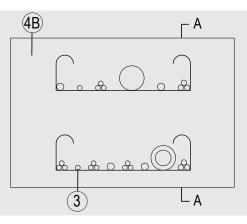


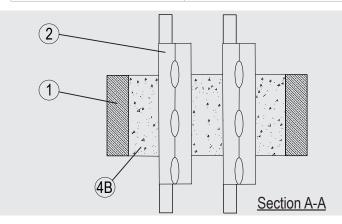


Through-penetration Firestop Systems

System No. F-A-4010

ANSI/UL14/9 (ASTM E814)	CAN / ULC 5115
F Rating — 3 Hr	F Rating – 3 Hr
T Rating — 1 Hr	FT Rating - 1 Hr
	FH Rating – 3 Hr
	FTH Rating – 1 Hr





1. Floor Assembly

Lightweight or normal weight (100-150 pcf or $1600-2400 \text{ kg/m}^3$) concrete, min thickness of solid concrete floor assembly is 4-1/2 in. (115 mm). Opening shall be rectangular with max dimensions of 23-1/2 in. (600 mm) by 15-3/4 in. (400 mm).

2.Cable Trav^{*}

Max two, nom 12 in. (300 mm) wide or smaller 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. The annular space between the cables trays and the periphery of the opening shall be a min of 2 in. (51 mm) to a max 6 in. (152 mm). The cable trays to space a nom 6-1/2 in. (165 mm) apart. Cable trays to be rigidly supported on both sides of the floor assembly.

3.Cables

Aggregate cross-sectional area of cables in cable tray not to exceed 25 percent of the cross-sectional area of the cable tray based on a max 2-3/4 in. (69 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 4/C 185 mm diam (or smaller), copper conductor cable with rubber (EPR) insulation and polyolefin (PO) 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.
- F. Max 1/C 2-1/8 in. (55 mm) diam (or smaller), aluminium conductor cable with PE insulation and jacket.
- G. Max 5/C No. 15 AWG (1.5 mm) diameter (or smaller), copper conductor cable with XPLE insulation and EVA jacket.
- H. Max 5/C No. 15 AWG (1.5 mm) diameter (or smaller), copper conductor cable with PVC insulation and PVC jacket.
- I. Max 1/C 2-1/8 in. (55.2 mm) diameter (or smaller), copper conductor cable with XLPE insulation and PVC jacket.

4. Firestop System

The Firestop System shall consist of the following:

- A. Forms Boards cut to fit the contour of the penetrating items and fastened to the underside of the floor to prevent the leakage of fill material (Item 4B) while in a liquid state. Forms to be removed after the fill material cures.
- B. Fill, Void or Cavity Material* Mortar Min 4-1/2 in. (115 mm) cast into the annular space between the cable tray, cables and the periphery of the opening, flush with both surfaces of floor. Mortar to be mixed with water in accordance with the manufacturer's installation instructions.

Flamro Brandschutz-Systeme GmbH — NOVASIT BM

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