

GYROMAT 5000

Precision-Surveying Gyroscope



Optimized performances for
tunneling and mining applications



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 **TOPCON**

Measure true north regardless of environmental factors

The GYROMAT instrument series is a collection of high-precision surveying gyroscopes with band suspension. The fully automatic measuring procedure and measurement technique, which require no preliminary orientation, provide the highest accuracy in determining direction in areas where other methods are not efficient, such as mining and tunnelling.

The GYROMAT 5000 is the latest product for high-precision direction measurement, boasting an accuracy of 2.6" (0.8 mgon). This corresponds to a deviation in arc of about 1.2 cm over one kilometer. The time required for measuring a single direction is only about 6 to 9 minutes. The new piezodrive, with a high-resolution angle encoder, supported by a reliable energy buffer and exchangeable battery makes the system faster, safer and easier to maintain.

- » Utmost accuracy
- » Shorter measuring time
- » Fully automatic measurement
- » No pre-alignment necessary
- » Individual MS AXII mounting
- » Hot swapping battery option

The GYROMAT 5000 is fully compatible with Topcon MS AXII solutions, providing optimal performance for tunnelling and mining applications.

Measuring modes

Mode	1	2	3
Measuring accuracy (mgon)*	2.6" (0.8 mgon)	16.6" (5 mgon)	6.6" (2 mgon)
Measuring time in minutes (approx.)	6-9	3-5	4-7
Measurements per battery charging	25	50	35

Environmental

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

Physical

Dimension and weight	11.5 Kg, 215 mm centering diameter(GYROMAT 5000 without theodolite)
Transport case	Weight: 26 kg / Dimensions: (L x W x H) 460 x 460 x 800 mm
Tripod	Weight: 8 kg / Dimensions: 300 mm diameter

* Standard deviation ($\pm 1\sigma$) under lab conditions in accordance with DIN 18723 Subject to technical changes

Specifications subject to change without notice.

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