

BIRNS 70

BIRNS, the high-performance underwater connector and cable assembly designer/manufacturer is celebrating its 70th birthday. On a visit to London, the company discussed some of the technology it has been developing recently.

"We introduced the BIRNS Meridian series, a new line of high ampacity connectors at Oceanology," said Bruce Meredith, Technical Sales Manager.

"We have been providing high voltage connectors for many years, but have noted that enquiries for high current or ampacity connectors has risen recently."

BIRNS Meridian connectors are 225 Amps and 6km-rated, and are ideal for devices that have a high amperage power transfer requirement associated with them, such as battery packs and thrusters for crewed and uncrewed subsea vehicles.

"As battery systems are getting increasingly more advanced and thrusters are getting larger to allow vehicles greater speeds and depths, the demand for current capacity has also increased."



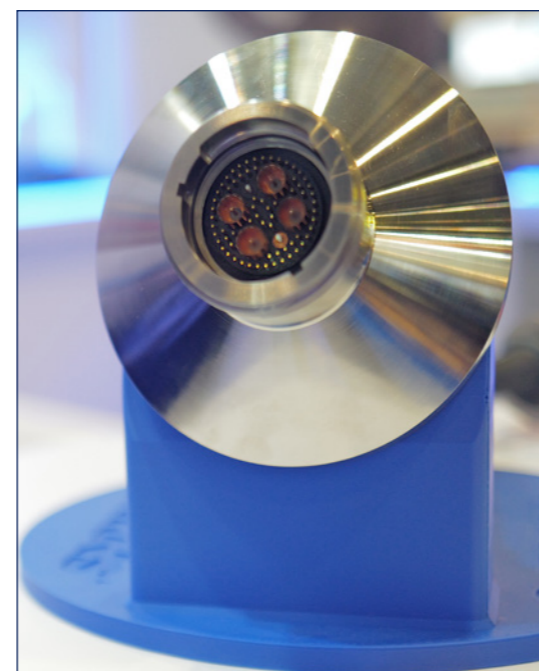
6000M Open Face Rated COAX Cable Assemblies

Select sizes are presently being DNV type-approved for 6km rated crewed submersibles. BIRNS Meridians are compact and feature 4 pin configurations, with more currently in development.

"A unique feature of such connectors is the very large pin diameters, for example, the M40 has a single 85 mm² (3/0 AWG) contact," said Meredith

BIRNS Meridian M40-1 Titanium Connector Pair

"Both standard and reverse gender versions are featured in the series and all withstand reverse pressure. They can be installed into both dry and oil-filled canisters.



Hull penetrator face



C-KORE800

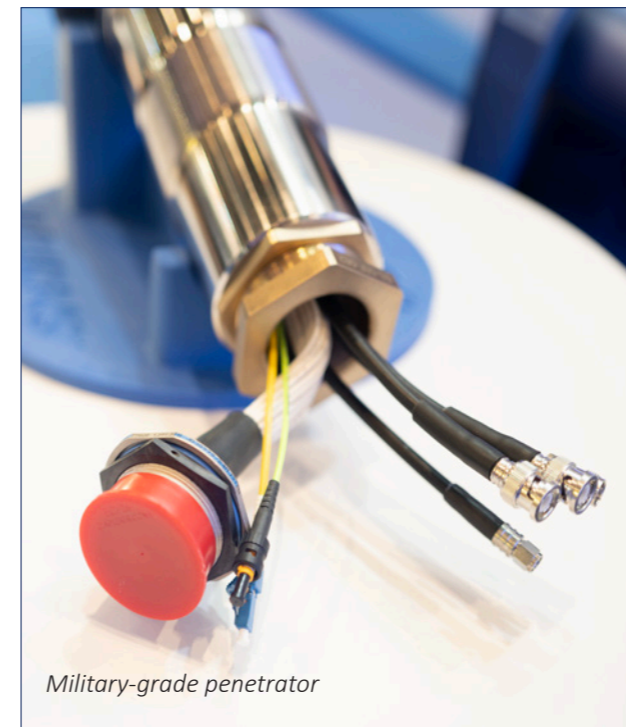


Automated subsea testing tools specialist C-Kore Systems is celebrating the mobilisation of their 800th unit. The job is with a major operator off the W African coast for fault-finding operation on a complex subsea electrical network.

C-Kore has been assisting operators worldwide for over a decade with more than 300 subsea faults found so far! Its subsea testing units have gained worldwide acceptance with both operators and contractors for the cost-savings the tools provide, the reduction in offshore personnel required for testing, and the simplification they bring to subsea operations.

To date, C-Kore's testing tools have been used on over 100 different fields by more than 80 different customers around the world in 23 different countries. With over 35,000 tests being run, it can safely be said that C-Kore Systems has a good understanding of subsea fault-finding.

After completing their offshore campaign, the Subsea Controls Engineer at a major operator commented, "We managed to locate another line fault in the system resulting in a EFL changeout and subsequent restoration of IR health."



Military-grade penetrator

6000M
"Our connector lines are all open face pressure rated to 6km. The exception for open face rating historically, for ours and others in the industry, were coaxial connectors.

"However, with recent testing, we've certified that both our 50 and 75 ohm coax connectors are rated to open face at 6000m depth, which is unheard of in the industry. Our BIRNS Millennium series 1C assemblies also achieve a remarkable -0.35dB attenuation and 1.2 VSWR at 3GHz. Low losses, high frequencies, and 6km open face pressure resistance—we feel that these performance characteristics are invaluable to our customers.

HULL PENETRATORS
"Another recent introduction is military grade hull penetrators for submarines, which we designed in response to a recent customer request. One challenging design aspect of a recent configuration was that the small receptacle not only contained 67 electrical contacts, but four coax connectors and two fibre optic lines, all within a sub-safe housing. Here at Oceanology we are excited to also launch new 6000 meter-rated DNV type approved penetrators for some major new contracts."