Press Kit
Hanover Fair (19-23 April 2010)

- **Superconducting medium voltage cable from Nexans conducts record current: 3,200 amperes during load cycle tests**
  Laboratory measurement within the Endesa Supercable project demonstrates real world feasibility

- **Gigabit Ethernet switch for complex network connections**
  Nexans presents the new iGigaSwitch-54x series

- **Medium-voltage connector for cross-sections of 16 mm² to 1,000 mm²**
  Nexans Power Accessories presents the M630-1000 screw connector

You will find Nexans at Hanover Fair at **hall 13, stand C89**.

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Press Release

Superconducting medium voltage cable from Nexans conducts record current: 3,200 amperes during load cycle tests

Laboratory measurement within the Endesa Supercable project demonstrates real world feasibility

Hanover, 19 April 2010 – Nexans' superconductor specialists have successfully concluded the Endesa Supercable project while setting a new world record. In December 2009, the single-phase, medium voltage cable (24 kV) carried 3,200 A in laboratory conditions, almost 10 percent more than any installed medium voltage cable worldwide. During ten load cycles of 24 hours the rated current was applied for 8 hours per cycle while the cable was subjected to twice the nominal voltage continuously.

The project partners, Nexans, the global leader in cables and cabling solutions, Endesa S.A., the Spanish energy provider and the ICMAB-CSIC Institute for Materials Sciences (Institut de Ciència de Materials de Barcelona - Consejo Superior de Investigaciones Científicas) are planning an installation in a power grid as the next step. The 30-metre long demonstration cable, including associated terminations and cryogenic equipment, demonstrated viability in the Nexans laboratory in Hanover. The superconducting cable withstood test protocols incorporating varying loads, with voltages exceeding the nominal value.

High-temperature superconductor (HTS) materials exhibit almost no electrical resistance at their operating temperature of approximately -200°C. They can transport higher currents with considerably smaller cross-sections compared to conventional aluminium or copper. Superconductor cables are therefore well positioned to form the "main artery" of urban distribution networks.

"The Endesa Supercable demonstrates the possibilities that exist for the power grids of the future", comments Frank Schmidt, Head of the HTS Systems division at Nexans in Hanover. "High-power network sections can benefit from superconductor cables which provide an alternative to traditional technologies by transmitting the same power at a lower voltage. Both the number of transformer stations and total losses in the network can therefore be minimized and the associated savings will help superconductors to become economically viable in the coming years", states Frank Schmidt.

There are other advantages to superconductor cables. Despite their outer cryogenic sheath (the thermal insulation), they still take up less space than similar copper cables while providing the same power transmission capacity, and they emit neither electromagnetic fields nor heat. This makes it possible to space the cables phases closely together, which allows underground space to be used more effectively. This is especially advantageous in densely populated city centres.

The 30-metre long superconductor cable from the Endesa Supercable project created a new record in the Nexans laboratory in Hanover by conducting a current of 3,200 A.

The high-performance medium-voltage cable based on high-temperature superconductors has to be cooled to almost -200°C for optimum conductivity.

Press Release

Gigabit Ethernet switch for complex network connections

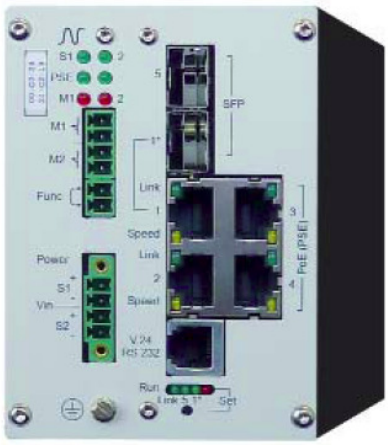
Nexans presents the new iGigaSwitch-54x series
at the Hanover Fair (19-23 April 2010, hall 13, stand C89)

Hanover, 19 April 2010 – Nexans Active Networking Systems presents the new iSeries iGigaSwitch 54x. The iGigaSwitch-54x systems, which are specially designed for the energy market, feature up to five Ethernet interfaces offering transmission capacities of 10 Mbit/s, 100 Mbit/s and even 1 Gbit/s, as well as two Gigabit SFP (small form-factor pluggable) slots. These are compatible with standard transceivers for fibre-optic or copper cables and feature not only an automatic switchover from 100 Mbit/s to 1 Gbit/s, but also a diagnostics/alarm function.

With suitable connection modules such as Fast Ethernet or Gigabit Ethernet SFP, the device interfaces can be quickly adapted to suit the required application. All copper ports are equipped with "Power over Ethernet" technology (PoE), which means that up to four PoE devices – such as WLAN access points, video cameras or IP telephones – can be powered directly via the data cables. A range of automatic functions (plug and play) make it easy for users without specialist IT skills to start operating the devices. The connected devices can be replaced just as quickly and easily if a fault occurs because the iGigaSwitch-54 systems feature intelligent configuration management and a storage card with its own MAC address. The switch configuration is redundantly backed up multiple times and can be managed via the standard WEB interface, Telnet or SNMP. The switch systems can be quickly attached to the cap rail, and support different security and high-speed redundancy procedures.

The Nexans switch series is designed for robust industrial applications, including wind turbine controllers, the networking and automation of transformer stations, remote meter readings and video surveillance in airports and train stations, for example. Traffic telematics and machine control are further examples of the diverse range of applications of iGigaSwitch-54x systems. To ensure cost-effective and flexible deployment, the devices are designed for a broad input voltage and operating temperature range (-40°C to +85°C).

The iGigaSwitch 54x systems transmit all the data in industrial communication networks quickly, reliably and securely, and are an integral component of an intelligent energy network, Smart Grid. Supporting the IEC-61850 standard, which enables end-to-end communication between the power plant, distribution networks and transformer stations, these solutions provide energy companies with new opportunities for efficient, flexible and manufacturer-independent mains operation.



Suitable for high-speed network connections: the Nexans iGigaSwitch 54x systems.

Press Release

Medium-voltage connector for cross-sections of 16 mm² to 1,000 mm²

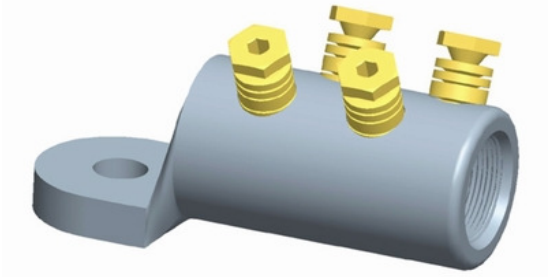
Nexans Power Accessories presents the M630-1000 screw connector
at the Hanover Fair (19 to 23 April 2010, hall 13, stand C89)

Hanover, 19 April 2010 – Rounding off the high end of the M series, Nexans Power Accessories is launching the M630-1000, a new medium-voltage connector designed for any cable cross-section. As a result, Nexans now offers the broadest range of IEC-tested medium-voltage connectors (IEC 1238-1). Just four Nexans connectors – M16-95, M70-240, M300-500 and M630-1000 – are all it takes to completely cover cross-sections of anywhere between 16 mm² and 1,000 mm².

The connector bodies are made of a highly robust aluminium alloy, while the hexagon socket and hexagon head of the screws are made of brass. All surfaces are tin plated. The clamping range of this connector is between 630 mm² and 1000 mm² (Al rm/Al re: 630-1000 mm², Cu rm: 630-800 mm²). The portfolio also includes five additional M series connectors optimised for intermediate cross-section ranges, six transition connectors, as well as special centring rings for centring the cables.

M series connectors are particularly suited for applications requiring the transmission of high power capacities or for connecting wind turbines.

The GPH M630-1000 screw connector rounds off the high end of Nexans' range of medium-voltage connectors.



Also available: the Nexans cable lug GPH C630-1000

Nexans Germany

Nexans Germany is one of the leading cable manufacturers in Europe. The company is offering an extensive range of high performance cables, systems, and components for the telecommunications and energy sectors, rounded off by superconducting materials and components, Cryoflex transfer systems and special machinery for the cable industry. Producing at manufacturing plants with 6.240 employees in Germany and abroad, the sales in 2008 amounts to approx. 936 Mio Euro. The full integration into the Nexans Group Nexans Germany also benefits from excellent opportunities to use the available synergies in all corporate fields, which not only applies to worldwide projects but also to research and development, the exchange of know how, and to other areas.
Additional information can be found at www.nexans.de

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