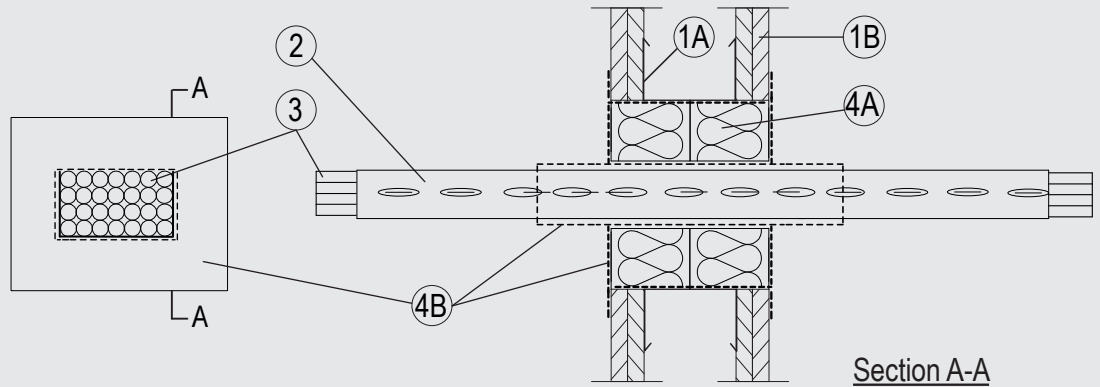


Through-penetration Firestop Systems

System No. W-L-4099

ANSI/UL1479 (ASTM E814)	CAN / ULC S115
F Rating – 2 Hr	F Rating – 2 Hr
T Rating – 1-1/2 Hr	FT Rating – 1-1/2 Hr
	FH Rating – 2 Hr
	FTH Rating – 1-1/2 Hr



1. Wall Assembly

The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs – Steel studs to be min 2-3/4 in. (70 mm) wide spaced max 24 in. (610 mm) OC. Additional studs used to completely frame the opening.
- B. Gypsum Board* – The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory. Max size of framed opening to be 7-7/8 in. (200 mm) high by 22 in. (560 mm) wide.

2. Cable Tray*

Max 4 in. (100 mm) wide by max 2-3/8 in. (60 mm) deep open-perforated or solid sheet cable tray with side rails formed of min 0.05 in. (1.5 mm) thick steel. Cable trays to be rigidly supported on both sides of the wall assembly. Annular space between tray and periphery of opening to be Min. 2 in. (50 mm) and Max. 2-3/4 (70 mm).

3. Cables

Aggregate cross-sectional area of cables in cable tray not to exceed 41.94 percent of the cross-sectional area of the cable tray based on a max 2-5/8 in. (68 mm) cable loading depth within the tray. Cable bundles of different types shall be separated by min. 1 in. (25 mm). Any combination of the following types and sizes of cables may be used:

- A. Max 3/C 185 mm diam (or smaller), copper conductor cable with PVC insulation and jacket.
- B. Max 5/C No. 15 AWG (1.5 mm) diam (or smaller), copper conductor cable with EPR insulation and Rubber jacket.
- C. Max 5/C No. 15 AWG (1.5 mm) diam (or smaller), copper conductor cable with XPLE insulation and EVA jacket.
- D. Max 20/C No. 19 AWG (0.6 mm) diam (or smaller), copper conductor telecommunication cables PE jacket.
- E. Max 5/C No. 15 AWG (1.5 mm) diam (or smaller), copper conductor cable with PVC insulation and PVC jacket.

4. Firestop System

The Firestop System shall consist of the following:

- A. Packing Material – Nom. 2-3/8 in. (60 mm) thick mineral wool boards min. 3.7 pcf (60 kg/m³) firmly packed into the opening of the wall as a permanent form. Packing material to be installed flush with both surfaces of wall.
- B. Fill, Void or Cavity Material* – Min. 1/16 in. (2 mm) dry film thickness* to be applied, coating the inside surface of the opening before installation of the packing material and over the full surface of the mineral wool boards, and overlapping onto the wall by min. 3/4 in. (20 mm). Min. 1/32 in. (1 mm) dry film thickness to be applied over the surface of the cables and tray to a minimum length of 7-7/8 in. (200 mm) from both faces of the board.

Flamro Brandschutz-Systeme GmbH – FLAMMOTECT-A

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