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**Press release**

## **Nexans cables ensure safety, performance and comfort for Bombardier's Francilien suburban trains**

*25,000 km of Nexans specialized FLAMEX® rail cable solutions will support power, control and data applications on new suburban trains destined for SNCF services in Greater Paris*

**Paris, September 21, 2010** – Nexans, the worldwide leader in the cable industry, is supplying around 25,000 km of its specialized FLAMEX® rail cable solutions for the 172 state-of-the-art Francilien suburban trains currently being produced by Bombardier for SNCF and the Ile-de-France Region which will operate in Greater Paris.

The Francilien suburban train, previously known as the Nouvelle Automotrice Transilien (NAT), is a single-deck design – based on short, wide car bodies with a single door on each side – that can move as many people as double-deck trains of equal length. The Francilien offers safety, efficiency and low maintenance, in addition to comfort, travel information and entertainment – much of it achieved by Nexans high-performance cabling solutions.

172 Francilien trainsets are now in production: 77 eight-car trains for routes serving Paris Nord, 55 seven-car trains for Saint-Lazare, and 40 eight car trains for Paris Est. The first trains entered service in the Paris region in December 2009.

### **Design challenges**

In designing the Francilien concept, Bombardier had to meet SNCF's stringent requirements in terms of safety, reliability, maintainability and life cycle costs. This called for the redesign of critical elements like doors (so that ease of access could be assured and breakdowns avoided), back-up controls to allow trains to be easily reconfigured in the event of component failure, and secure data transmission between trains and control centres for efficient train management. A major development that places further demands on the cabling systems is the comprehensive IP-based communications package, with four LED screens in each car displaying travel and entertainment information and dynamic route maps. In addition, passengers can watch digital TV with sound transmitted by special earpieces.

### **FLAMEX® cable solutions for safety, performance and comfort**

The Francilien project has drawn on Nexans' full range of FLAMEX® cable solutions, including power cables for the electric motors; high-voltage connections between the pantograph and the transformer; low-voltage power supply for cars; control cables, harnesses, jumpers, and data cables throughout the trainset to support everything from train control to surveillance, video and Internet. Low Fire Hazard (LFH) cables ensure low toxicity and minimal smoke to enhance safety, while all cables (including data) meet SNCF's latest classification standards.

## **A complete rethink in suburban train cable architecture**

Each Francilien car has its own roof-mounted air-conditioning unit, and for the first time heating is incorporated in the floor, which keeps the corridor dry and frees up space under the seats. This open train interior called for a complete rethink and redesign of the cable architecture. For example, cabinets are now located at each end of the train instead of between cars. Cables are often pre-installed on a large frame for easy attachment to the roof of the car, with pre-connections ready to be plugged into various components.

As part of the rethink of the cable architecture, Nexans applied a value engineering approach to ensure that optimum use was made of the available cable cross-section - so that the same level of service could be provided with less cable. Attention was also paid to standardization of the main cable runners for easier and more efficient installation.

*"Our success in winning this important contract for the new Paris suburban trains is based on both the technical excellence of our FLAMEX® cable solutions and our proven capability to provide a total service for rolling stock projects, including design, development, value engineering, bulk manufacturing and supply chain management," says Stéphane Mortelette, Nexans Global Segment Manager for Rolling Stock. "The result is that we are enabling Bombardier to equip its Francilien trainsets with cables that are lighter, safer, more energy-efficient and convenient for maintenance operations and future upgrades."*

The Nexans cables will be manufactured in three plants located in France and in Germany and be delivered until 2015.

## **About Nexans**

With energy as the basis of its development, Nexans, the worldwide leader in the cable industry, offers an extensive range of cables and cabling systems. The Group is a global player in the infrastructure, industry, building and Local Area Network markets. Nexans addresses a series of market segments: from energy, transport and telecom networks to shipbuilding, oil and gas, nuclear power, automotives, electronics, aeronautics, material handling and automation.

Nexans is a responsible industrial company that regards sustainable development as integral to its global and operational strategy. Continuous innovation in products, solutions and services, employee development and engagement, and the introduction of safe industrial processes with limited environmental impact are among the key initiatives that place Nexans at the core of a sustainable future.

With an industrial presence in 39 countries and commercial activities worldwide, Nexans employs 22,700 people and had sales in 2009 of 5 billion euros. Nexans is listed on NYSE Euronext Paris, compartment A. For more information, please consult [www.nexans.com](http://www.nexans.com)

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