

# Fully-Automatic Precision Surveying Gyroscope



**GYROMAT-2000**

DMT-Institut  
für Lagerstätte, Vermessung  
und Angewandte Geophysik



# Innovative development based on many years of experience

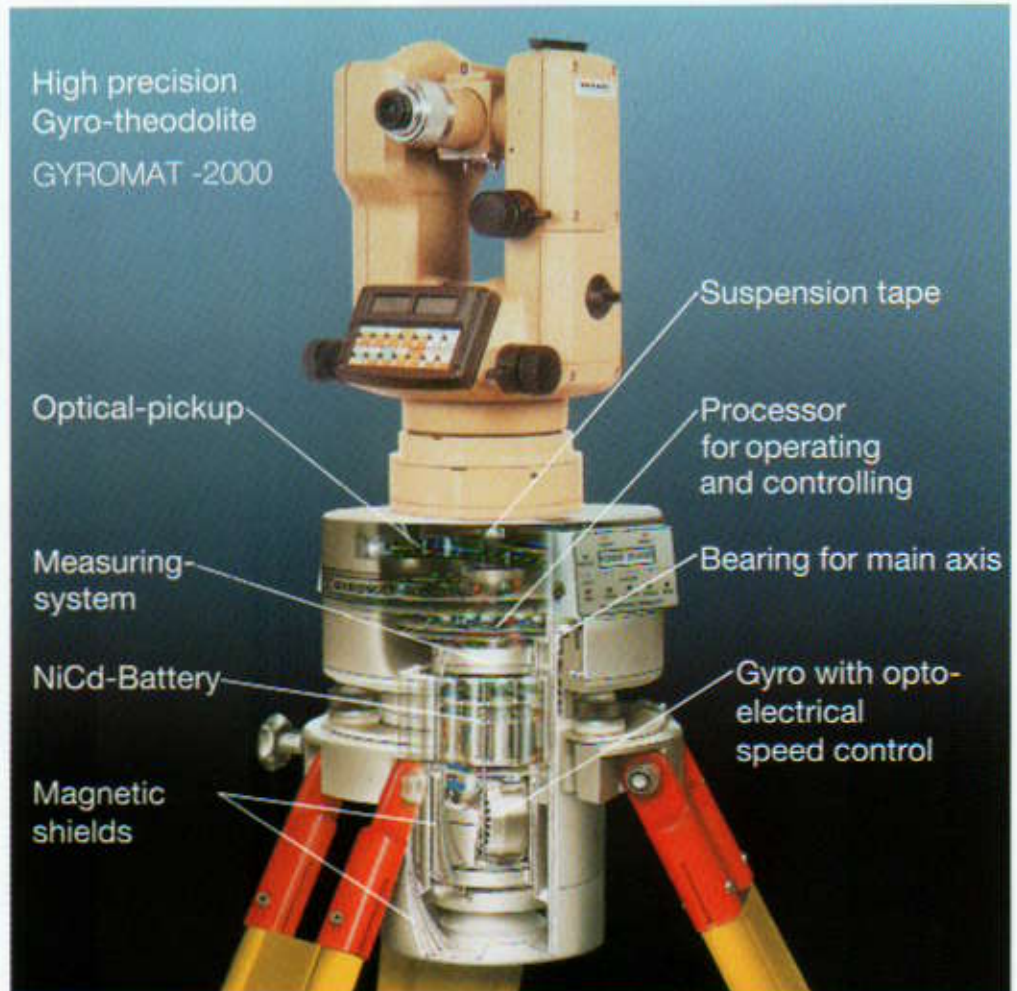
DMT DeutscheMontan Technologie offers 50 years of experience in the development and manufacture of gyroscopes.

Our latest top product is the GYROMAT-2000 gyrotheodolite with fully automated measuring procedure.

## Theory of operation

The GYROMAT-2000 provides for accurate direction measurements independent of the magnetic field of the earth. In its interior, a neutrally suspended, quickly rotating gyro oscillates about the north direction as a result of the interaction of gyro spin, earth gravity, and earth rotation.

From this oscillation, a special scanning system evaluates the north position fully-automatically and with the high accuracy of 1/1000 gon or 1.5 cm per km. For a direction measurement a time of 9 min is required.



The GYROMAT-2000 is produced according to latest state of the art technology for universal use in geodetic applications or control tasks.

The GYROMAT-2000 equipped with three measuring programmes is fully automated and does not require manual preliminary orientation.

# Highest measurement accuracy in a short period of time for precision and economic results



## Construction features of the GYROMAT-2000

- unit in single box version with integrated accumulator for 20 to 40 measurements
- two serial interfaces for the connection of a data memory and an electronic theodolite
- individual theodolite equipment
- integrated monitoring functions
- output of intermediate values, checking and reinput of the calibration constant, display of the available accumulator capacity
- automatic evaluation of individual target settings, automatic azimuth output
- two operating consoles in a diametric relative position
- menu-controlled measuring procedure
- comprehensive accessories.



- high measuring accuracy
- short measuring time
- fully automated measuring procedure
- integrated measuring data memory
- no preliminary orientation
- integrated measuring programmes
- individual theodolite equipment
- high operator convenience
- optimal price/performance ratio

# Technical Data

Measuring Mode	A	B	C
Measuring accuracy in mgon	1 (3')	5	10
Measuring time in min	9	5	2
Number of individual measurements	20	30	40
Operating temperatures	-20°C bis +50°C		
Operation region	up to the 80th degree of latitude		
Dimensions and weights:			
GYROMAT-2000 with theodolite	weight 16 kg 215 mm centering system		
Transport case	weight 9 kg (l x w x h) 300 x 300 x 710 mm		
Tripod	weight 9 kg diameter 300 mm minimum height 1000 mm		

Technical data, subject to change

**For More Information On:**

**GYROMAT-2000**



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