

Leica Geosystems Certificates



- when it has to be **right**

Leica
Geosystems

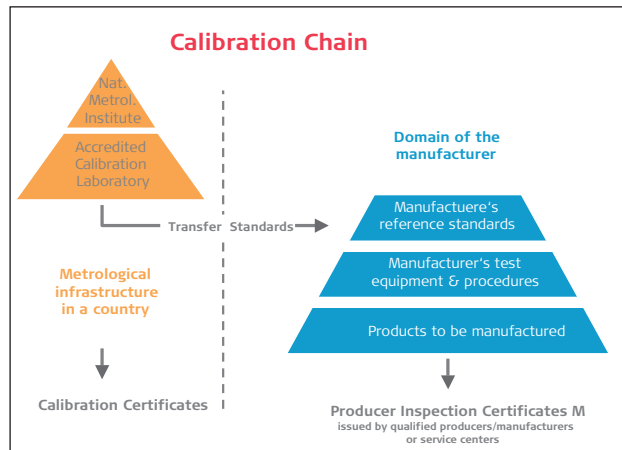
The overall demand for certificates confirming the measurement quality of new or used surveying equipment is increasing. This is mainly due to the fact that more and more surveying companies or their contractors are being ISO 9001:2000 certified and therefore need to confirm the accuracy of their surveying equipment periodically.

A number of certificates are available for Leica Geosystems total stations, digital levels and to some extent GPS sensors – for new equipment at the initial purchase or for used equipment at Leica Geosystems authorized Service Centers.

This document describes why certificates are needed, details the certificate offering, and helps to choose which certificate is the appropriate for which customers' needs.

Leica Geosystems Certificates

Leica Geosystems offers a large variety of Certificates at different levels: At the highest level Calibration Certificates are available, at the next level Producer Inspection Certificates M and Producer Certificates O and at the lowest level Service Certificates.



To issue the highest level of Certificates, the **Calibration Certificates**, a national accreditation of the calibration laboratory in accordance with ILAC (International Laboratory Accreditation Cooperation) and ISO/IEC 17025 regulations is required. This means that the certificate is internationally acknowledged and that test results are directly traceable to national standards.

Producer Inspection Certificates M are based on the manufacturer's defined standards and complies with the ISO 9001:2000 requirement of «control and monitoring of measuring devices». The reported test results are traceable to national standards or recognized procedures.

Producer Certificates O are based on the manufacturer's defined procedures and confirm that the individual product was inspected and that the published specifications were met at the time of inspection.

Service Certificates are issued at Leica Geosystems authorized service centers in combination with repair or maintenance to confirm that the individual product was checked and that the published specifications were met.

Calibration Certificates

Calibration Certificates confirm that the product was inspected and explicitly state the traceability to national standards, the uncertainty of measurement for each measurand (measured value) and compliance of the measurement values with the published product specifications at the time of inspection.

Calibration Certificates are not supplemented by detailed measurement reports.

Calibration Certificates are internationally acknowledged certificates that can only be issued by calibration laboratories with a national accreditation, indicated by the registered accreditation mark and number on the certificate document.

Calibration Certificates are required in measuring tasks for applications with public interest (e.g. public health, public safety, sports events, legal procedures).

Who can issue Calibration Certificates?

To issue Calibration Certificates a national accreditation of the calibration laboratory is required. Currently Leica Geosystems AG is the only manufacturer worldwide with an accredited Calibration Laboratory for both length and angles.

Therefore Calibration Certificates can be only issued in Heerbrugg, either at the initial purchase of the equipment or for periodic re-calibration.

The accreditation of Leica Geosystems as Calibration laboratory for length and angles (SCS 079) is in accordance with the standard ISO/IEC 17025 and is granted by the Swiss Accreditation Service. The ranges and best uncertainties of measurement are listed in the official SCS-Directory of the Accredited Calibration Laboratories. Detailed information can be found at: <http://www.sas.ch/en/sas-index.html>.

Currently Leica Geosystems has the following Accredited Calibration Laboratories:

- A measurement laboratory for the determination of the linearity and the zero point correction of a distance measurement.
- A 3000m baseline for the determination of the standard deviation of a distance measurement and for the verification of the zero point correction.
- A frequency measurement laboratory to determine the measuring frequency of the EDM at various temperatures.
- An angle measurement laboratory for the determination of the standard deviation of an angle measurement (vertical and horizontal).

For which products can Calibration Certificates be issued?

Calibration Certificates can be issued for all Leica Geosystems total stations that are currently in series production (excluding Builder total stations).



Who requires Calibration Certificates?

Based on national regulations Calibration Certificates are required by companies or departments that use surveying equipment in safety-relevant applications, applications of public interest (public health or safety) or whenever the results may be used in legal procedures (e.g. forensic applications).

Producer Inspection Certificates M

Producer Inspection Certificates M specify the measurement standard deviation and confirm that the individual product was inspected and that the published specifications were met at the time of inspection. Producer Inspection Certificates M include a product-specific summary of the relevant measurement values obtained, partly supplemented by measurement reports.

Producer Inspection Certificates M are defined by the manufacturer based on the manufacturer's defined standards and comply with ISO 9001:2000 requirements. The applied test procedures are traceable to national standards or to recognized procedures.

Who can issue Producer Inspection Certificates M?

Producer Inspection Certificates M can be issued at ISO 9001:2000 certified laboratories using test procedures which are traceable to national standards or recognized procedures.

Producer Inspection Certificate M can be issued in Heerbrugg, either at the initial purchase of the equipment or in combination with a repair, inspection or maintenance at the Central Technical Service Heerbrugg.

Producer Inspection Certificate M can also be issued in combination with repair or maintenance by selected authorized local Service Centers that are ISO certified and are equipped with the respective testing facilities and competencies («Lab Method»). However, the «Lab Method» for total stations is restricted to total stations with angular accuracy up to 1".

For which products can Producer Inspection Certificates M be issued?

Producer Inspection Certificates M can be issued for all Leica Geosystems total stations that are current in series production and for older total stations up to 5 years after production phase-out (excluding Builder total stations).

In addition Producer Certificates M can be issued for the digital level DNA03 (only at Heerbrugg, not available in local Service Centers) as well as for the GPS Systems 1200 and 500.

Who requires Producer Certificates M?

Every company or department that is either ISO 9001:2000 certified or contracted by a party that is ISO certified is obliged to fulfill the verification aspects of a "control of monitoring and measuring devices" system. The Producer Inspection Certificate M conforms with these verification aspects.

Producer Certificates O

Producer Certificate O confirms that the individual product was inspected and that the published specifications were met at the time of inspection. This Certificate does not include any measurement data or product specifications.

Who can issue Producer Certificates O?

Producer Certificate O can be issued in Heerbrugg, either at the initial purchase of the equipment or if the product designation (product type and serial number) is known up to six months after the product has left the factory. Producer Certificate O can also be issued in combination with repair or maintenance by all authorized Service Centers that are ISO 9001:2000 certified.

For which products can Producer Certificates O be issued?

Producer Certificates O can be issued for all Leica Geosystems total stations, digital levels and GPS systems that are currently in series production and for older products up to 5 years after phase-out.

Who requires Producer Certificates O?

Producer Certificates O can be used in specific areas to prove the applied duty of care in measuring tasks. However, they do not formally fulfill the verification aspects of a 'control of monitoring and measuring devices' system based on the ISO 9001:2000 requirements.

Very often Producer Certificates O are also accepted to confirm formal conformity in financing services (e.g. leasing contracts) or shipping declaration cases.

Service Certificates

The Service Certificate confirms that the individual product was checked and that the published specifications were met. Service Certificates do not explicitly show any measurement data.

Service Certificates are issued to the customer in conjunction with a repair, maintenance, or inspection carried out by a Leica Geosystems authorized Service Center.

Who can issue Service Certificates?

Service Certificates can be issued by all Leica Geosystems authorized Service Centers. Usually the Service Certificate is automatically created after completion of repair, maintenance, or inspection. In special cases Service Certificates can also be issued up to six months after the product was inspected (based on archived data).

For which products can Service Certificates be issued?

Service Certificates can be issued for all serviceable Leica Geosystems products.

Who requires Service Certificates?

Service Certificates can be used in specific areas to prove the applied duty of care in measuring tasks. However, Service Certificates do not formally fulfill the verification aspects of a 'control of monitoring and measuring devices' system based on the ISO 9001:2000 requirements.

Very often Service Certificates are also accepted to confirm formal conformity in financing services (e.g. leasing contracts) or shipping declaration cases.

	Calibration Certificate	Prod. Insp. Cert. M	Prod. Cert. O	Service Certificate
Authorized Leica Geosystems Service Centers				Always issued in combination with repair or maintenance
Authorized Leica Geosystems Service Centers with ISO 9001:2000 Certification			Can be issued in combination with repair or maintenance	Always issued in combination with repair or maintenance
Authorized Leica Geosystems Service Centers with "Lab Method" Infrastructure		Can be issued in combination with repair or maintenance	Can be issued in combination with repair or maintenance	Always issued in combination with repair or maintenance
Central Technical Service Heerbrugg	Can be issued in combination with repair or maintenance	Can be issued in combination with repair or maintenance	Can be issued in combination with repair or maintenance	Always issued in combination with repair or maintenance
Production Facilities Heerbrugg	Can be issued with with initial delivery	Can be issued with initial delivery	Can be issued with with initial delivery	

Restrictions

Due to legal restrictions it is not possible to issue more than one type of certificate with measurement results for the same instrument at the same time. This means, it is not possible to issue e.g. a Calibration Certificate and a Producer Inspection Certificate M for the same instrument at the same time.

Summary

Leica Geosystems offers a large variety of Certificates for surveying products:

At the highest level Calibration Certificates are available, at the next level Producer Inspection Certificates M and Producer Certificates O and at the lowest level Service Certificates.

It is very important to understand the individual customer requirements to choose which certificate is the appropriate one for which customers' needs.

Whether building a house or a bridge, a map or an aircraft, you need reliable measurements. So when it has to be right, professionals trust Leica Geosystems to help them collect, analyze, and present spatial information.

With close to 200 years of pioneering solutions to measure the world, Leica Geosystems is best known for its broad array of products that capture data accurately, model quickly, analyze easily, and visualize and present spatial information even in 3D. Those who use Leica Geosystems' products every day trust them for their dependability, the value they deliver, and the superior customer support.

Precision, value, and service from Leica Geosystems.

When it has to be right.

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**Total Quality Management –
our commitment to total
customer satisfaction.**

Ask your local Leica Geosystems
dealer for more information
about our TQM program.