



**Standard and thin-wall LV control cables
for easy installation,
fire-protection and top performance**

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.



Standard and thin-wall LV control cables from Nexans, a wide range of products covering diverse railway standards

The rolling stock industry is now at a crucial point in its development. New challenges must be met due to long-awaited equipment upgrades, booming freight traffic and high-speed train projects, and the growing need for conventional subways, fully-automated metros, and light-rail suburban vehicles worldwide.

Nexans manufactures a complete range of rolling stock cables and components, meeting national and international standards, in addition to providing system integration, extensive customer service and innovative products for future needs. We supply both standard items and customized solutions, and reinforce system interoperability to meet the challenge of ERTMS and ETCS.

As a far-sighted operator, you are aware that a new set of European norms for standard and thin-wall cables will come into effect soon, and you want to be ready. You need a wide choice of low-voltage cables to cover all of your power needs, and you expect them to have excellent fire-performance characteristics to protect the traveling public. They must also be compact and easy-to-install, with high tensile strength for smooth pulling. You expect easy strippability and convenient spool sizes for maintenance personnel.

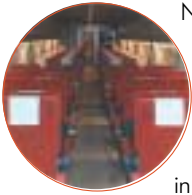
To help you achieve this, Nexans offers easy-to-install and fire-safe **standard and thin-wall LV control cables**.

Standard and thin-wall LV control cables

for communication systems,
public address, lighting



Standard and thin-wall LV control cables: providing essential power for comfort and control



New European standards for LV control cables (for high temperatures, fire performance, etc.) will come into effect

in 2008. However, Nexans

decided to prepare the way by conforming now. Nexans' standard and thin-wall cables provide 220-750 V power for everything from automatic doors to lights, electric seats, brake control, air-conditioning, communications equipment, etc. They have excellent resistance to abrasion, vibration, chemicals, oil, and heat. Easy stripping and gliding qualities, durability, and exceptional fire performance make them a preferred choice for OEMs and refitters.

This Nexans solution gives you:

- **Easy installation** through high mechanical strength, flexibility, easy strippability (both manually or automatically)
- **Fire protection** for people and equipment through Halogen-Free Fire-Retardant (HFFR) materials
- **Compactness** in keeping with railway rolling stock specifications
- **Weight saving** thanks to optimized dimensions and thin insulations
- **Resistance** to abrasion, vibration, oil and chemicals
- **Convenient packaging** adapted to customer needs in terms of lengths and manageable pool size
- **Advanced logistics** including on-time delivery (OTD) and sequenced deliveries in-order for assembly lines
- **Conformity** to the upcoming European Norm standards (EN 50306)
- **Customized coloring** according to specific customer needs

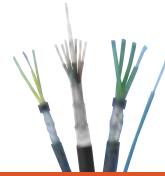


Nexans supports OEMs and suppliers worldwide

For over 30 years, Nexans has been serving major original equipment manufacturers, including industry

leaders, like Bombardier, Alstom and Siemens, as well as numerous first and second tier rolling stock suppliers. Recently, Nexans began serving the expanding Spanish market by supplying cables to CAF (Construccion y Auxiliar de Ferrocarriles) in new metro projects destined for Rome and Barcelona.

Thin-wall, LV (up to 750 V) control cables



Product families	Product family names	Standards / Specs
NFF 63808 / EN 50306 Flamex (Singlecore, halogen free)	Crosslinked polyethylene, low voltage thin-wall Flamex 20 series 0.3 / 0.5 kV 0.38 to 6 mm ²	<ul style="list-style-type: none"> • NFF 63808/EN 50306, NFF 16101, NFC 332/1 & 3, BS 6853
NFF 63808 / EN 50306 Flamex (Multicore, halogen free)	Crosslinked polyethylene, low voltage thin-wall Flamex 20 series 0.3 / 0.5 kV 2, 3, 4, 7, 13, 19, 37 x 0.38 to 6 mm ²	<ul style="list-style-type: none"> • NFF 63808/EN 50306, NFF 16101, NFC 332/1 & 3, BS 6853
Control cables, unshielded	MAZ HXOE	<ul style="list-style-type: none"> • Acc. to EN 50306
Control cables, shielded	MAZ CHXOE	<ul style="list-style-type: none"> • Acc. to EN 50306
Control cables fire-resistant, unshielded	MSZ HXOE	<ul style="list-style-type: none"> • Acc. to EN 50200 and BS 6387
Control cables fire-resistant, shielded	MSZ CHXOE	<ul style="list-style-type: none"> • Acc. to EN 50200 and BS 6387

Standard, LV (up to 750 V) control cables

Product families	Product family names	Standards / Specs
NFF 63826 / EN 50264 (Multicore cables)	HFFR, multicore class 5 0.5 kV (0.6 / 1 kV) 2, 4, 7, 13, 19, 37 x 1.5 mm ² 2, 4, 13, 19 x 2.5 mm ²	<ul style="list-style-type: none"> • NFF 16101, IEC 332-1/2
NFF 63296 (Multicore cables, gaseoil resistant)	Multicore class 5 0.5 kV 2, 4, 7, 13, 19, 37 x 1.5 mm ² 2, 4, 13, 19 x 2.5 mm ²	<ul style="list-style-type: none"> • NFC 32070



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