

## System No. 50 FHIT.50 Electrical Circuit Integrity Systems

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### Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
  - Authorities Having Jurisdiction should be consulted before construction.
  - Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
  - When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
  - Only products which bear UL's Mark are considered Certified.
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### FHIT - Electrical Circuit Integrity Systems

[See General Information for Electrical Circuit Integrity Systems](#)

## System No. 50

April 16, 2018

**Fire Rating - 1 Hr. and 2 Hr. (See items 2 and 5)**

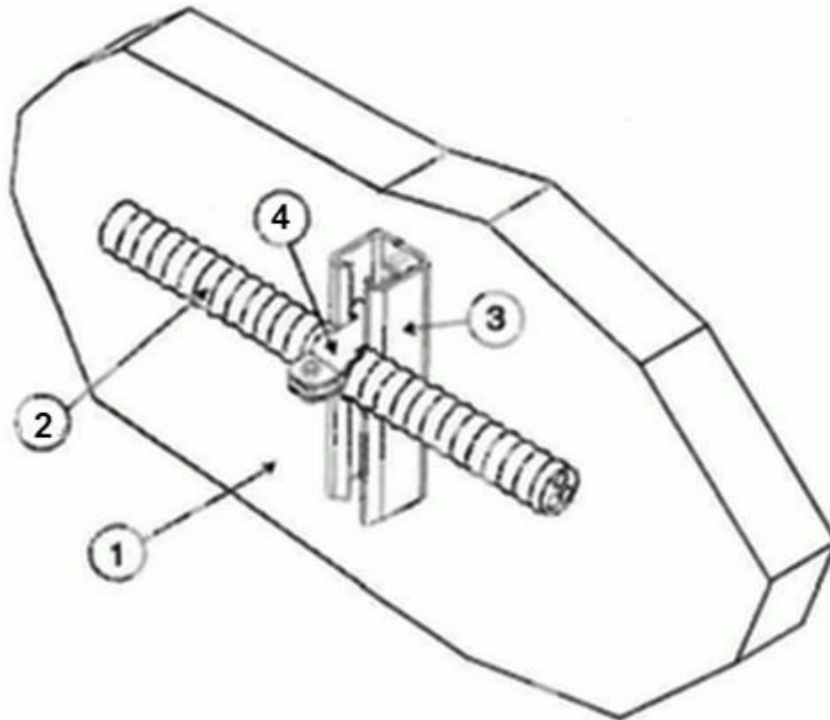


Fig. 1  
Two-piece Single-bolt Pipe Clamp

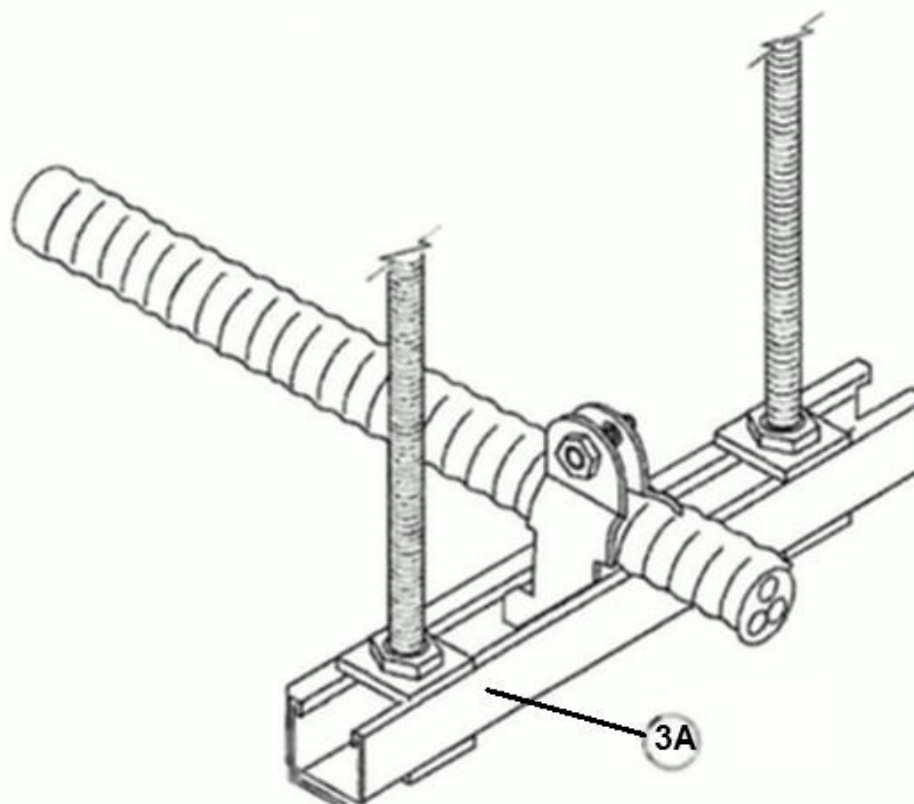


Fig. 2  
Steel Strut Trapeze

1. **Wall or Floor Assembly\*** — Minimum 2 hour fire rated concrete or masonry wall or concrete floor. Opening in wall or floor through which cable or cable tray passes is to be sized to closely follow the contour of the cable or cable tray. Through opening in wall or floor to be firestopped using a compatible firestop system. See **Through-Penetration Firestop Systems** (Guide XHEZ) category for presently Classified firestop systems.

2. **Fire Resistive Cables\*** — The 2 hour fire rating applies to cable without splices passing completely through a fire zone and terminating a minimum of 12 inches beyond the fire rated wall or floor bounding the fire zone. The cables as identified below may be installed in the horizontal or vertical orientations.

**DRAKA CABLETEQ USA INC** — — Type MC (metal clad) Lifeline Brand.

To be installed as described herein and in accordance with the manufacturer's installation instructions (Technical Information Sheet # 400) dated April 3, 2018, File R19359.

3. **Supports** — (Figure 1) Min 12 gauge, by 1-1/2 in. wide or 1-5/8 in wide, painted or unpainted, slotted steel channels with hemmed flange edges. Channel bottom with or without holes. Lengths of slotted steel channels 5 ft and less shall be secured to the wall or floor with a min of two 1/4 in. diameter (or larger) by 2-1/4 in. min long concrete screws, or 1/4 in. diameter (or larger) by 1-3/4 in. long min steel masonry anchors. One screw or anchor to be located at each end of the slotted steel channel. Lengths of slotted steel channel in excess of 5 ft require a min of three screws or anchors, one at each end of the channel and one centrally located within the length of the channel. The supports shall be spaced a maximum of 4 ft. OC.

3A. **Trapeze-type Supports** — (Figure 2) The MC cable(s) shall be installed on/from trapeze-type supports by item 4. The trapeze-type supports shall be secured from the surface of the floor. The supports shall be spaced a maximum of 4 ft. OC.

4. **Clamps** — Steel 1-1/4 in. wide two-piece single-bolt pipe clamps. Size to correspond with the outside diameter of the cable and as follows: Trade size 1/2 - 2 in., min 14-gauge; Trade size 2-1/2 in. min 12-gauge; Trade size 3 in. and larger, min 11-gauge.

5. **Splice (Optional Not Shown)** — 1 Hr. Rating at 480V line to line (277V line to ground). 14AWG - 4/0AWG MC cable (s) in the horizontal or vertical orientation may be installed with terminal block splices. The following components are required: \*Selco model NE4X with suffix BP stainless steel type NEMA 4X cutout box, \*\*Remke model RTKSS type MC cable connectors, \*Thomas & Betts Blackburn copper compression connectors, Draka Lifeline MC Splice Kit. Refer to the manufacturer's installation instructions (Technical Information Sheet # 402) April 3, 2018.

\*Bearing the UL Classification Mark

\*\* Bearing the Certification Mark of CSA

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