MOTIONLINE®

High performance control cables for the Automation Industry

Nexans
BRINGS ENERGY TO LIFE

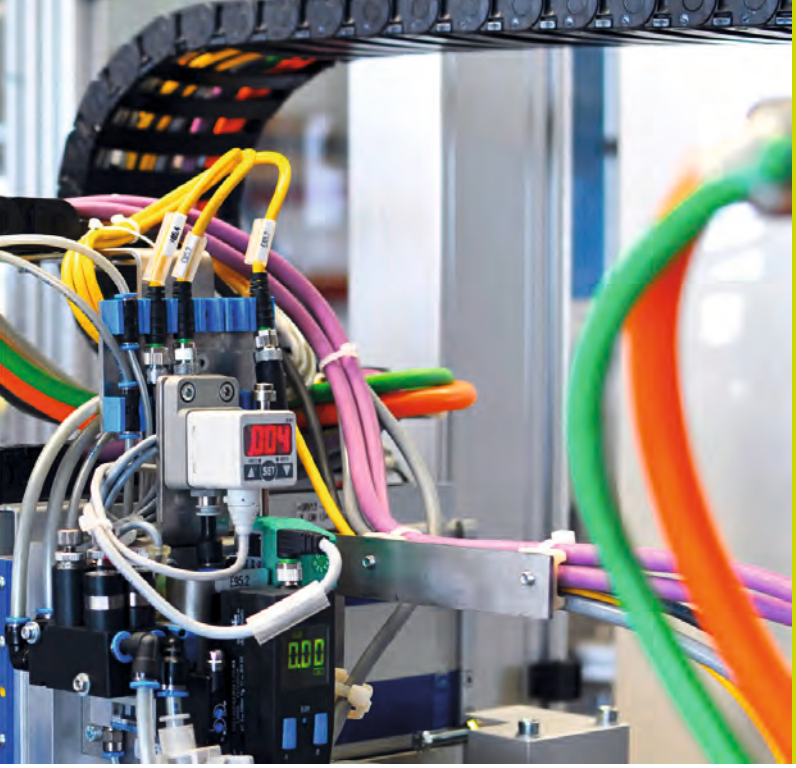
APPLICATIONS AND REQUIREMENTS

Nexans produces and develops cables for the Automation market for many years. Competencies and partnerships with the main players of this sector, allow Nexans to be constantly up-to-date on market's needs and new trends.

Nexans MOTIONLINE® new control cables are designed for continuous moving applications. Thanks to the insulation material in TPE elastomer, a thermoplastic polymer resistant to abrasion and more durable than PVC, Nexans guarantees better dynamic performances in terms of number of cycles with lower bending radius also at low temperature. Key characteristics are also that the outer diameter can be decreased and the electrical capacitance is lower than using PVC. These cables are designed for continuous moving applications where good flexibility and oil resistance property are requested. Nexans control cables are used in track systems for machine tools, wood machines, automatic lines and many other applications where best performances with the small dimensions are needed.

Control cables requirements of machine makers and systems integrators

- High mechanical performance & small dimensions
- Jacket material highly resistant to tear and abrasion
- Reliability to avoid the stop of production process
- Oil resistance and flame retardancy
- High flexibility
- Continuos moving with low bending radius

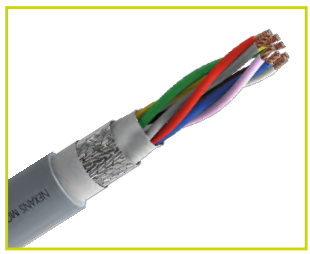


Nexans' answer

- High performances up to 10 millions of cycles at 6,5 x d in drag chain
- Compliant with UL and CSA standard
- High resistance to oils, fats and chemicals
- Resistance to abrasion
- Reliability proven in real life application and by extensive testing

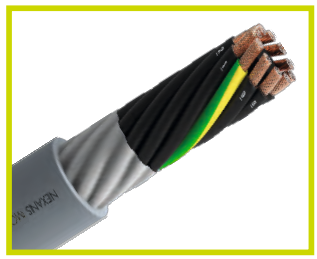
MOTIONLINE® CONTROL CABLES
COMPLETE OFFER

Movetronic



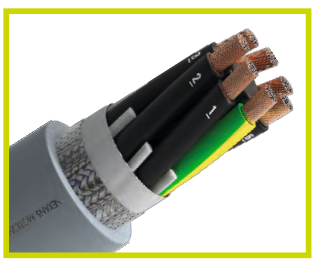
Data and signal transimission cables for chain application, Suitable for measuring and control at production lines, all types of machine.

LC Moveflex / LC Cabloflex



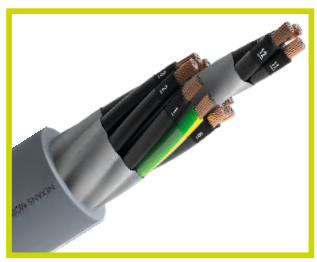
Control cables for power chain application or moving machine parts **up to 600V**, suitable for measuring and control, power circuits for electrical equipment in automation, assembly lines, all kinds of machines.

LC Movepower / LC Cablopower



Control cables for power chain application or moving machine parts **up to 1000V**, suitable for measuring and control, power circuits for electrical equipment in automation, assembly lines, all kinds of machines, machine tools.

Tray cables



Suitable for static application outside and inside cable tray, wind turbines **TC-ER and MTW approved, UL Listed**.

WHAT'S NEW?

New insulation material for better dynamic performance

BETTER DYNAMIC PERFORMANCE

Properties	Old range PVC-PUR	New range TPE-PUR
Cycles	3 Millions	**10 Millions**
Bending Radius	7,5 x d	**6,5 x d**
Speed	240 m/min	**600 m/min**
Acceleration	20 m/s²	**60 m/s²**

Properties	Old range PVC-PVC	New range TPE-PVC
Cycles	2,5 Millions	**5 Millions**
Bending Radius	10 x d	**6,5 x d**
Speed	180 m/min	**300 m/min**
Acceleration	7 m/s²	**20 m/s²**

DYNAMIC PERFORMANCES IN DETAILS

Cable type	Cycles	Bending radius	Speed	Acceleration	Jacket
LC Moveflex	10 Millions	6,5 x d	60 m/s²	600 m/min	PUR
LC Movepower	10 Millions	6,5 x d	60 m/s²	600 m/min	PUR
Movetronic PUR	10 Millions	6,5 x d	60 m/s²	600 m/min	PUR
LC Cabloflex	5 Millions	6,5 x d	20 m/s²	300 m/min	PVC
LC Cablopower	5 Millions	6,5 x d	20 m/s²	300 m/min	PVC
Movetronic PVC	5 Millions	6,5 x d	20 m/s²	300 m/min	PVC

MOVETRONIC PUR

Application	• **Suitable for extremely dynamic application**
Cycles	• Min. **10 Millions of cycles**
Bending radius	• 6,5 x d
Speed	• Speed of **600 m/min**
Acceleration	• **60 m/s²**
Jacket material	• **PUR jacket**
Resistant to oils	• EN 50363-10-2
Flame retardant	• IEC 60332-1; FT1; UL 1581; EN 50265-2-1
Shielding	• Available in both version: **screened and unscreened**
Construction	• Cross section **from 0,14 mmq to 0,34 mmq** and **from 2 to 25 conductors**
Nominal voltage	• **300V**
Approval	• **UL/CSA**

LC MOVEFLEX

Application	• **Suitable for extremely dynamic application**
Cycles	• Min. **10 Millions of cycles**
Bending radius	• 6,5 x d
Speed	• Speed of **600 m/min**
Acceleration	• **60 m/s²**
Jacket material	• **PUR jacket**
Resistant to oils	• EN 50363-10-2
Flame retardant	• IEC 60332-1; FT1; UL 1581; EN 50265-2-1
Shielding	• Available in both version: **screened and unscreened**
Construction	• Cross section **from 0,50 mmq to 2,5 mmq** and **from 2 to 30 conductors**
Nominal voltage	• **600V**
Approval	• **UL/CSA**

LC MOVEPOWER

Application	• **Suitable for extremely dynamic application**
Cycles	• Min. **10 Millions of cycles**
Bending radius	• 6,5 x d
Speed	• Speed of **600 m/min**
Acceleration	• **60 m/s²**
Jacket material	• **PUR jacket**
Resistant to oils	• EN 50363-10-2
Flame retardant	• IEC 60332-1; FT1; UL 1581; EN 50265-2-1
Shielding	• Available in both version: **screened and unscreened**
Construction	• Cross section **from 1,5 mmq to 35 mmq** and **from 2 to 12 conductors**
Nominal voltage	• **1000V**
Approval	• **UL/CSA**

MOVETRONIC PVC

Application	• Suitable for dynamic application
Cycles	• Min. **5 Millions of cycles**
Bending radius	• 6,5 x d
Speed	• **300 m/min**
Acceleration	• **20 m/s²**
Jacket material	• **PVC jacket**
Resistant to oils	• EN 50363-4-1
Flame retardant	• IEC 60332-1; FT1; UL 1581; EN 50265-2-1
Shielding	• Available in both version: **screened and unscreened**
Construction	• Cross section **from 0,14 mmq to 0,34 mmq** and **from 2 to 25 conductors**
Nominal voltage	• **300V**
Approval	• **UL/CSA**

LC CABLOFLEX

Application	• Suitable for dynamic application
Cycles	• Min. **5 Millions of cycles**
Bending radius	• 6,5 x d
Speed	• **300 m/min**
Acceleration	• **20 m/s²**
Jacket material	• **PVC jacket**
Resistant to oils	• EN 50363-4-1
Flame retardant	• IEC 60332-1; FT1; UL 1581; EN 50265-2-1
Shielding	• Available in both version: **screened and unscreened**
Construction	• Cross section **from 0,50 mmq to 2,5 mmq** and **from 2 to 30 conductors**
Nominal voltage	• **600V**
Approval	• **UL/CSA**

LC CABLOPOWER

Application	• Suitable for dynamic application
Cycles	• Min. **5 Millions of cycles**
Bending radius	• 6,5 x d
Speed	• **300 m/min**
Acceleration	• **20 m/s²**
Jacket material	• **PVC jacket**
Resistant to oils	• EN 50363-4-1
Flame retardant	• IEC 60332-1; FT1; UL 1581; EN 50265-2-1
Shielding	• Available in both version: **screened and unscreened**
Construction	• Cross section **from 1,5 mmq to 35 mmq** and **from 2 to 12 conductors**
Nominal voltage	• **1000V**
Approval	• **UL/CSA**

TRAY CABLES

Application	• Suitable for static application
Bending radius	• Bending radius for occasional movement of **15 x d**
Insulation material	• PVC + Nylon insulation (PA skin)
Jacket material	• **PVC compound jacket**
Resistant to oils	• Acc. to UL OIL RES I
Flame retardant	• UL 1581 section 1160 and CSA FT4
Shielding	• Available in both version **screened and unscreened**
Construction	• Cross sections **from 1 mmq to 70 mmq** and **from 2 to 25 cores**
Approval	• **UL MTW; UL TC-ER 90°C 600V; UL WTTC 90°C 1000V; UL DP-1; UL AWM 600V; C(UL) CIC/TC**
Standard	• UL 1277/ UL 2277

Nexans Expertise

In the Nexans Research center (NRC) and Motion Application Center (MAC) located in Nuremberg, Nexans develops and tests high quality automation cables, to provide its customers with reliable cables solutions. Thanks to this, Nexans is able to control the complete life cycles of a cable and to optimize copper conductors, jacket materials, cable design and production process to achieve the best results in terms of cost and durability.

Nexans Capabilities

With two plants strongly dedicated to the automation industry, located in the heart of the European machine building industry- Pioltello (North Italy) and Nuremberg (South Germany), Nexans is able to support its customers providing a full range of automation cables. The quality and reliability of Nexans cables and services result from yearlong partnerships with robot producers, leading component OEMs and machine tool producers.

Nexans brings energy to life through an extensive range of advanced cabling systems, solutions and innovative services.
For over 120 years, Nexans has been providing customers with cutting-edge cabling infrastructure for power and data transmission. Today, beyond cables, the Group advises customers and designs solutions and services that maximize performance and efficiency of their projects in four main business areas: Building & Territories (including utilities, e-mobility), High Voltage & Projects (covering offshore wind farms, submarine interconnections, land high voltage), Telecom & Data (covering data transmission, telecom networks, hyperscale data centers, LAN), and Industry & Solutions (including renewables, transportation, Oil & Gas, automation, and others).

Corporate Social Responsibility is a guiding principle of Nexans' business activities and internal practices. In 2013 Nexans became the first cable provider to create a Foundation supporting sustainable initiatives bringing access to energy to disadvantaged communities worldwide.

The Group's commitment to developing ethical, sustainable and high-quality cables also drives its active involvement within leading industry associations, including Europacable, the NEMA, ICF or CIGRE to mention a few.

Nexans employs nearly 27,000 people with industrial footprint in 34 countries and commercial activities worldwide. In 2018, the Group generated 6.5 billion euros in sales.
Nexans is listed on Euronext Paris, compartment A.

For more information, please visit: www.nexans.com

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