

Exail™s new integrated INS/DVL system unveiled



Exail, a global leader in high-performance subsea inertial navigation systems (INS), recently launched the Rovins 9 DVL, an innovative all-in-one system that combines the strengths of inertial navigation and Doppler Velocity Log (DVL) technologies. With this tightly integrated solution, Exail offers subsea vehicle manufacturers a highly accurate and reliable subsea navigation solution.

Highly compact for easy vehicle integration, the Rovins 9 DVL all-in-one design combines Exail advanced fibre-optic based INS with a Nortek DVL in a single housing. This tight integration of raw sensor data from both INS and DVL provides operators with highly accurate position, velocity and attitude information, even in challenging subsea environments. This new all-in-one system is perfectly suited for subsea companies looking to maximize efficiency, and allows for higher levels of reliability with a position accuracy of up to 0.02%TD and a heading accuracy of up to 0.01°RMS.

Connecting external sensors

“By merging the INS and DVL complementary measurements, the resulting navigation data becomes much more precise and accurate than that obtained using either system alone. The ability to connect external sensors such as pressure sensors through the satellite connectors available on the system provides even greater accuracy,” said Maxime Le Roy, INS product manager at Exail. “The Rovins 9 DVL greatly simplifies the work of subsea operators in the field. The system can be easily integrated into a variety of subsea vehicles, including ROVs, AUVs and towfishes, thanks to its unique compact horizontal design and plug-and-play feature.”

The Rovins 9 DVL seems an excellent option for AUV manufacturers and e-ROV operators looking to minimize power consumption without sacrificing data processing capabilities. It operates on low power and exhibits high resistance to harsh environments and high-pressure conditions, making it suitable for deployment up to 6,000 metres. Exail's new all-in-one system is readily deployable, offering significant time and cost savings to subsea operators. With fast in-motion self-alignment and no in-the-field calibration required, it ensures efficient operations.



The Rovins 9 DVL is designed to simplify the work of subsea operators in the field. (Image courtesy: Exail)