



NORWEGIAN RESEARCH VESSEL CHOOSES LANMARK MARITIME SOLUTIONS

G.O. Sars is sailing to success thanks to advanced Nexans LANmark-7 and fibre-optic solutions

G.O. Sars, a Norwegian research vessel, relied on Nexans Cabling Solutions to provide the resilient cabling and network infrastructure needed to support its on-board network. With the help of Nexans' partner SOhome, G.O. Sars has created a solid and dependable framework for its on-board network.

Executive Summary

CUSTOMER University of Bergen

LOCATION Norway

REQUIREMENT Provision of a high-quality on-board network

EQUIPMENT LANmark-7 Maritime

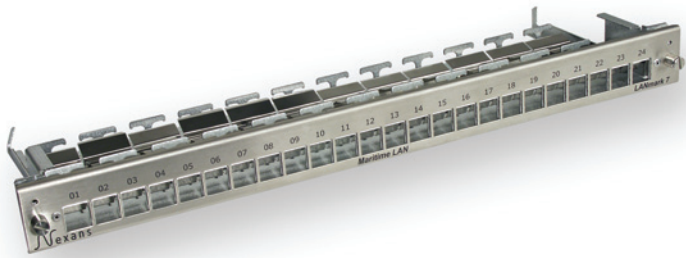
One of the world's most advanced research vessels

G.O. Sars is a Norwegian research ship, owned and operated by the Institute of Maritime Research (IMR) of the University of Bergen. It is at sea almost all year round, measuring fish stocks and conducting research, mostly in the North and Barents Seas. Handed over in May 2003, G.O. Sars is one of the most advanced research vessels in the world. It is equipped with state-of-the-art technology in order to carry out a wide variety of research work.

The need for an on-board network of the highest possible quality

In 2003, G.O. Sars, back then a brand new research ship, needed the most resilient and high-performance on-board cabling and network infrastructure available. "You need the very best cabling on a ship because you don't want to have to re-cable it in five or ten years' time," says Per Schulhus, Director at SOhome.

When building an on-board network for a ship, cabling must be reliable and must meet needs for a considerable time into



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Chief Electronic Engineer on G.O. Sars

Challenges

- » On-board ship network
- » Resilient, future-proof cabling infrastructure
- » Immunity to electro-magnetic interference

Solutions

- » LANmark maritime shielded cabling
- » Cat7
- » Multimode fibre backbone

Benefits

- » Solid and dependable framework for the ship’s network
- » Future-proof solution, supporting high bandwidth of 10 Gig
- » Robust, resilient, reliable and safe

the future. To prevent electromagnetic interference, choosing the right cable type is vital. Therefore SOhome recommended the use of Nexans’ LANmark-7 and fibre-optic solutions, which are completely immune to interference.

“It is very difficult and expensive to run a new cabling infrastructure, so it was important to go for the best quality available from the start. Therefore we have chosen for Nexans Cabling Solutions,” says Martin Dahl, Chief Electronic Engineer on G.O. Sars. The ship will not need refitting for perhaps twenty years.

Creating a solid and dependable framework

The ship has two independent networks – one for administration, the other linking scientific equipment. Outdoor cabinets and Cisco switches are connecting a fibre backbone. Average cable lengths on the ship are 35 metres and no channel is longer than 70 metres. On top of specialist surveying, navigational and electronic equipment, G.O Sars also has an extensive Ethernet LAN. As much as 200 Gig of data can be collected in a single day and the ship has a huge 2,4Tb of storage capacity.

The ship’s network already operates the backbone at 1 Gig and it is likely to move to 10 Gig in the future. Nexans’ Cat-7 and fibre cabling will enable it to do so. Martin Dahl: “The cabling has proven to be very reliable and has easily met the required standards for reliability and performance. It has given the ship’s network a solid and dependable framework for its on-board network.”

Many more potential users

“We have completed a number of projects in the marine industry and we are seeing many more land-based installations now,” says Per Schulhus. SOhome has now equipped more than thirty vessels with the Nexans solutions worldwide. Two new research vessels have recently been developed and SOhome is also working on a turnkey maritime LAN for a new research vessel as well as a number of other maritime projects, all of which will utilise products from Nexans Cabling Solutions. ☒