



**LV, MV and HV energy and feeder cables
for reliable and continuous energy**

Nexans, worldwide leader in cables and cabling systems

As a global expert in cables and cabling systems, Nexans brings an extensive range of advanced copper and optical fiber solutions to three key sectors of the economy: **infrastructure, industry and buildings.**

Its cables and systems can be found in every area of people's lives, from rolling stock and railway infrastructure to telecommunications and energy networks, aeronautics, aerospace, automobiles,

petrochemicals, windmills, medical applications, etc.

The presence of Nexans in over 65 countries gives it a full mastery of both national and international standards. Its 10 Competence Centers and International Research Center work closely with customers to constantly improve its standard range of products and technologies and to develop customized, country and industry-specific solutions.



Energy and feeder cables to assure your infrastructure growth

The efficiency of any train system is dependent on an infrastructure which provides reliable energy for rolling stock, and data and telecommunications for train management and control. Whether for a tramway, subway or high-speed train, operators are anxious to streamline costs, future-proof their systems, upgrade customer services, and assure a high level of public safety.

Nexans produces a wide range of energy and telecommunication cables and components specifically adapted to the various rail environments, many with enhanced fire-performance characteristics. We also give expert advice about network architecture and evolving standards, and can provide customized engineering, installation and maintenance worldwide.

Today, like you, most of global players in railroad infrastructure count upon wide product diversity from a single cable supplier, since even a relatively small infrastructure (e.g. a new metro line) incorporates numerous low, medium and high-voltage cables for powering everything from lights to locomotives. At the same time, special concerns, like fire safety in public places, require specific, customized solutions. Also, you expect cable manufacturers to merge various energy/data functions in a limited space.

To help you achieve this, Nexans offers secure and reliable **energy and feeder cables for LV, MV and HV.**

Energy and feeder cables
for low, medium, and
high-voltage power needs



LV, MV and HV energy and feeder cables: standard and customized power solutions for global players



Nexans handles both sides of the energy equation: standardization for infrastructure interoperability, and customization for special railway needs.

In important turnkey projects, Nexans aims to supply the complete range of cables and services. We pioneered halogen-free, flame retardant (HFFR) cables according to the highest IEC 60 332 specifications and produce all subgroups of it. And we developed new Right-of-Way (ROW) solutions that makes it possible to combine fiber optics and energy for train control, communications, data, etc.

This Nexans solution gives you:

- **One-stop shopping** for virtually all standard power infrastructure cables, with customized

expertise available for special customer needs or challenges

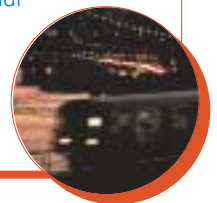
- **Unsurpassed conductor quality** based on permanent product quality control and ongoing research on designs and new copper-alloys
- **Proven expertise** in all types of railway power systems: mainline, high-speed, light rail, metros, tramways, and people movers
- **Secure cable types** for reliable and continuous energy
- **Advanced sheathing techniques** for the railway environment to protect against heat, oil, weather, rodents, human threats, etc.
- **Enhanced strength and durability** due to double steel tape armoring techniques
- **Innovative energy technologies**, like the graphited outer sheath which makes it possible to measure key factors after installation: faults, leakage, short-circuits



Nexans energizes metro substations for Mexico City and Singapore

Beating out 3 local competitors, Nexans supplied 1,500 km of MV cables for Mexico City's Linea 4.





Specific requirements were met, including conformity to American specifications. Nexans mobilized its global manufacturing resources, drawing on plants in Norway and Turkey to produce the single-core HFFR cables and deliver them on short deadlines. Similar LV and MV cables were delivered to Alstom for the Singapore's new metro extension.



Power transport and distribution 50 Hz

Product families	Product family names	Standards / Specs
 <p>High voltage cables</p> <p>XAluWT GAluWT</p>	<p>XAluWT</p> <p>GAluWT</p> <p>XCuWT</p> <p>GCuWT</p>	<ul style="list-style-type: none"> • IEC 60840 • IEC 60840 • IEC 60840 • IEC 60840
 <p>Medium voltage cables</p> <p>XKDT / GKT</p>	<p>XKDT</p> <p>GKT</p>	<ul style="list-style-type: none"> • Cenelec HD 620 • Cenelec HD 620
 <p>Low voltage cables</p> <p>PYROLYON</p>	<p>Halogen free-Fire retardant</p> <p>LYONOTOX</p> <p>Halogen free-Fire retardant</p> <p>K25</p> <p>Halogen free-Fire resistant</p> <p>PYROLYON</p> <p>Halogen free-Fire resistant</p> <p>PYROLYON E</p> <p>Halogen free-Fire resistant</p> <p>PYROLYON TEL</p> <p>Halogen free-Fire resistant</p> <p>K27</p>	<ul style="list-style-type: none"> • NF C32323 • NF F55625 • NF C32310 • BS • NF C32310

Power transport and distribution 16.67 Hz

Product families	Product family names	Standards / Specs
 High voltage cables 	XAluWT GAluWT XCuWT GCuWT	<ul style="list-style-type: none">• IEC 60840• IEC 60840• IEC 60840• IEC 60840
 Medium voltage cables 	XKDT GKT XDCuT	<ul style="list-style-type: none">• Cenelec HD 620 / SBB 3001.72.1000• Cenelec HD 620 / SBB 3001.72.1000• Cenelec HD 620



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