

GYROMAT 5000

The Most Accurate Precision-Surveying Gyroscope in the World

The GYROMAT instrument series is a range of high precision surveying gyroscopes with band suspension, which are the result of more than 60 years of experience in the development and manufacture of gyroscopic measuring instruments. The fully automatic measuring procedure and measurement technique that has no any preliminary orientation provide the greatest accuracy in determining direction in those areas in which other methods cannot be efficiently used, for example in mining and tunnelling.

The GYROMAT 5000 is the latest product for high precision direction measurement with an accuracy of 0.8/1000th gon, which corresponds to a deviation in arc of about 1.2 cm over a distance of one kilometre. The time needed for measuring a single direction is only about 6 to 9 minutes. The new piezo drive with a high resolution angle encoder and the new energy concept with a reliable energy storage system and replaceable battery make the system faster, more reliable and easier to maintain. The option to add a theodolite or a total station as required enables the instrument to be used universally for geodetic applications or control work.

GYROMAT 5000

- Utmost accuracy
 - Shorter measuring time
 - Fully automatic measurement
 - No pre-alignment necessary
 - Individual theodolite mounting
 - Spare Battery
- Ergonomic design with only one rechargeable battery
 - More precise piezoelectric drive with high resolution angle encoder
 - Gyro measuring system with a reliable intermediate energy storage system
 - Wireless remote control and data transfer via Bluetooth®
 - Wired interfaces (USB / RS- 232) for control and data transfer
 - Menu-driven measuring sequence
 - Advanced monitoring



Technical specifications			
Measuring modes	1	2	3
Measuring accuracy in mgon *	0.8	5	2
Measuring time in minutes (approx.)	6-9	3-5	4-7
Measurements per battery charging	25	50	35
Operating temperature	-20 °C up to + 50 °C (-12 °C up to + 45 °C calibrated)		
Area of application	Between 80° south latitude and 80° north latitude		
Dimensions and weights:			
GYROMAT 5000 (without theodolite)	11.5 Kg, 215 mm centering diameter		
Transport case	Weight: 26 kg, (LxWxH) 460x460x800		
Tripod	Weight: 8 kg, 300 mm diameter		
*) Standard deviation ($\pm 1\sigma$) under lab conditions in accordance with DIN 18723			
Subject to technical changes			



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