

Frequently Asked Questions:

Reduction in Horizontal Box Separation in Fire Resistance Rated Walls

1. In what type of construction would this rating apply?

This rating applies where non-metallic sheathed cable is used and walls are constructed of wood studs and gypsum.

2. If the box is marked with a 2-hour wall rating, is this the same thing?

A box that is marked with 2-hour wall rating means that you can install the box in a 2-hour fire resistive wall or walls with less than 2-hour rating. To find out details of the installation, you must read the instructions found in the UL® Fire Resistive Directory or from the UL® card provided by the manufacturer.

The Directory or UL® card describes the following:

- Those boxes suitable for use in the wall by basic model number
- The maximum size opening in square inches
- The maximum openings in total square inches per 100 square feet
- The maximum clearance around the box
- The type construction of the wall assembly – “wood studs and gypsum”
- The wall designs such as “U-300 Series” meaning all wall designs found in the UL Fire Resistive Directory from U-301 through U-365, including those staggered stud designs and separated wall designs
- Horizontal separation when mounted on opposite sides of the wall
- Cover plate material (when limited)

3. What is the maximum size box that can go into the same stud cavity?

The maximum size box that can be mounted in the same stud cavity with another box is a 4 gang box 28 sq. in. Paragraph #1 of the Allied Fire Resistive Card CEYY.R9379 last three lines state that 4300 (28.0 sq. in.) can be mounted in those walls containing 3-1/2" thick 2.5 PCF mineral wool batt insulation or 3-1/2" thick min. 0.70 PCF glass fiber batt insulation. The horizontal separation between outlet and switch boxes on opposite sides of the wall or partition may be reduced to three inches. You could mount a 4 gang on one side and a two gang on the opposite side of the wall. **Note: This is not approved for staggered stud construction.** Paragraph #2 of the card states for those fire resistive wall designs with or without insulation, the maximum size box is a 3 gang 3300, 3303, 9313 (22.0 sq. in.). These boxes can be mounted in all U-300 Series walls with a horizontal separation of three inches when boxes are mounted on opposite sides of the wall. **Note: This does include staggered stud construction.**

4. Does this rating apply to staggered stud configuration?

Yes. U-300 Series walls have both staggered stud designs in addition to separated type walls.

5. Will I still need to use mineral wool or fiberglass insulation?

The wall assembly design dictates the need for insulation. The wall design does not change when penetrated by Allied Moulded outlet boxes.

6. What if I am actually putting double drywall in the middle to help with sound?

If the wall is constructed of wood studs and gypsum board and is a 2-hour or less fire resistive rated, the penetration with an Allied Moulded outlet box will not cause the wall to be derated as long as it is installed according to instructions.

7. Can I put the boxes back to back?

The Fire Resistive card says the boxes must be separated by three inches horizontal separation but not back to back.

8. Do you still have to caulk the knockouts that are penetrated by the wire?

Boxes were tested with non-metallic sheathed cable installed. No caulk is necessary where knockouts are penetrated by the non-metallic sheathed cable.

9. If I accidentally open a knockout I do not need, do I need to caulk it?

The National Electrical Code requires all unused open knockouts to be closed. Allied Moulded's Speed "K" Klamp™ is an accepted means of closing the knockout (documentation available upon request). Open unused knockouts in boxes without Speed "K" Klamps™ would need to be closed.

10. Is there a rating that relates to vertical separation?

Not to our knowledge.

11. Does this apply to ceiling configurations, as well?

The instructions for ceiling penetrations are found on the same documentation as the wall boxes; however, the instructions are different.

12. Does this apply to low voltage devices?

The fire resistive rating is for Allied Moulded boxes penetrating fire resistive walls classified at 2 hours or less. What is placed inside the box is covered by the National Electrical Code and does not affect the fire resistive rating of the box.

13. Which inspector will be enforcing this code? Electrical or Building or Fire?

Minimum horizontal box separation is a requirement of the applicable building code. Generally, the electrical inspector will view the installation first, but final compliance falls on the building inspector.

Please contact our Technical Support Department for clarification on this listing or to address any further questions.

