



**Seismic and oceanographic cables
for exploration ease and system durability**

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.



Seismic and oceanographic cables from Nexans to assure your operational efficiency

Faced with rising demand, and green concerns, the oil & gas industry is seeking to explore new reserves, reduce costs, and improve operational efficiency. Remotely-managed “smart wells”, both land-based and offshore, are a definite trend, as well as longer and deeper umbilicals. Meanwhile, the industry is forever looking for safer, more reliable and environmentally-friendly methods in extraction and processing.

Nexans provides a wide range of energy and telecom cables for prospecting, production and distribution, as well as for refineries, storage depots and petrochemical complexes, including safer lead-free energy cables. Aside from mastering installation techniques both onshore and offshore, Nexans has developed deepwater umbilicals, new

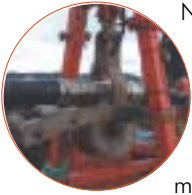
protective sheathings, high-speed optical fiber solutions, and fire-performance products, all of which are recyclable.

During marine prospecting, “streamers” are towed behind vessels by long “lead-in” cables. Streamers are sensor cables with built in hydrophones, and must be positioned at a constant distance from each other. Subject to extreme pulling force and drag, the lead-ins need to be thin and tough. Air gun umbilicals provide the explosions for seismic profiling, and have to be robust enough to support repeated hose contractions. Bottom-laid cables must operate flawlessly at any depth.

To help you improve efficiency, Nexans offers sturdy and reliable **seismic and oceanographic cables**.



Seismic and oceanographic cables: smooth, cost-effective prospecting on the high seas



Nexans has used its long experience from designing dynamic umbilicals for Remotely Operated Vehicles (ROVs) to manufacture a whole range

of seismic and lead-in cables that can survive longer, and spread out wider behind sea-going vessels (up to 16 “streamers” and more). Tow leaders can sustain extreme pulling force because of high tensile steel wire armoring. Air gun umbilicals contain advanced cushioning and copper wires to control the gun itself, so as to deliver a concerted 8 blows. Finally, Nexans bottom-laid cables provide a better image of the reservoir substructure, allowing for more intelligent drilling and exploitation. With French Sercel, a composite cable (“Deep Sea Link”) has been developed that can operate down to 2,000 meters.

This Nexans solution gives you:

- **Hassle-free operations** due to system reliability and durability
- **Important time-savings** since there are fewer failures, re-terminations or cable replacements
- **Operational speed** since cables can endure high drag force and repeated use
- **No or low maintenance** due to termination strength and no water ingress
- **Freedom from cracks** in freezing water conditions due to new materials
- **Durability** of air gun umbilicals because of airbag cushioning
- **Reliable signaling** because of strong outer sheath and armoring
- **Deep-sea** reliability because of composite seabed sensor cables
- **Versatility** since two versions of bottom laid cables are available, both permanent or retrievable
- **Monitoring capability** for the scientific industry, radiation and nuclear testing, submarine location, harbor movement and ship traffic.



Nexans delivers subsea cables and components in Antarctic

For the CEA/DAM’s Crohydro project, Nexans provided cables and components for a permanent hydro-acoustic monitoring system to detect nuclear explosions worldwide. Because of short “weather windows” and high vessel operation costs, Nexans developed a

“plug-in” concept to minimize laying and enabling time for pre-terminated cables. The system supports working pressure, tensile loads, vibration, bump and thermal loads associated with transport, laying and operation down to 1,500 meters over 20 years.



Seismic and oceanographic cables



Product families	Product family names	Standards / Specs
SL (Lead-in cables)	SL-020-Universal lead-in Cable	<ul style="list-style-type: none">• These cables are developed according to customer specifications. Nexans has issued a detailed handling guideline on the use of ROV umbilicals and tethers. It contains advice on transportation, lifting, spooling, termination and maintenance. This document is available on customer request.
SG (Gun Cables)	SG-303-Gun umbilical	
SB (Ocean Bottom Cables)	SB-303-Deep Sea Link Cable	
DO (Oceanographic Cables)	DO-001-Catania, composite cable, seabed DO-037-Crohydro, composite cable, seabed	





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