

DMT to Present GYROMAT 5000 at Intergeo

Modern surveying often relies on data from satellite-based GNSS systems, as do modern navigation systems, too. But what if there is no satellite reception? This could be the case underground, in tunnels or in large-scale constructions. And what if, as in tunnel-building, the highest level of precision is crucial when measuring direction?

DMT, the German engineering and consulting company, has a solution: the GYROMAT 5000. This is the latest product to be developed by DMT in its range of high-accuracy surveying instruments and will be on show at the upcoming Intergeo, the international geodesy trade fair.

The GYROMAT 5000 allows the accurate measurement of direction, irrespective of the Earth's magnetic field. A neutral, rapidly rotating gyroscope is suspended inside the instrument, which, due to the combined forces of the gyro rotation, gravitational pull and the Earth's rotation, oscillates around geodetic north. The integrated scanning system then determines the direction of true north fully automatically and with ultra-precision, achieving an accuracy of 0.8mgon.

This gyroscope is the result of more than 60 years of experience in the development and production of gyro measuring devices at DMT, explained Dr Jörg Niese, head of development for geodetic measuring systems. In terms of technical specifications, operation and precision measurement, it is far superior to the predecessor model. In short, the functionality of the GYROMAT 5000 is more precise, faster and more reliable, Niese added.

The device is equipped with advanced monitoring capabilities and a new, more ergonomic design, plus menu-driven operation is possible via a built-in display/input unit. The gyroscope functions fully automatically, i.e. it does not require any manual pre-alignment. Another important point for customers is that the device is now available with a battery that can be replaced on site by the owner, and no longer needs to be sent to DMT, said Niese.

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