

System 1850 MI Cable

Design Guide



PYROTENAX

CONNECT AND PROTECT

When the emergency systems in high-rise buildings, hospitals, airports, and tunnels do not operate properly, fires can be costly and deadly. nVent PYROTENAX Mineral Insulated (MI) wiring cable protects and ensures the safe operation of critical emergency circuits like fire pumps, emergency generators, firefighters' elevators and smoke extraction fans. North American manufactured nVent PYROTENAX fire-rated cables meet all US NEC and Canadian CSA codes and will operate for at least 2 hours under fire conditions.

nVent PYROTENAX Mineral Insulated (MI) wiring provides superior protection versus typical concrete encasement and gypsum board enclosures using a fraction of the space. It is ideal for retrofits of electrical power feeders in commercial buildings where space is limited. nVent PYROTENAX MI wiring cables deliver more power using less space due to their superior Free Air Rating which allows you to put your building space toward more profitable usage.

HOW MUCH SPACE IS REQUIRED TO PROVIDE A 4000 AMP CIRCUIT? CROSS SECTIONALLY AND OVER 100 LINEAR FEET?

Space Consumed – Area and Volume



Product	Area (ft ²)	Volume (ft ³)	More (%)
MI (350 kcmil)	1.27	127	—
THHN (600 kcmil)	3.45	345	172%

nVent PYROTENAX MI cable system offers space savings and superior protection.



GOALS

Educate the construction industry of the many different potential uses of nVent PYROTENAX wiring solutions. Educate engineers/architects/contractors to identify projects where these systems might be a good solution.



AUDIENCE

Engineers, Architects, Contractors, AHJs, Inspectors, and distributors looking for a proven and reliable fire-rated and space saving wiring solution alternative to concrete encasement and other traditional power wiring solutions.



APPLICATIONS

Celebrating more than 70 years, PYROTENAX System 1850 MI is the industry's most advanced and best accepted line of fire-rated and space saving wiring solutions with a complete lineup of listed cables components and accessories.

WHAT'S IN IT FOR THEM

1 COMPLETE SYSTEM

Our proven solutions are manufactured in North America for the North American market and are fully certified by North American Approval agencies. We provide systems that include a lifetime warranty and do not require annual maintenance and/or accessibility.



2 SAFETY BENEFITS

The totally inorganic construction of System 1850 MI cable allows for an environmentally clean electrical cable that does not burn, produce smoke, or contribute fuel when exposed to fire conditions.

3 ENGINEERING & DESIGN SUPPORT

System 1850 solutions are as easy to design as many other standard building wires. They require less space than other products and that further simplifies design. We also have experienced experts available who can optimize projects for timing, installation, and total installed cost.

4 VERSATILE

System 1850 solutions are ideal for all critical life safety circuits fed by the emergency power supply including: fire pumps, smoke extraction, fans, pressurization fans, fire alarm systems, emergency lighting, and emergency elevators. It's also ideal for the retrofitting of power feeders in locations where space is limited.

STEPS TO SUCCESS



Download the Commercial Fire-Rated Wiring Brochure (H57578)

[CLICK HERE →](#)

Download the System 1850 Fire-Rated Cable System Design Guide (H57573)

[CLICK HERE →](#)

Download the System 1850 presentation:

[CLICK HERE →](#)

Download System 1850 Space Savings Brochure (H60802)

[CLICK HERE →](#)

Download Canadian Specifications (H57824)

[CLICK HERE →](#)

Download US Specifications (H57821)

[CLICK HERE →](#)

Download the Space Saving Cable System Design Guide (H57574)

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MasterSpec – Download MasterSpec Specification and select nVent PYROTENAX as Basis of Design

[CLICK HERE →](#)



Watch the nVent PYROTENAX System 1850 Videos

[CLICK HERE →](#)

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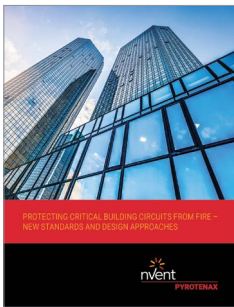


Contact your local nVent PYROTENAX Rep for more info about:

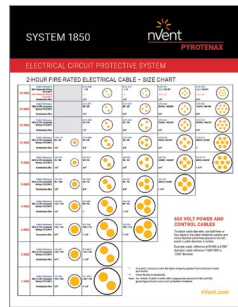
- Recommended stock
- Pricing
- Training modules

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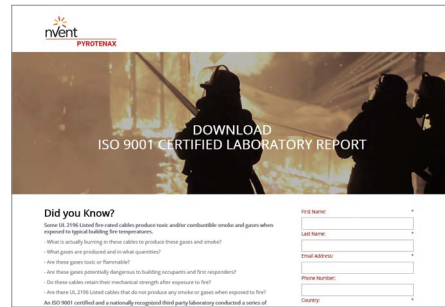
TOOLS & RESOURCES



Construction Methods White Paper (H60239)



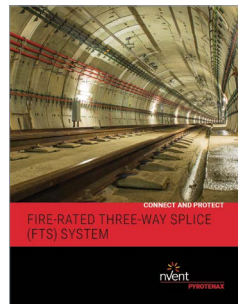
System 1850 MI Size Chart (H58874)



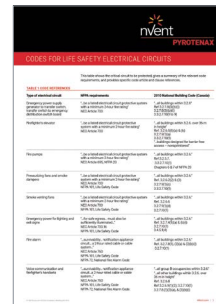
Beyond UL 2196 Landing Page



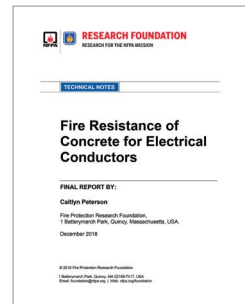
Fire-Rated Wiring Movie Poster (H60076)



Fire-Rated Three-Way Splice (FTS) Sales Brochure (H60221)



Codes for Life Safety Electrical Circuits (H57618)



NFPA Technical Note "Fire Resistance of Concrete for Electrical Conductors"



Our powerful portfolio of brands:

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