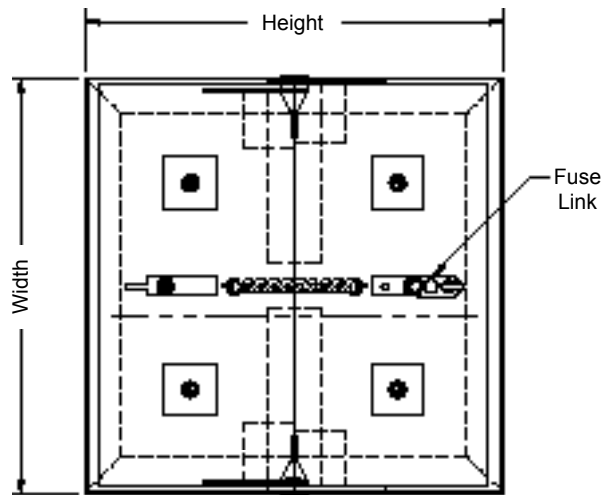
abi air balance

FILE #R11235



This ceiling radiation damper meets the construction and performance requirements of:

- Underwriters Laboratories Inc. Standards 555C
- New York City MEA Listing #110-99-M
- California State Fire marshal Listing #3226-1328:105
- 1 hour Combustible Ceiling Assemblies
- 1 hour and 2 hour Non-Combustible Ceiling Assemblies



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