GYROMAT 3000

The Most Accurate Precision-Surveying Gyroscope in the World

A ground-breaking instrument for surveying applications

The bigger the challenge the better the equipment needed – and that is why we developed the brand new GYROMAT 3000. This fully automatic precision-surveying gyroscope opens up new possibilities for you. Get the results you need – even faster and more accurately, more reliably and economically than ever before.

A strong heritage

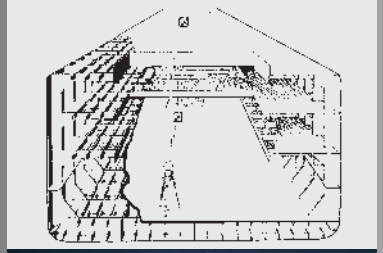
Almost 60 years of DMT experience in developing, crafting and applying gyroscopic measuring instruments provides the unique know-how needed for developing and manufacturing the most accurate gyroscope in the world.

Take the GYROMAT 2000 for instance. Engineers all around the globe made it the 'gold-standard' for tunnel surveying and it became part of their economic success. Amazing tunnelling achievements such as the "Chunnel" were masterfully monitored with this instrument. Now, its successor, the GYROMAT 3000 can take you even further.

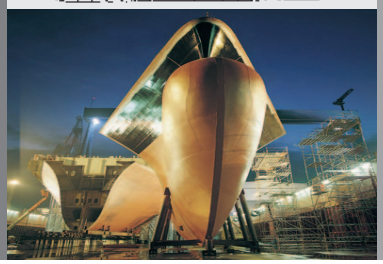
Operating to your advantage

You can measure accurate directions with the GYROMAT 3000 irrespective of the Earth's magnetic field. This is possible thanks to a neutral, rapidly rotating gyroscope suspended inside the instrument. The gyroscope axis oscillates around geographic north as a result of the interaction of the gyro rotation, gravitational pull and the Earth's rotation. This enables a special electro-optical scanning system – determine fully automatically where true north is with the utmost accuracy. On top of that it works fast – it takes just about 10 minutes to achieve a one-directional measurement with an accuracy of 1/1000 gon or 15 mm within one kilometre.

Metrology
GYROMAT 3000 can speed up processes by supplying an independent reference azimuth without GPS or astronomical observation.



Shipbuilding
In shipbuilding applications the instrument can be used to set up an internal reference system of centre lines to help cut costs and time, for instance machinery can then be aligned without referring to any external means of orientation.



GYROMAT 3000

New and improved

Ergonomically designed, the GYROMAT 3000 is a state-of-the-art instrument with the latest electronics that provides future-proof features and technology. It comes equipped with a vast memory and ensures your data are safe and secure. It is Bluetooth® compatible and can reach those hard-to-get-to-places faster and more comfortably than before. What's more, data transmission via Bluetooth® makes it easier to interpret data on the spot. Speaking of easier, the system supports you with extensive history and help functions for checking data to facilitate quality control in the field and help save time. You can process more information at a time on the big display and also progress faster through the menus. It is the combination of these advantages together with an interactive measuring process and an optical centering system that give you the benefit of better results, substantial time savings and, consequently, greater economic success.

Interested? Let us help you get your bearings. Call: +49(0)201 1721970

Sophiaspoor Tunnel

Lesotho Highlands Water Project

Break through – Eurotunnel

Elbe Tunnel Hamburg

Eurotunnel (Chunnel), Gotthardtunnel and many other groundbreaking projects would not have progressed as smoothly as they did without the GYROMAT.

We are ready for the next breakthrough. How about you?

Special Design Features

- Ergonomically designed instrument with integrated batteries
- Three serial interfaces (RS 232) to connect to a PC, a total station or other devices
- Wireless remote control and data transmission via Bluetooth®
- Two operation panels with integrated multiline display and keyboard
- Fully automatic measurement sequence, no need for pre-orientation
- Menu-controlled, interactive operation
- Integrated monitoring plus comprehensive history and help functions
- Output of intermediate values for checking quality
- Configurable instrument parameters
- Automatic evaluation of individual targets, automatic output of true north
- Customer defined total station or theodolite setup
- Optical centering system
- Intelligent, microprocessor-controlled charging station with battery maintenance, hibernation, and continuous measurement sequence features

Technical specifications

Measuring mode	A	B	Interactive Mode
Measuring accuracy in mgon Standard deviation to DIN 18723, ±1σ	1	10	depends on operation
Measuring time in minutes (approx.)	10	2	depends on operation
Battery capacity for single measurements	25	50	depends on operation

Operating temperature	-20 °C to +50 °C (-12 °C to +45 °C calibrated)

Operating range	up to 80° latitude

Dimensions and weight:	
GYROMAT 3000 (without theodolite)	11.5 kg, 215 mm centering diameter
Transport container	26 kg, 460 x 460 x 800 mm (l x w x h)
Tripod	8 kg, 300 mm diameter

Subject to technical change

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