



BreathSaver® XW

The Most Effective & Reliable
Cable Fire Protection Conduit System

BreathSaver® XW rigid non-metallic phenolic conduit is UL 2196 2-Hour Listed as part of FHIT 25C for both vertical and horizontal installations.

Used in conjunction with Lifeline® RHW-2 Fire Resistive Cables (bearing the UL Classification Mark) – the hourly fire rating applies to cable systems passing completely through a fire zone and terminating a minimum of 12 inches beyond the fire rated wall or floor bounding the fire zones.

High-rise Commercial Buildings • Hospitals

- Firepumps
- Emergency Feeder Cables
- Ventilating Fans
- Exit Lighting
- Elevators

Tunnels • Subways • Underground Utilities

- Vent Shafts
- Emergency Circuits
- Ventilating Fans
- Emergency Lighting



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NATIONAL ELECTRICAL CODE - ARTICLE 728

Fire Resistive Cable Systems

2-Hour Fire rated Certified cables or systems per UL 2196

This article covers the installation of fire-resistive conductors, and other system components used for survivability of critical circuits to ensure continued operation during a specified time under fire conditions as required in the NEC.

728.3 Other Articles Wherever the requirements of other articles of the NEC and Article 728 differ, the requirements of Article 728 shall apply.

Acceptable products

MI - Minerally Insulated cables

MC - Metal clad cables

Specially design polymer jacketed cables in conduit - **Dry and/or Wet Location Listed**

Our Certified System (XW BreathSaver® Lifeline® RHW-2)

Installations

8, 6, 4, 3, 2, 1, 1/0, 2/0, 3/0, 4/0, 250, 300, 350, 400, 500, 600 & 750

FHIT 25C	
Horizontal	Vertical
FHIT 25C BreathSaver®	FHIT 25C BreathSaver®
MC	MC
MI	MI

Installation methods

As defined in the Certification - FHIT document or as defined by the Authority Having Jurisdiction (AHJ) *

** AHJ ruling may result in UL underwriting being cancelled*

Useful Reminders

Art. 728.4 General. Fire-resistive cables, fire resistive conductors and components shall be tested and listed as a complete system, shall be designated for use in a specific fire-rated system, and shall not be interchangeable between systems.

Art. 728.5 Installations. Parag. C) The raceway fill for each system shall comply with the listing requirement for the system and shall not be greater than the fill permitted in Table 1, Chapter 9.

Competitive Environment - Pipe & Wire Installation

FHIT 130 Champion Fiberglass / RSCC

- **Not Acceptable as it is Listed for 1 hour only**
- **Limited to 3/4", 1", 1 1/4" and 1 1/2" conduit**
- Wet Locations Listed

Useful Reminders

- Distance in between support - As defined in FHIT (Certification)
- 5 feet of center
- Wire fill - As defined in FHIT (Certification)
- Max. 38%

FHIT 28E Champion Fiberglass / Radix

- **Acceptable since Dry Locations Listed**
- RHH construction - regular building wire

Useful Reminders

- Distance in between support - As defined in FHIT (Certification)
- 4 feet of center
- Wire fill - As defined in FHIT (Certification)
- See FHIT Table Article 2

NFPA 502

Standard for Road, Tunnels, Bridges, and Limited Access Highways

2-Hour Fire rated Certified cables or systems per UL 2196

Art. 12.1.2 Fire-resistive cables shall be approved or listed as having been tested to the normal (ASTM E119), time-temperature curve in accordance with ANSI/UL 2196 and shall comply with the requirements for no less than a 2 hour fire resistive rating described in the ANSI / UL 2196. Wet Locations Listing is a requirement for cables.

Typical installations

Emergency lighting · Emergency communication · Fire alarm and detection · Tunnel closure and traffic control · Tunnel drainage · Closed-circuit television or video · Exit signs · Emergency ventilation · Fire fighting

Acceptable products

MI - Minerally Insulated cables

MC - Metal clad cables

Specially design polymer jacketed cables in conduit - Wet Location Listed

Our Certified System (XW BreathSaver® Lifeline® RHW-2)

Installations

8, 6, 4, 3, 2, 1, 1/0, 2/0, 3/0, 4/0, 250, 300, 350, 400, 500, 600 & 750

FHIT 25C	
Horizontal	Vertical
FHIT 25C BreathSaver®	FHIT 25C BreathSaver®
MC	MC
MI	MI

Installation methods

As defined in the Certification - FHIT document or as defined by the Authority Having Jurisdiction (AHJ) *

** AHJ ruling may result in UL underwriting being cancelled*

Useful Reminders

FHIT 25C

Distance in between support - As defined in FHIT (Certification): 5 feet of center
Wire fill - As defined in FHIT (Certification): See FHIT Table Article 2

Competitive Environment - Pipe & Wire Installation

FHIT 130 Champion Fiberglass / RSCC

- **Not Acceptable as it is Listed for 1 hour only**
- **Limited to 3/4", 1", 1 1/4" and 1 1/2" conduit**
- Wet Locations Listed

Useful Reminders

- Distance in between support - As defined in FHIT (Certification)
- 5 feet of center
- Wire fill - As defined in FHIT (Certification)
- Max. 38%

FHIT 28E Champion Fiberglass / Radix

- **Not Acceptable since not Wet Locations Listed**
- RHH construction - regular building wire

Useful Reminders

- Distance in between support - As defined in FHIT (Certification)
- 4 feet of center
- Wire fill - As defined in FHIT (Certification)
- See FHIT Table Article 2

NFPA 130

Standard for Fixed Guideway Transit and Passenger Rail Systems

1-Hour Fire rated Certified cables or systems per UL 2196

Art. 12.5.1 Fire-resistive cables shall be certified or listed as having been tested to the normal (ASTM E1919) time-temperature curve in accordance with ANSI / UL 2196

Art. 12.5.2 The cables shall comply with the requirements for no less than a 1-hour fire

resistance rating when tested in accordance with ANSI / UL 2196

Wet Locations Listing is a requirement for cables.

Typical installations

Emergency power · Emergency ventilation · Emergency lighting · Emergency communications circuits

Acceptable products

MI - Minerally Insulated cables

MC - Metal clad cables

Specially design polymer jacketed cables in conduit - Wet Location Listed

Our Certified System (XW BreathSaver® Lifeline® RHW-2)

Installations

8, 6, 4, 3, 2, 1, 1/0, 2/0, 3/0, 4/0, 250, 300, 350, 400, 500, 600 & 750 | 10 & 12 (FHIT.25D) 1-hr rated

FHIT 25C & FHIT 25D	
Horizontal	Vertical
FHIT 25C BreathSaver®	FHIT 25C BreathSaver®
FHIT 25D BreathSaver®	FHIT 25D BreathSaver®
MC	MC
MI	MI

Installation methods

As defined in the Certification - FHIT document or as defined by the Authority Having Jurisdiction (AHJ) *

** AHJ ruling may result in UL underwriting being cancelled*

Useful Reminders

FHIT 25C

Distance in between support - As defined in FHIT (Certification): 5 feet of center
Wire fill - As defined in FHIT (Certification): See FHIT Table Article 2

FHIT 25D

Distance in between support - As defined in FHIT (Certification): 5 feet of center
Wire fill - As defined in FHIT (Certification): 38% Maximum

Competitive Environment - Pipe & Wire Installation

FHIT 130 Champion Fiberglass / RSCC

- Acceptable as it is Listed for 1 hour only
- **Limited to 3/4", 1", 1 1/4" and 1 1/2" conduit**
- Wet Locations Listed

Useful Reminders

- Distance in between support - As defined in FHIT (Certification)
- 5 feet of center
- Wire fill - As defined in FHIT (Certification)
- Max. 38%

FHIT 28E Champion Fiberglass / Radix

- **Not Acceptable since not Wet Locations Listed**
- RHH construction - regular building wire

Useful Reminders

- Distance in between support - As defined in FHIT (Certification)
- 4 feet of center
- Wire fill - As defined in FHIT (Certification)
- See FHIT Table Article 2