

Leica GeoMoS Monitor Data sheet



Versatile & powerful

GeoMoS Monitor is a sophisticated, yet straightforward automatic deformation monitoring software that is able to match the needs of any monitoring project – large or small, temporary or permanent. It is a central unit for data acquisition, processing and alerting of applications such as environmental and climate change, construction, natural resources or energy management monitoring.



Automatic & reliable

Leica GeoMoS Monitor supports multiple communication options, sensor control and scheduling and instant data storage and analysis. Automated data streams using numerous open interface standards enable simple, yet powerful sensor fusion and allow for comprehensive situation analysis. Accurate and reliable data acquisition is ensured via outlier detection, data validation, filtering and automatic remeasurement.



Sophisticated & customisable

Advanced mathematical computation and a combination of observations from different sensors ensure the most accurate stability of your monitoring reference. Customisable system status and limit checks of critical observations are sent out to inform those responsible on time. Use a messaging option of your choice, such as email or SMS, to notify people of deformation changes.

Leica GeoMoS Monitor

GENERAL

Project concept	Organise continuous, periodic or campaign monitoring in separate projects and run them individually or in parallel, even using the same sensors. Assign different user levels to individual projects.
Windows service	24/7/365 runtime of the automatic monitoring system.
SQL database	Store data in SQL database. Database import and export supported. Automatic database backup and archive. MS SQL Server Express version as part of the software.
Scalable & flexible	Multiple licensing options and combinations. Choose the options and number of sensor licenses for your project. Additional functionality can be easily added.
Sensor management & control	Connect and control sensors remotely and automatically. Advanced reset and error management.
Automatic measurement cycle	Sophisticated, simple and versatile measurement cycle scheduling of sensors and actions.
Open interface	Use GeoMoS API to read the data from the Leica GeoMoS Monitor database.

SENSOR SUPPORT

Total Stations	Leica TS60, TM50, TS50, TS15, TS16, TM30, TS30, TPS1100, TPS1200, TPS1200Plus, TCA1201M, TPS1800 and TCA2003 series
MultiStation	Leica Nova MS50, MS60
GNSS Sensors	Leica GNSS Spider post-processing and real-time products, NMEA GGA, NMEA GNS, GM10.
Campbell Scientific datalogger	Supports most commercially available geotechnical sensors (e.g. extensometers, piezometers, strain gauges, inclinometers, thermometers, barometers, rain gauges, etc.).
Geotechnical & environmental sensors	Meteo (Vaisala, STS, Reinhardt), rain gauge, water level, Disto sensors.
File import	Import images and numerical data from any sensor or software.
Levels	DNA, Sprinter
Webcam images	Store webcam images or send them to GeoMoS Now! web service.

COMMUNICATION

Leica M-Com	MonBox, ComBox, ComGate10
Various connection possibilities	LAN, WLAN, Radio, cable/serial, mobile (GPRS/UMTS)

FEATURES

Virtual sensors	Create a virtual sensor from existing observations (e.g. torsion).
Computation	TPS coordinates, 3D deformation, profiles, distance reductions and automatic measurements to reference point groups (Free Station, Distance Intersection, Orientation, PPM and Vz correction groups).
Limit checks	Assign limit checks to individual measurements. Four different limit check types available (absolute, short time, long time, regression).
Event management, messaging & conditioning	Assign an action or message to deformation, system health, communication and quality. Inform relevant parties. Apply conditions for professional messaging (SMS, email, digital I/O, SQL queries, execute application).
Scanning	Scanning functionality using the n.Vec technology supports the Leica Nova MultiStation MS50 and MS60.
Export to Adjustment	Use GeoMoS Adjustment for statistically optimised and validated network adjustment and deformation analysis.
Sensor diagnosis	TPS voltage readout, measurement cycle optimisation, power saving options.
Data push to GeoMoS Now!	View and analyse data locally or in the cloud using range of graphs, images, maps, tables and deformation scans. Send automatic reports to multiple users.

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