



## Case Studies

# More Powerful than a Locomotive

Extremely Durable Cables for Automated Transit Rail Car Doors



### Background

Customer manufactures automated transit rail car doors which incorporate power, control and signal cables. Doors open and close hundreds of times a day and thousands of times a week.

### Challenge

Multiple cables and loose wires are placed inside cable tracks where friction and entanglement cause performance failure to each. Customer would like to isolate wires from cables or somehow simplify into less cables.

### Solution

Cicoil offered continuous motion cable that was able to incorporate all wires and individual cables into multiple flat cables. The flat profile cable designs reduced the overall space taken up by the separate components within the large cable track.

### Benefits of Cicoil Flat Cable

- Unique flat cables last tens of millions of cycles in flexing applications, resulting in elimination of downtime.
- Durable One-Piece Construction withstands mechanical stress, shock, impact, vibration and high-speed track travel;
- The Ultra-pure jacket offers 100% transparency, is self-healing and will not deform or prematurely age due to prolonged
- Continuous flex flat cables are so durable they can help reduce the size of a cable track and in lengths less than 3 feet may
- Halogen Free, Flame Retardant and Self Extinguishing: LSZH and HFFR cables.
- Proprietary Flexx-Sil™ Rubber Jacket passes UL/CSA VW-1, FT 1 & FT 2, UL 94V-0, FAA 25.853 flame testing. In addition, the cable jacket meets HL1 and HL2 levels, Test T- 09-01, Test T-09-03, Test T13 and Test T15 of EN 45545-2; IEC 60754 part 1 & part 2.

### Results

Replacing multiple, unorganized wires & cables, with organized flat cables allowed customer to reduce the size of a cable track in one application and eliminating the need for a track in another application. The Cicoil cable solutions helped in reducing costs, increasing product reliability & operation uptime.

*“We needed to reduce the size of the application space available to the cable tracks and were also experiencing failure of the cable components due to long term flexing and exposure to vibration. Cicoil was able to provide a solution as well as help us to improve our overall design reduction concept.”*

Speak with one of our Flexible Cable Solutions Specialists to discuss your inflexible application requirements. Our team of experts will help with all of your cabling, assembly, and value-added needs.

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