

CONNECT AND PROTECT

nVent PYROTENAX UL Listed System 1850 Fire Rated Wiring with FTS Three-Way Splices is in Service at a Major North American Subway System

Essential Performance for Infrastructure



PROJECT DETAILS


Location:

Major North American Subway System Expansion


Applications:

Fire Rated Wiring for Tunnel and Underground Station
Emergency Lighting Systems


Contract scope:

Design and Product Supply


Technology:

nVent PYROTENAX System 1850 Fire Rated Wiring
System Solution


Start date:

2020


Completion date:

2024

KEY CHALLENGES

Expansion of a large North American underground subway system is underway. A major concern for stakeholders of subway trains, tunnels and underground stations is that passengers and employees can safely evacuate in the event of a fire or other service interruptions. Reliable emergency lighting is absolutely essential to evacuation operations. Acknowledging that an emergency lighting system is only as good as its weakest link, careful attention must be paid to the wiring system that supplies electricity to the emergency lighting. Emergency lighting wiring systems must comply with System listings UL2196 in U.S., and ULC S139 in Canada. The wiring cables, plus the necessary system components such as splices, Tee-Splices and power connection kits must be listed.

SOLUTION

The Transit Authority's Design and Specification team evaluated potential safe options and realized only nVent PYROTENAX offered all of the System Approved wiring, splices, three way splices and connections kits their project required. The Transit Authority's Engineering Design and Build department, with input from nVent PYROTENAX design experts, designed an emergency lighting wiring system that utilized PYROTENAX System 1850 UL2196 Listed Mineral Insulated (MI) wiring, splices, FTS 3-way splices and components. PYROTENAX MI cables have several unique properties that were critically important to the specifiers. PYROTENAX MI cables produce no dangerous and combustible gasses in the event of fire and System 1850 cables also have industry leading Ampacity; the ability to carry maximum current for a given wire gauge. Most importantly, PYROTENAX's Listed FTS three way splice system, two way splices, and other Listed components allowed for a complete and fully Listed and efficient emergency wiring solution. PYROTENAX System 1850's Lifetime warranty was also an important factor in their decision making.

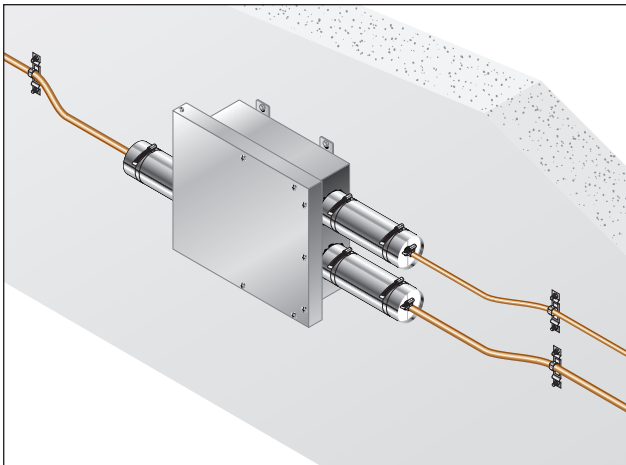
PROJECT FACTS

To meet the essential performance needs of this world class Subway Expansion, our nVent PYROTENAX wiring solution included:

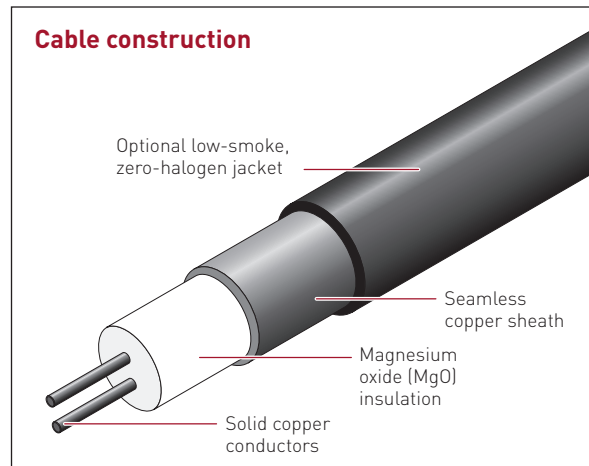
- Engineering design experts providing optimized design and support using the Quick Voltage Drop Calculator
- nVent PYROTENAX System 1850 Fire Rated Wiring (Approx 10,000 ft, 3000 Meters)
- nVent PYROTENAX FTS Three-way Splices (88)

BENEFITS

We met the customer's essential performance design objectives for safe and reliable emergency lighting wiring for their underground stations and tunnels with our optimized design and proven Listed System 1850 wiring systems. Our solution has been in service for more than two years. nVent was awarded the emergency lighting wiring system engineering and product supply for this project based upon many other successful PYROTENAX transit projects in the region that have been in service for decades. We look forward to working closely with this team and other transit authorities on additional expansion projects planned for the near future.



PYROTENAX FTS Three Way Splice



PYROTENAX System 1850 MI Cable

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