

WYLER AG

Inclination measuring systems

Precise. Since 1928.

Electronic
inclination measuring systems

Inclination sensors

Measuring software

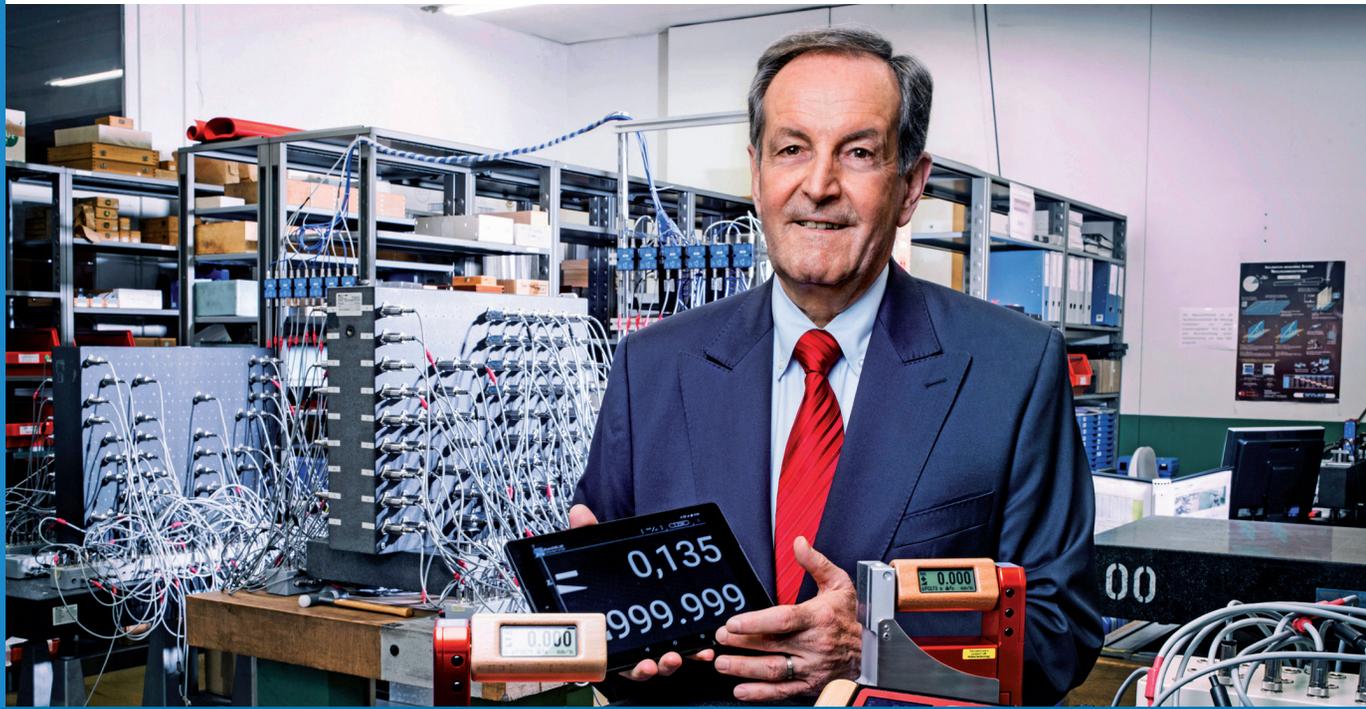
Precision spirit levels
and clinometers

WYLER



Heinz
Hinnen
CEO

WYLER AG



*"The country that has traditionally been particular about things,
and is thus synonymous with precision work around the world."*

Birthplace of groundbreaking metrological innovations in Switzerland, the country that has traditionally strived for ever greater exactness and is thus synonymous with precision work around the world.

We have consistently been on the right path with our innovations since 1928. In the process, our consistent attention to the wishes and demands of our clients has made a significant contribution.

The result is unsurpassed solutions in the area of electronic inclination measurement, inclination sensors, measurement software and precision spirit levels.

Heinz Hinnen

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3rd Edition



Imagevideo
WYLER AG



**Electronic
inclination measuring systems**



Inclination sensors



Measuring software



**Precision spirit levels
and clinometers**



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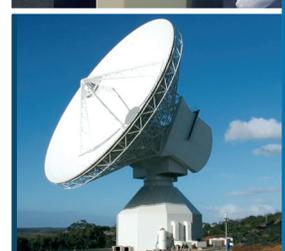
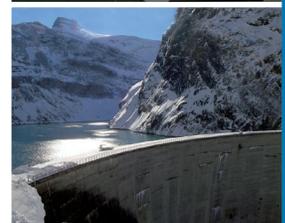


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"When it comes to physical safety monitoring of civil engineering structures such as dams, the highest level of reliability is required – here, WYLER products are an ideal addition to our own quality products."





**Urs
Marti**
CEO

Huggenberger AG
Horgen, Switzerland

Applications

Measurement Adjustment Monitoring

ELECTRONIC INCLINATION MEASURING SYSTEMS



DAMS



TRACK CONSTRUCTION

MACHINE TOOLS



ROADWORK

FLATNESS



CALIBRATION





YOU WILL ALSO FIND DETAILED INFO ON OUR WEBSITE:
WWW.WYLERAG.COM/EN/APPLICATIONS/PROJECTS

INCLINATION SENSORS



EQUIPMENT



RADAR STATIONS



STRUCTURES



BRIDGES



RADAR NAVIGATION



HIGH-SPEED PRINTING MACHINES

"If you are looking for high quality, you have come to the right place at WYLER."





**Matthias
Schutzius**

Head of Purchasing

Heidelberger
Druckmaschinen AG
Heidelberg, Germany

Electronic inclination measuring systems

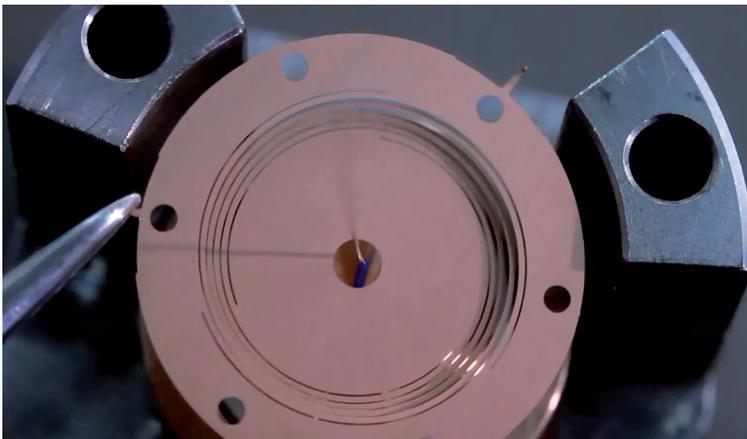




Electronic inclination measuring systems

The technical advancements in almost all sectors of industry have been accompanied by increasing demands on measuring devices used in inclination measurement. At WYLER, in addition to ongoing technological development, the use of high-grade materials and traditional fine craftsmanship also plays an important role. This is because we remain firmly convinced that precision has its genesis in the symbiosis of high-tech and craftsmanship. WYLER inclination measurement systems combine the highest possible reliability with maximal durability and functionality. Those are all qualities that one would rightly expect from a brand name. At the same time, the main focus is always on user-oriented solutions. It is not uncommon to see virtually one-of-a-kind solutions developed for unusual applications. That is what our clients greatly appreciate.

WYLER
**Precision products -
a symbiosis of high-tech
and craftsmanship**





CLINOTRONIC PLUS



CLINOTRONIC S



BLUECLINO



BLUECLINO HIGH PRECISION



NIVELSWISS-D



BLUELEVEL-2D



BLUESYSTEM SIGMA



Electronic inclination measuring systems

BLUESYSTEM SIGMA

The BlueSYSTEM SIGMA is a continuous further enhancement of the well known and well established measuring instrument MINILEVEL NT. A BlueSYSTEM SIGMA normally consists of two BlueLEVEL measuring instruments and an indicating unit BlueMETER SIGMA. This we call an ENGINEER SET. Depending on the application, the BlueMETER SIGMA can also be connected to a PC with evaluation software, allowing the on-line evaluation and presentation of the measured values.

The ENGINEER SET is the ideal tool for measuring flatness and machines under workshop conditions. Furthermore, the ENGINEER SET can be used for any levelling task or analysis of rotations. The ENGINEER SET is specifically adapted to the needs of the metrology specialist maintaining machine tool components. There is a broad range of applications due to the ability to use differential measurement. Thanks to its outstanding features and to the special transportation case, the ENGINEER SET can be used in-house or be taken along to customers. As its predecessor, this newest generation of high-precision electronic inclination measuring instruments is specifically suitable for the precision measurement of even the smallest of angles.

Applications are therefore in general the levelling of objects, and in particular the measurement of flatness of surface plates or the measurement of the geometry of machine tools. The sensor itself, the heart of every precision measuring instrument, has been further developed as well, to allow precise measurements even under critical environmental conditions.

BlueSYSTEM SIGMA is optimized for radio transmission of data.



BLUESYSTEM SIGMA
as an ENGINEER SET

The key features of our current series of instruments are:

- Compact and pleasant design, which is functionally optimized for precision measurement
- Radio data transmission based on the internationally approved Bluetooth™ standard
- Large and easy-to-read LCD display, which can be read from both sides since the handle can be rotated
- There are two sensitivities available:
 - BlueLEVEL 0.001 mm/m: range ± 20 mm/m
 - BlueLEVEL 0.005 mm/m: range ± 100 mm/m





Electronic inclination measuring systems

BLUESYSTEM SIGMA ENGINEER SET

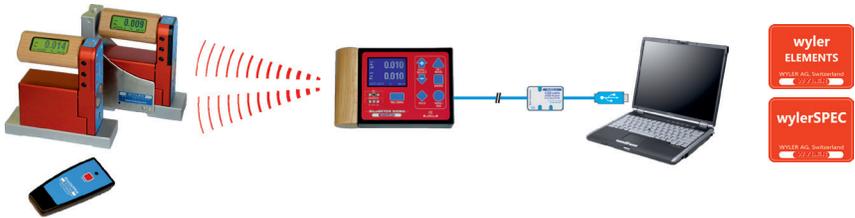
A ENGINEER SET, normally consists of two BlueLEVEL devices and one BlueMETER SIGMA, forming the ideal tool set for measuring flatness and machines under workshop conditions. Furthermore, the ENGINEER SET can be used for any levelling task or analysis of rotations.

The ENGINEER SET is specifically adapted to the needs of the metrology specialist responsible for maintaining machine tool components. There is a broad range of applications, owing to the ability to use differential measurements.

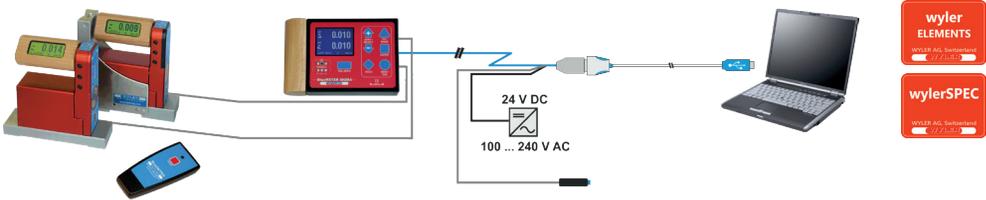
The electronic signal processing allows transmission of data to a computer where measuring software such as wylerELEMENTS or wylerSPEC is installed – with the corresponding display rendered in graphical and numerical form. As a result, complex measuring problems are much simpler to handle.



BLUESYSTEM ENGINEER SET
in combination with a Laptop and wylerSPEC software



Set with BLUELEVEL and BlueMETER SIGMA with wireless data transmission



Set with BLUELEVEL and BlueMETER SIGMA connected by cables



Electronic inclination measuring systems

BLUELEVEL-2D

The BlueLEVEL-2D is a high-precision and compact inclination measuring instrument for two axes. In spite of its small outer dimensions, the instrument contains two inclination sensors: one for the X axis, and one for the Y axis, together with a fully graphical and color 2D-display. Thanks to its precision and its size, the BlueLEVEL-2D is perfectly suited for the alignment of machines and machine parts.

This opens new applications and facilitates the alignment of machines and tools substantially:

- Alignment of machines in two directions simultaneously
- Alignment and measurement of reference plates
- Pitch and roll measurement on machines
- Alignment and monitoring of cranes, containers, trucks, etc.

Graphical 2D-display

The 2D-display shows graphically the position of an object in space, respectively the change of its position, and makes the information easily understandable. This substantially facilitates the alignment of a machine or reference plate, for example.

The following parameters can be set and changed on the BlueLEVEL-2D:

- Units
- Display of measuring range
- Type of display
- Filter settings

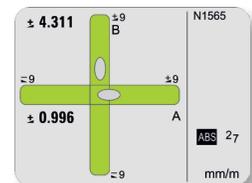
It is possible to send the measured data to a PC/laptop and there-with to the WYLER software wylerSPEC, wylerCHART and wylerDYNAM.



BLUELEVEL-2D

BlueLEVEL-2D has the following features:

- Rugged, rust-protected housing made of aluminium
- High-precision bases with three inserts made of hardened steel
Ø 20 mm with one M4 thread each
- Large and very easy-to-read color display
- Various display methods can be chosen
- All current units can be indicated
- Wireless communication, based on Bluetooth technology
- The instrument is compatible with the full range of WYLER digital sensors
- Powered by standard 1.5 V batteries, rechargeable batteries, or with main adapters
- The internal software allows a simple zero setting, using a reversal measurement
- Fulfils the strict CE- / FCC requirements (immunity / emission electromagnetic smog)
- Free app available for Android devices to use as a remote display
- Options:
 - External power supply 24 V
 - Cable to connect the instrument to a PC
 - Software to collect measuring data
 - Various attachable measuring bases on special request, such as prismatic





Electronic inclination measuring systems

NIVELSWISS (NIVELTRONIC)

Battery powered electronic inclinometer with analog display on a built-in galvanometer. The remarkable stability of the zero-point makes this instrument particularly suitable for long-term measuring tasks and for adjustment or alignment work on large guideways. The nivelSWISS is mounted in a rugged body of carefully treated cast iron.



NIVELSWISS is available in two versions:

- NIVELSWISS 50-H
HORIZONTAL VERSION
- NIVELSWISS 50-W
ANGULAR VERSION

Battery powered electronic inclinometer with digital display, which can be inclined to allow optimal readability from above. nivelSWISS-D is the consequent further development of the classic nivelSWISS:



NIVELSWISS-D is available in two versions:

- nivelSWISS-D
HORIZONTAL VERSION
- nivelSWISS-D
ANGULAR VERSION



Electronic inclination measuring systems and sensors

BLUECLINO HIGH PRECISION

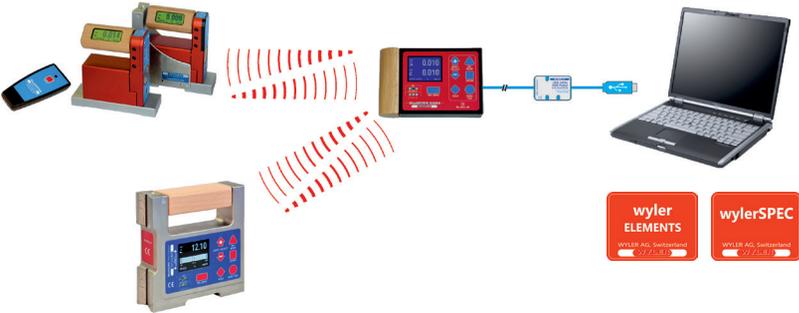
The BlueCLINO High Precision is based on the successful standard BlueCLINO. But, when it comes to the precise alignment of machine tool components, the standard BlueCLINO quickly reaches its limits. This is exactly where the new BlueCLINO High Precision comes into the picture: with a sensitivity of 0.005 mm/m and a measuring range of 20 mm/m (about $\pm 1^\circ$), as well as scraped bases (left and below), this instrument provides the necessary precision, which is required in precision machine tool building.



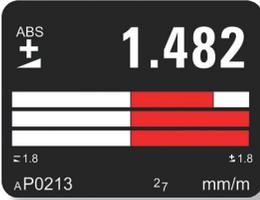
*BLUECLINO HIGH PRECISION with
prismatic bases made of cast iron*

Possible configuration with BLUECLINO HIGH PRECISION*:

* compatibility with the entire BLUESYSTEM product line
 * free App available for Android devices in order to use this as a remote indicator



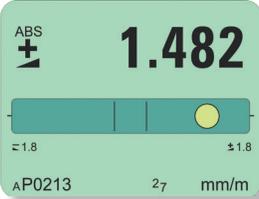
Numeric display plus bar graph



Numeric display plus 3 bars



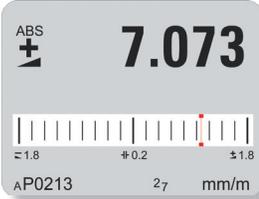
Numeric display plus LED display



Numeric display plus simple vial



Numeric display plus vial



Numeric display plus needle

Various display methods such as bar graphs or spirit levels can be chosen.



Electronic inclination measuring systems and sensors

CLINO 2000

The CLINO 2000 is a precision handheld inclination measuring instrument fulfilling the highest standards.

The CLINO 2000 is designed as a standalone unit, but it can also be used together with a second instrument for measurements where a reference is required. Furthermore, it can be connected to a PC / laptop via a built-in RS232/RS485 interface. The measured primary values are compared to a stored reference curve in the CLINO 2000. This allows a very accurate calculation of the inclination.

This top-level inclinometer with large measuring range brings a great many advantages to the metrologist.





The most important of them are:

- Greatest precision over the entire measuring range from $\pm 45^\circ$, with integrated temperature compensation
- Easy zero point setting via integrated software application and reversal measurement
- Easy-to-use calibration option thanks to integrated software support and accompanying calibration assistance
- Large digital display with the option of setting all commonly used measurement units
- Ability to connect second device for difference measurement or of ZEROTRONIC sensors via the serial interface
- Sturdy, rust proof housing with prismatic bases
- The instrument is compatible with the entire range of digital sensors from WYLER AG
- Meets the strict CE norms (immunity from electromagnetic influences)
- Magnetic inserts are available as an option



Electronic inclination measuring systems and sensors

BLUECLINO

The BlueCLINO is based on the well-proven CLINO2000 and has the following features:

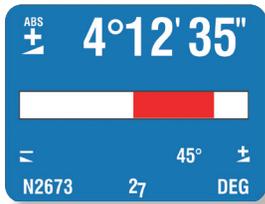
- With radio data transmission
- Large and very easy-to-read color display
- Various color profiles can be chosen
- Various display methods such as bar graphs or spirit levels can be chosen
- All current units can be indicated
- High precision over the entire measuring range of $\pm 10^\circ$ or $\pm 60^\circ$ with integrated temperature compensation



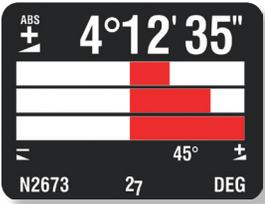
Two versions are available:
Rugged housing, with prismatic bases made of either aluminum hard anodized (left image) or cast iron, nickel plated (right image)

* compatibility with entire BlueSYSTEM product line

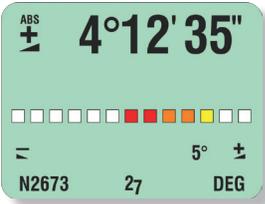
* Free App available for Android devices in order to use this as a remote indicator



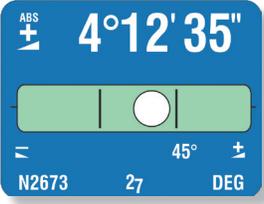
Numeric display plus bar graph



Numeric display plus 3 bars



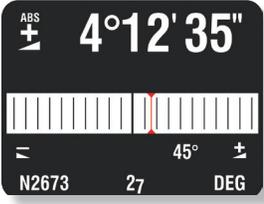
Numeric display plus LED display



Numeric display plus simple vial



Numeric display plus vial



Numeric display plus needle

Various display methods such as bar graphs or spirit levels can be chosen.



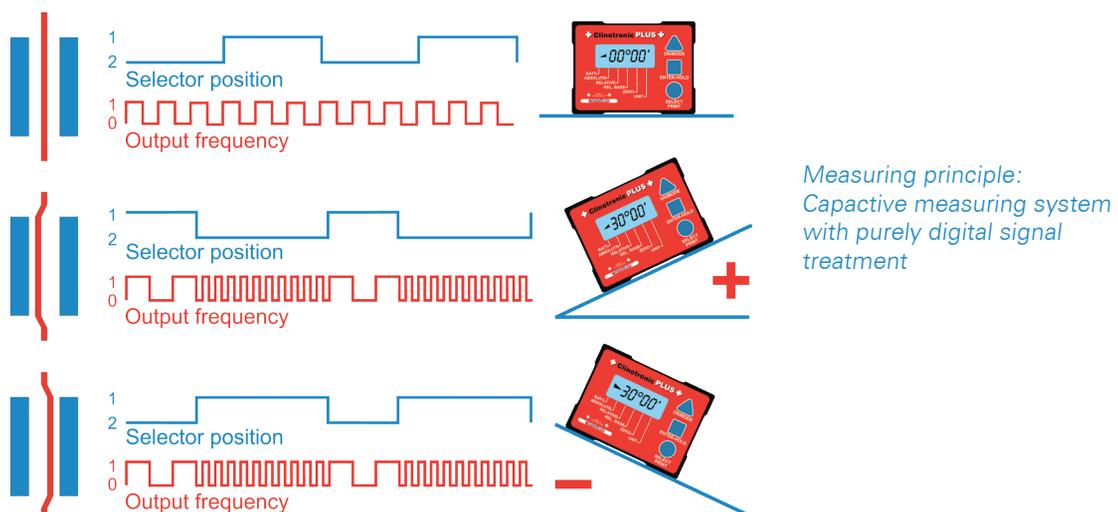
Electronic inclination measuring systems and sensors

CLINOTRONIC PLUS

The Clinotronic PLUS provides a measuring capacity of ± 45 degrees. Four precisely machined exterior reference surfaces assure accuracy and repeatability of measurements in any quadrant. Selected by push-button, any units suitable for inclination measurement may be applied to the display. Even slope indication based on a relative base of selectable length is possible. Simple push-button operation automatically sets absolute as well as relative zero. The RS485 interface allows a connection to other WYLER instruments or directly to a PC using a special cable.

The modern high-quality material used provides excellent stability as well as very good repeatability of the measured values. The housing (100x75x30 mm) is made of hard anodized aluminum and is resistant to chemicals commonly used in a machine shop.

All indicated values are, by integration of stored calibration values, computed prior to display. If required, an integrated calibration mode may be actuated in order to replace the stored calibration data (see next page).



If required, an integrated calibration mode may be actuated in order to replace the stored calibration data. For this purpose, the Clinotronic PLUS must, with the aid of suitable equipment (e.g. a Clinimaster), be accurately inclined, using 5° steps over the range of ±50°.





Electronic inclination measuring systems and sensors

CLINOTRONIC S

Clinotronic S is a precise instrument with wireless data transmission to measure inclinations. Clinotronic S is building on the success of the Clinotronic PLUS. It keeps those features of the Clinotronic PLUS, which made it famous, like its reliability and multi-purpose capabilities.

Wireless functionality

Clinotronic S can be connected to an Android™ or iOS™ device, which can then be used as remote display. This new feature makes the instrument much more versatile and opens new applications.

Excellent display

The large color display with low power consumption is backlit and has a high contrast. It therefore provides excellent readability even under adverse conditions like a workshop or under a machine.

User friendly

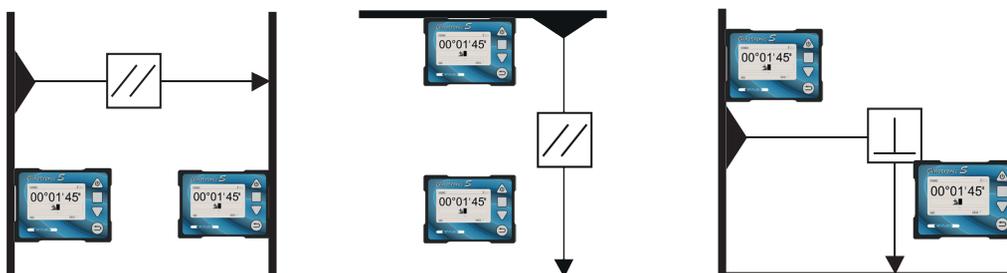
The completely redesigned Man-Machine-Interface allows a very intuitive handling.

Adjusted to local gravity

To ensure best possible accuracy the Clinotronic S can be adjusted to local gravity.

Wide versatility

All four precision surfaces of the Clinotronic S allow the measurement of parallelism as well as perpendicularity on e.g. vertical guideways or on presses





Recalibration

The wylerMASTER is designed exclusively to calibrate inclination devices of the typ Clinotronic S and Clinotronic PLUS with a measuring range of 45 °.



"We greatly value the ruggedness of WYLER tools since our service technicians travel the world with them in order to bring our machines into operation at client sites."





**Marc
Flückiger**
Head of Service

TRUMPF AG
Grüsch, Switzerland

Inclination sensors





Inclination sensors

There are products that carry a high degree of responsibility. But of course they are always backed up by people, teams, and a company. It is an exciting challenge to develop truly intelligent solutions. Creating the perfect solution requires even more. Because at what point does measurement achieve such perfection that one not only talks about a technology working, but that it virtually begins to think on its own?

With our advancements in the area of inclination sensors, we sometimes get the feeling that we have reached this aim. But then we once again recognize new potentials and development areas, and get down to work.

WYLER inclination sensors - technology that thinks.





ZEROTRONIC sensors with BLUETC



ZEROTRONIC sensors



ZEROMATIC two-dimensional inclination measurement sensor



CUSTOMER-SPECIFIC MEASURING SET WITH ZEROTRONIC SENSORS AND BLUETC FOR ADJUSTING PRINTING MACHINES.



Inclination sensors

INCLINATION SENSORS / GENERAL

There is an increasing demand for high-precision inclination sensors to measure the geometry of machines or to monitor machines and objects such as buildings, bridges, or dams over longer periods of time. WYLER AG offers two types of sensors for this purpose:

The ZEROTRONIC digital sensor family features a capacitive measuring system and a purely digital signal treatment. Due to its digital bus, it allows an error-free transmission of measurement values over long distances. Furthermore, its special measurement concept allows users to measure dynamically, within certain limits.

ZEROTRONIC family of digital sensors

The sensors of the ZEROTRONIC family have a capacitive measuring system with purely digital signal treatment and digital data transmission. They provide the option to compensate for temperature changes and allow data communication over long distances without any loss of data.

The combination of all these features ensures that these sensors fulfill the highest requirements regarding precision, resolution, sensitivity, and temperature stability.

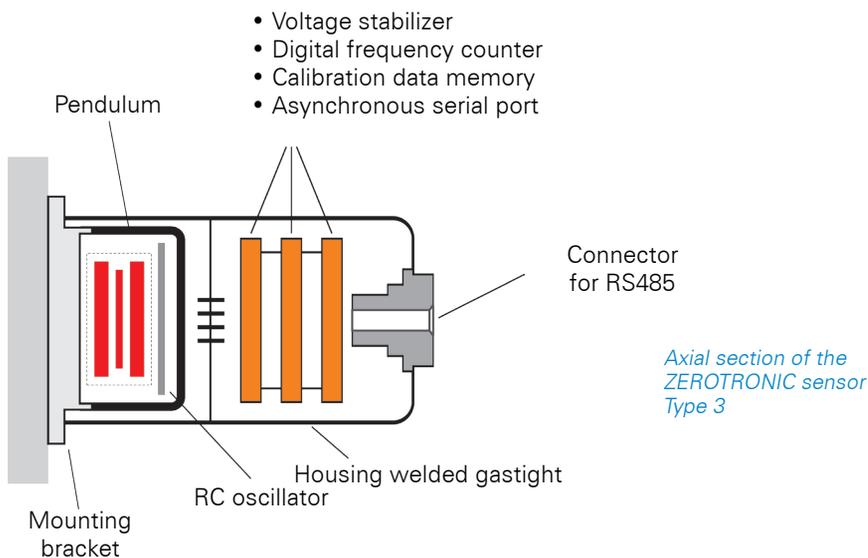


ZEROTRONIC sensors

ZEROTRONIC SENSOR

Inclination-measuring instruments or sensors are generally expected to function in all types of climatic conditions. Furthermore, shocks and vibrations should do no damage, and precision is expected over long periods of time, with possibly no maintenance at all. Meanwhile, the measuring range should also be as large as possible. Also, the size of the unit is expected to be quite small and the warm-up time should be negligible and, last but not least, power consumption should be low. The units should have excellent long-term stability, especially for the planned monitoring processes. Besides that, temperature sensitivity is expected to be no issue, and faultless transmission of data is required over long distances.

Based on existing expertise and good understanding of users' needs, WYLER AG has developed a generation of measuring instruments and systems of the highest precision in response to the requirements described above. The ZEROTRONIC product family fulfills the highest requirements concerning precision, resolution, sensitivity, and temperature stability. The use of digital technology allows the transmission of signals over long distances without loss of accuracy.



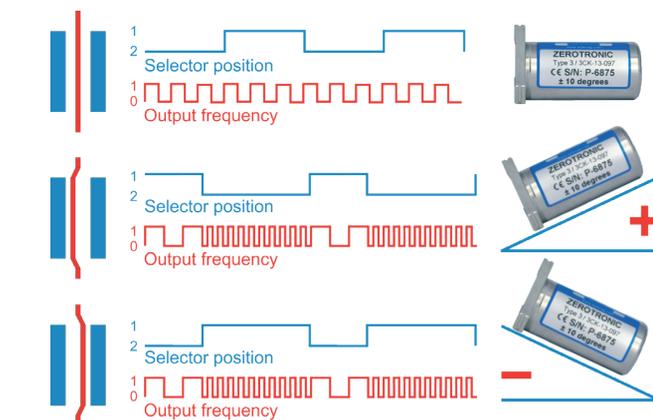
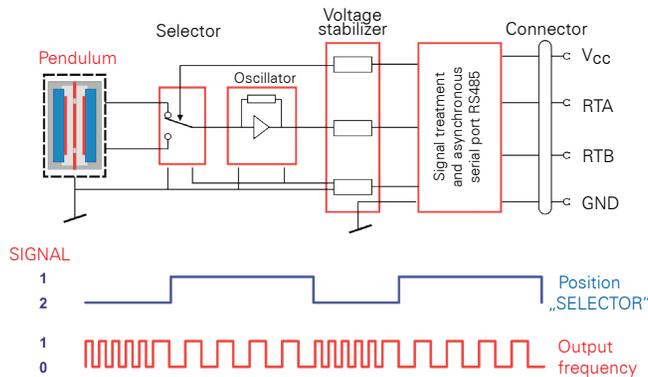


Inclination sensors

ZEROTRONIC SENSOR

The high stability and accuracy of the ZEROTRONIC-sensors is among others based on the fact that only one single oscillator is applied which is switched by a SELECTOR alternatingly to the two electrodes. This approach ensures that temperature influences can be minimised and the long term stability is optimised. The frequency-differences between the two oscillating circuits are measured digitally and out of these values the inclination is calculated.

Due to this concept the signal to noise ratio can be optimised and the inclination can be determined very accurately.



ZEROTRONIC sensors have established themselves in the market as the benchmark when it comes to high-precision inclination measurement in demanding applications. The ZERTRONIC family of sensors features the following characteristics:

- High resolution and high precision
- Excellent temperature stability
- Digital output:
RS 485 / asynchr. , 7 DataBits, 2 StopBits, no parity
- Measuring ranges of ± 0.5 to ± 60 degrees
- Synchronized registration of measuring values for several sensors
- High immunity to shock
- High immunity to electromagnetic fields



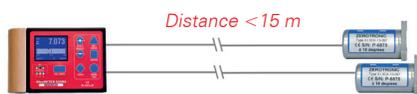
*Insight into the
ZEROTRONIC sensor
Type 3*



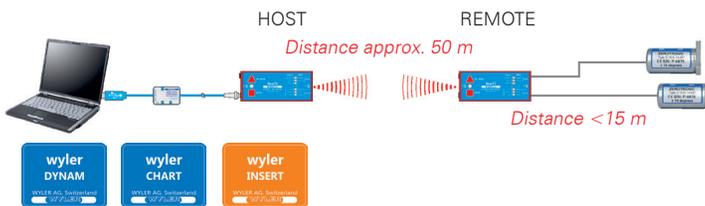
Inclination sensors

ZEROTRONIC SENSOR

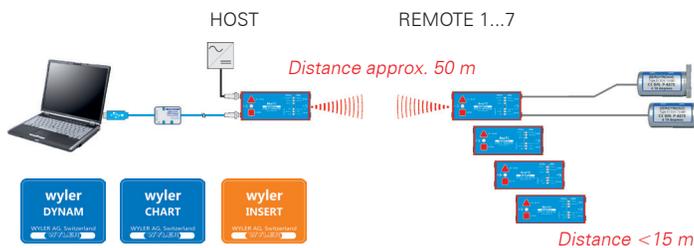
Possible standard configurations with ZEROTRONIC sensors:



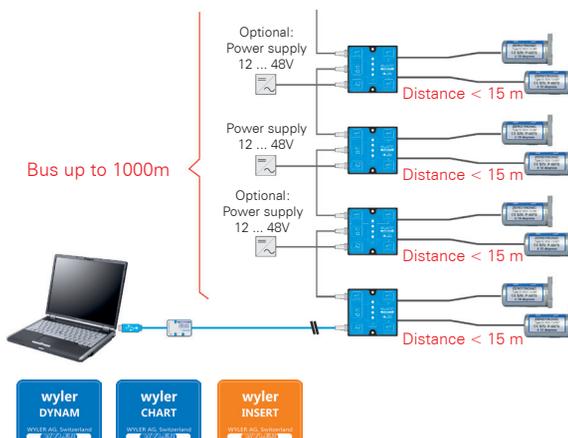
ZEROTRONIC sensors connected directly to a BLUEMETER SIGMA.



ZEROTRONIC sensors connected to a PC/laptop through two or more BlueTC.



The BlueTC is used as an interface for data transmission through a cable or radio connection.



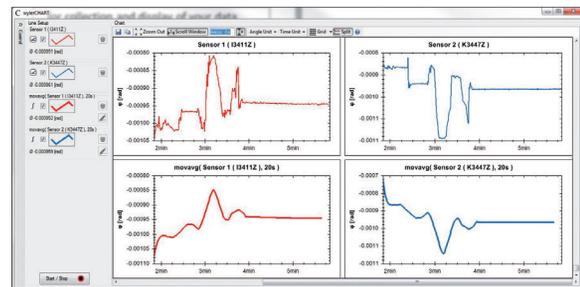
ZEROTRONIC sensors connected to a PC/laptop through one or more MultICs.

Basically the following three options are available at present for analyzing the measured values:

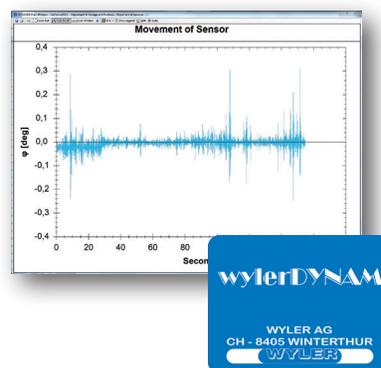
- Analysis with the BlueMETER SIGMA
- Analysis in combination with WYLER's WYLERCHART software
- Analysis in combination with WYLER's WYLERDYNAM software, a versatile software application for various measuring tasks



Manual analysis with a BLUEMETER SIGMA



Analyzing in combination with WYLERCHART



Analyzing in combination with WYLER'S WYLERDYNAM software



Inclination sensors

ZEROTRONIC SENSOR

Special applications with ZEROTRONIC sensors:

The ZEROTRONIC sensors feature a very compact design. Nevertheless, it is often necessary to mount the sensor in an even more limited space. Thanks to its modular design, special solutions can be developed.

① The example to the left shows ZEROTRONIC sensors that are mounted in a cylindrical form. In order to achieve this, the sensor unit and the electronic unit have been mounted separately on top of each other. One sensor is mounted along the X axis, the other one along the Y axis. Both sensors have a common electrical feed, and are linked with the RS 485 bus.

② The picture shows a 2D-sensor, which has been developed to measure the vertical spindle of a machine tool. The measuring fixture is suited for analyses of rotation "PITCH" and "ROLL" (both X and Y axes can be measured at the same time).

③ The two-dimensional LED-CROSS is very suitable for providing a visual indication of the inclination of a platform. Typical applications are:

- Monitoring of a crane for goods that are sensitive to inclinations
- Optical aid for manual hydraulic levelling of objects or platforms
- Monitoring of working platforms: preventing the platform from tilting, thanks to programmable alarms

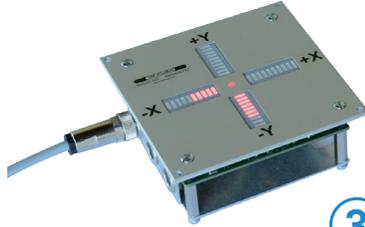
The above examples show that the application of ZEROTRONIC sensors is very flexible. Our engineers are interested in discussing your special applications and defining customized solutions for you.



1



2



3



DIAMETER OF THE UNIT IS LESS THAN Ø 35 MM

The picture (Fig.1) shows a 2D Sensor in a special housing to measure parallelity of various parts e.g. on a ship or on a machine.

When it comes to heavy duty applications, a special housing such as the one pictured (Fig. 2) can be used to protect the 2D sensor completely.

For heavy duty applications, all system components can be equipped with increased IP protection (Fig. 3+4).

Customized solution for the adjustment of printing machines with ZEROTRONIC sensors in specially designed adapters using BlueTCs for radio transmission (Fig. 5).



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Inclination sensors

ZEROMATIC SENSOR 2/1 + 2/2

The ZEROMATIC 2/1 and 2/2 two-dimensional inclination measurement sensors are perfectly suited for any application requiring the monitoring of the smallest changes in absolute inclinations over a longer period of time. The extremely high accuracy is achieved by measuring and compensating for any drift of the absolute zero by applying an automatic reversal measurement at defined intervals.

The ZEROMATIC 2/1 has one inclination sensor. Each reversal measurement provides a set of absolute inclination values in both the X and Y axes.

The ZEROMATIC 2/2 has two inclination sensors. It can therefore provide continuous values for the inclination along the X and Y axes. At defined intervals it will perform a reversal measurement and compensate for any offset.



ZEROMATIC 2/1 and ZEROMATIC 2/2

Typical applications are:

- Monitoring of critical machines (synchrotrons)
- Monitoring of buildings, bridges or dams
- Defining absolute zero references e.g. for radars

**The instruments have the following features:**

- LED showing the status of the instrument
- LED showing the position of the sensors during reversal measurement
- Rugged precision aluminum housing for protection against external influences
- Can be connected directly to a PC
- Optional network connection with TCP / IP protocol



"We are fans of WYLER products; thanks to their broad product range, we are able to find an optimal solution for every measuring task, no matter how complex."





Iris
Li
Product Manager

Dantsin
Technology Ltd.
Beijing, China

Measuring software





Measuring software

Software always has to be developed with the user in mind. That was apparent to us at a very early stage. And in recent decades that hasn't changed. Together with our clients and partners, we work continuously to optimize existing solutions. Every task, every new development inspires us, and is a fresh challenge to address determinedly and energetically, but also with the requisite patience and consideration. The highest precision is also an obligation in this regard.

It is our stated goal to always be ahead of the pack in terms of demands and developments in the market, and thus excite our clients with exceptional and user-friendly solutions.

**Clients justifiably
expect software
to be user-friendly.**





wylersOFT info center
(all software products of WYLER AG for inclination measuring instruments and sensors)



Measuring software

OVERVIEW OF WYLER SOFTWARE

In our continuous endeavour to provide not only high-precision instruments, but also measuring solutions, we are continuously further improving our existing software as well as developing new software. The purpose of these software products is to enable the user to solve his specific measuring task as efficiently and as accurately as possible. The following software packages are available:

Standard software packages that are used together with WYLER Engineering sets:



wylerELEMENTS

The software wylerELEMENTS is our standard software for measuring lines, flatness of surfaces, and geometry measurements, and is based on ISO 1101.



➔ You will find further details on the pages that follow.

wylerSPEC

The software wylerSPEC is the expanded version of wylerELEMENTS: wylerSPEC is an ideal tool for measuring and quality inspection on machine tools and their components.



➔ You will find further details on the pages that follow.

wylerINSERT

wylerINSERT is an easy-to-use yet powerful tool to read inclination values from WYLER BlueSystem devices and insert them into any program at the current position of the cursor just as if the values were typed in.





Software packages that are used together with WYLER inclination sensors:



wylerCHART

wylerCHART is an easy-to-use software package for displaying the measuring values of WYLER inclination measuring instruments and sensors. The measurement results are automatically read in a csv file and can then be further processed with EXCEL, for example.



➡ You will find further details on the pages that follow.

wylerDYNAM

wylerDYNAM software offers a wide range of solutions adaptable to all measuring tasks. With only a few clicks, simple measuring tasks can be started. Thanks to its great flexibility, even complex measuring tasks can be solved.



➡ You will find further details on the pages that follow.

WYLER software development kit

For customers intending to develop their own analyzing software for WYLER instruments, WYLER AG provides several software examples which explain how to interact with WYLER instruments or sensors either directly, or via a software interface developed by WYLER.



➡ You will find further details on the pages that follow.



Measuring software

wylerELEMENTS SOFTWARE

Analyzing in combination with wylerELEMENTS software

The wylerELEMENTS software is the advancement of the tried and tested LEVELSOFT PRO geometry measuring program. Lines and surfaces are measured and evaluated on the basis of ISO 1101 standards. The software is continuously adapted to the user's requirements.

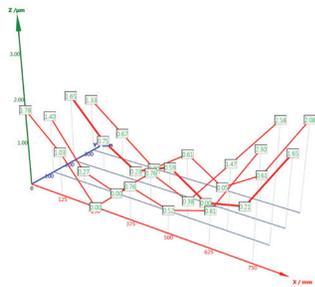
The following measurements can be performed with WYLER software for flatness and geometry measurements using wylerELEMENTS in combination with suitable measuring instruments:

- Lines (straightness)
- Lines with twist (torsion)
- Parallelism
- Squareness
- Measuring the flatness of surfaces
- Measuring of geometrical components on machines

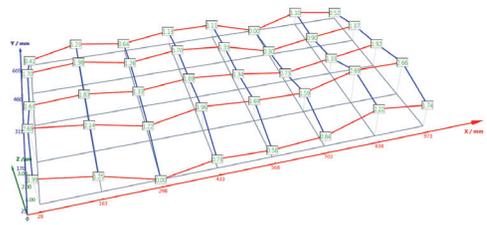


wyler
ELEMENTS
WYLER AG, Switzerland
WYLER

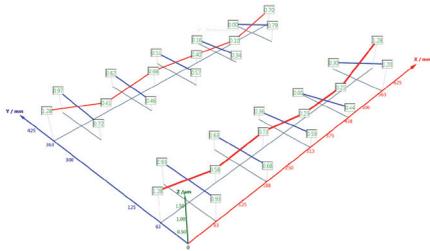
Straightness of lines with or without twist, in accordance with ISO1101



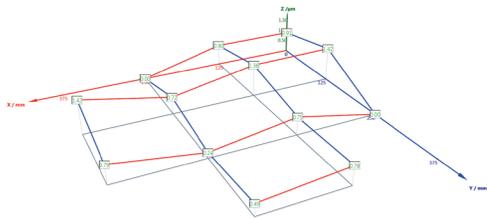
Flatness in accordance with DIN876 / ISO1101



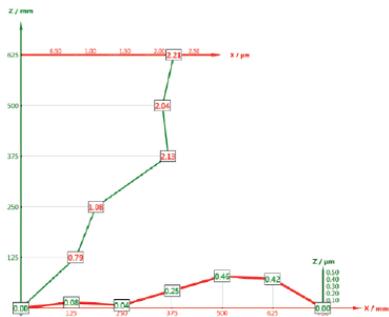
Parallels in accordance with ISO1101 with or without twist



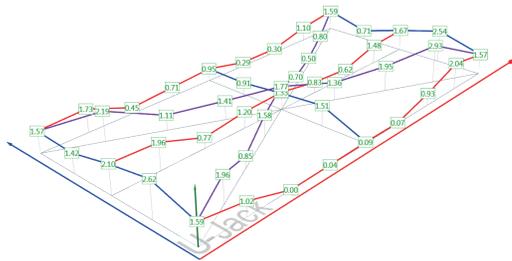
Flatness of partial surfaces in accordance with DIN876 / ISO1101



Squareness in accordance with ISO1101



Flatness in accordance with US STANDARD GGG-P-463c





Measuring software

WYLER**SPEC** SOFTWARE

Analyzing in combination with WYLER MT-SOFT software

Listening to customers, we learned that wylerELEMENTS had its limitations when it came to complex machines. The new wylerSPEC now allows users to go beyond these limitations.

For a highly skilled, specialized mechanics with extensive experience, it was quite clear how and where they were supposed to measure a machine tool in order to take the necessary corrective action – mostly by mechanical adjustment and by scraping. The objects machined today are becoming more and more complex, and quality requirements are increasing constantly. This situation has called for larger, more powerful and more complex machine tools with the respective requirements for higher accuracy. The geometry checking of a machine tool as a fundamental precondition for high-quality production takes testing staff and the classically used instrumentation to their limits.

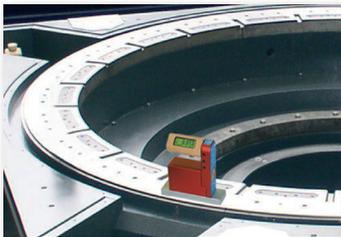
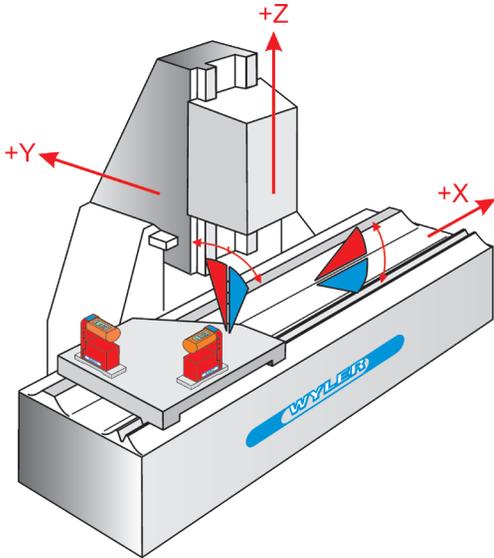
A number of methods are presently available for the determination of the total system error of a machine. It is, however, very demanding to determine the source of the possible errors in order to make the necessary corrections.

The major goal of developing the wylerSPEC software was to fill precisely this gap, and to supply engineers with a tool with which they can take the necessary measurements and actions – not only in the early stage of the manufacturing process of a new machine tool, but also during the final assembly as well as in the maintenance and repair phase.

The newly developed wylerSPEC software allows users to measure various geometrical elements of a machine independently with standard inclination measuring instruments. The individual measuring results can be saved and consolidated three-dimensionally, allowing the determination of the total error of the machine. A simple example of the great variety of options the software provides is the measurement of the vertical spindle in relation to a horizontal guideway of a machine tool. The logical layout and the clear structure of the software allows easy measurement of even complex machines.

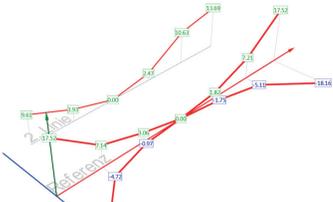


wylerSPEC
 WYLER AG, Switzerland
WYLER

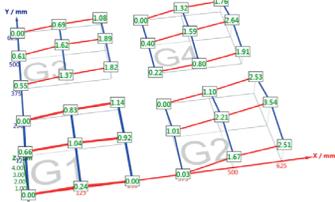
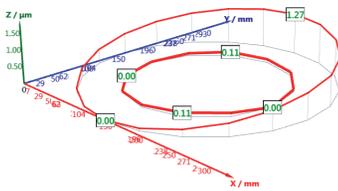


Partial surfaces

Guideways



Circles



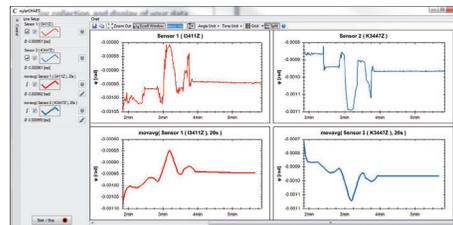


Measuring software

WYLERCHART + LABEXCEL CLINO (LABVIEW® APPLICATION)

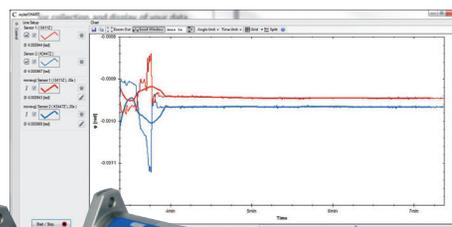
wylerCHART is an easy-to-use software package for displaying the measurement values of WYLER inclination measuring instruments and sensors. The measuring results can continuously be transferred into a csv file for further treatment, e.g. in EXCEL.

Up to 10 WYLER inclination measuring instruments or sensors can simultaneously be read into wylerCHART. In addition, users can choose to display the difference of the measuring values between any pair of inclination measuring instruments or sensors.



Display of each individual channel in split window mode

Display of all channels in main window mode



The **LabEXCEL Clino** software is an easy-to-use software package for displaying the measurement values of WYLER handheld measuring instruments belonging to the Clinotronic PLUS series. The software is based on the programming environment of LabVIEW™ by National Instruments. The core is the WYLER WyBus module. This module ensures the communication between the inclination measuring instruments and the user interface of LabVIEW™.

The measuring results can continuously be transferred into a csv file for further treatment, e.g. in EXCEL.





Measuring software

WYLERDYNAM SOFTWARE

A versatile software application for various measuring tasks

wylerDYNAM is used for evaluating and graphically representing the inclination of moving and static objects. Using the wylerDYNAM software, the measurement results of ZEROTRONIC sensors, Clinotronic PLUS measuring devices, and the BlueSYSTEM family of devices can be scanned. wylerDYNAM recognizes the desired measurement readings of the connected measuring devices, and supports their analysis.

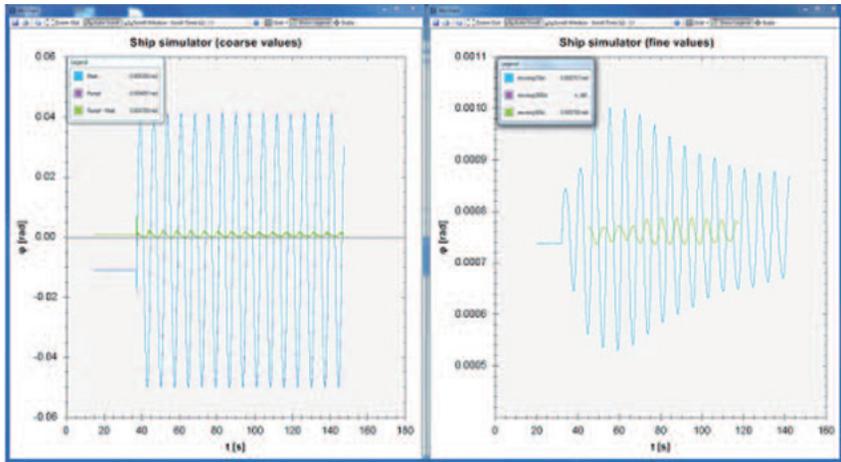
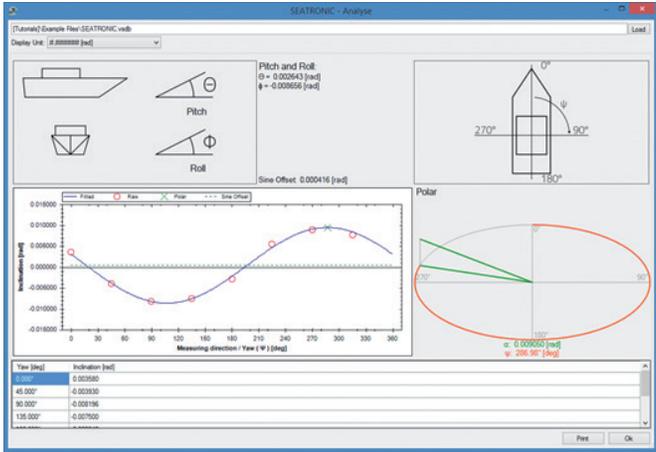
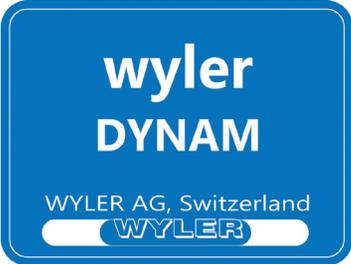
The assignment of measured values to the measurement instruments is done by its serial number. Any measured values can be calculated with each other and displayed in various forms or forwarded.

The results can be:

- displayed in numerical and graphical form
- cached
- transferred
- saved
- printed

without any programming knowledge and is completed quickly and easily.

wylerDYNAM enables the simple collection of periodic measurements for long-term monitoring of objects. With its very well structured user interface, its integrated tutorial, and its online guide, wylerDYNAM ensures an easy start for users of every ability.



Simultaneous measuring

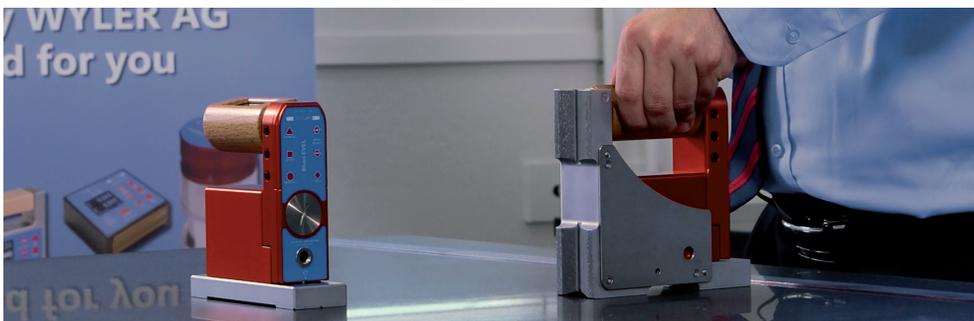
Customer training

CUSTOMER TRAINING

In metrology, a number of conditions must be fulfilled in order to achieve a valid measurement. A precision measurement is usually under the influence of a number of different factors, such as:

- Temperature of the object to be measured and the surroundings
- Temperature of the measuring instrument
- Linearity of the measuring instrument
- Vibrations
- Skills of the operator
- Cleanliness of the instrument and the object: dirt, dust, humidity, etc.
- Condition and accuracy of the measuring instrument and the measuring equipment, etc.

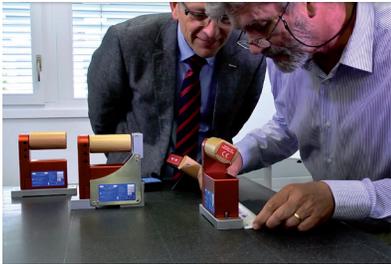
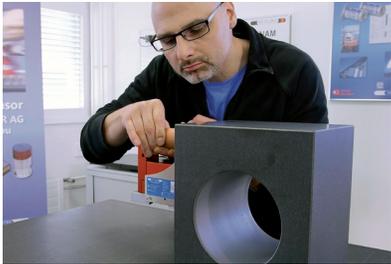
The sum of these factors is generally called measuring uncertainty. The measuring uncertainty to be assigned to a measuring value is an unavoidable result of every measurement. It plays an important role when a measuring value is close to a pre-defined limit value. A well-sustained uncertainty analysis is a sign of professionalism in metrology. The result of a measurement must be indicated, to be complete, as a combination of the measuring value and the assigned measuring uncertainty.





To assure our customers that their measurements are accurate, WYLER SWITZERLAND offers product training sessions together with their worldwide distribution partners. Such training is held in the seminar rooms of our distribution partners or on-site with the customers.

At this point we take the liberty to remind you that measuring instruments should be checked periodically. For this purpose, WYLER SWITZERLAND offers a MAINTENANCE CONTRACT for your measuring instruments.



*"We work with WYLER tools every day.
That's why it's important that they're easy to use."*

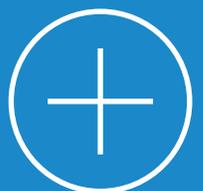


**Aleksandar
Granulic**
COO

ACUTRONIC
Switzerland Ltd.
Bubikon, Switzerland



Precision Spirit Levels and Clinometers





Precision Spirit Levels and Clinometers

Our clients' problem provides us with the task. Together, we put everything in motion so that our clients are completely satisfied with the results achieved. And those results are often incomparable.

A measurement tool needn't always be electronic. Our precision spirit levels are still highly prized by many of our clients. It's a reason for us to spur on continuous development here as well. But the thing about our products that our clients value above all is the opportunity to have a complete solution. Today we are professional suppliers of complete solutions, something that we will continue to intensify in the future. When we can contribute our expertise toward solving sophisticated technical challenges, it makes us rather proud as well.

**Standard products,
or complete solutions?
Just as you require.**

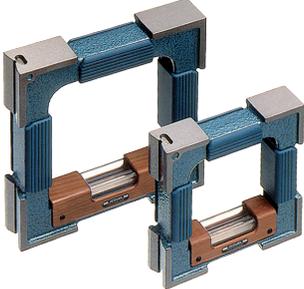




Horizontal spirit levels



Magnetic spirit level



Frame spirit levels



Clinometers for large angles $\pm 180^\circ$



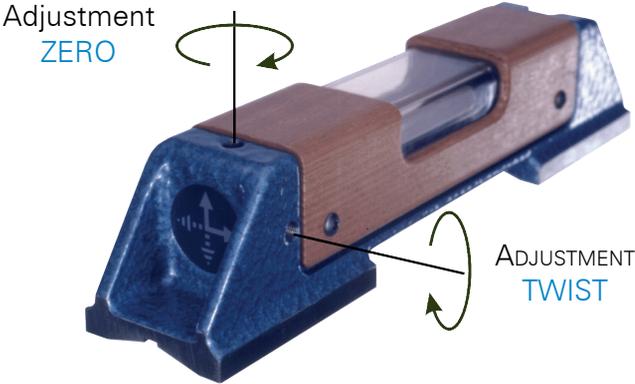
Precision spirit levels and clinometers

PRECISION SPIRIT LEVELS / CLINOMETERS

With the advent of the electronic age, the classic spirit level was expected to be outdated. Despite this, the spirit level is widely used and prized as a precision measuring instrument. Specialists in the measuring field expect a measuring instrument to be easily understandable, simple to use, and reliable. All these expectations as well as excellent cost effectiveness are fulfilled by the spirit level. The heart of the spirit level is the vial.

The precision of the spirit level is heavily influenced by quality and the sensitivity of the vial. If a spirit level with a sensitivity of 0.020 mm/m is inclined in such a manner that the bubble in the vial travels from one line to the next (the standard distance from one line to the next line is 2 mm), then the spirit level was inclined by 20 μm in relation to 1000 mm.

The medium- and high-sensitivity vials are ground on the inside like a barrel. The radius of this barrel side conforms to the desired sensitivity and comes to about 200 m when the vial has a sensitivity of 0.010 mm/m. The radius is about 5m when the sensitivity is 0.500 mm/m.



The user has the ability to adjust the ZERO as well as the TWIST thanks to a simple adjustment system.



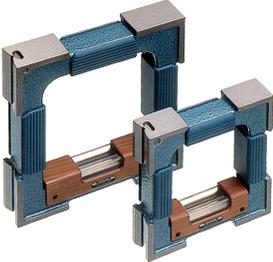
Horizontal spirit levels for small angles



Adjustable Micrometer spirit level 68



Cross spirit level



Frame spirit levels for small angles



Clinometers for large angles up to $\pm 180^\circ$



Precision spirit levels and clinometers

SPECIAL APPLICATIONS WITH HIGH-PRECISION SPIRIT LEVELS

We do suggest custom-made spirit levels to cover the requirements of your special applications. You benefit from 80 years of experience in design and manufacture of precision spirit levels.



Here WYLER AG specialists scrape the base of instruments



*"For us precision scrapers, repeat accuracy is crucial.
That's why we use WYLER tools."*



Sepp
Pfyl
CEO

SchabTech AG
Brunnen, Switzerland

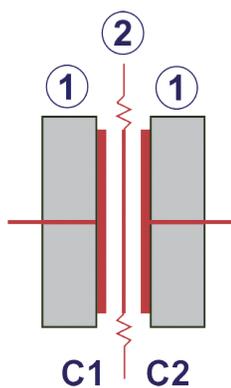
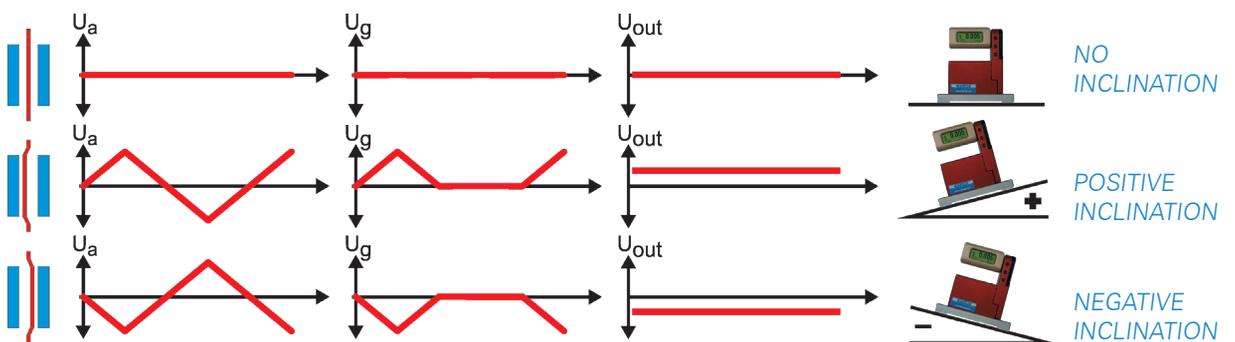


WYLER Precision

Measuring systems analog

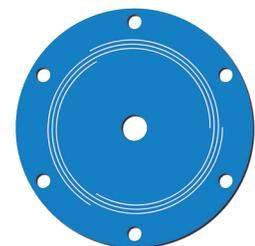
CAPACITIVE MEASURING SYSTEMS ANALOG

Measuring principle: These electronic levels are based on the pendulum properties of a friction-free supported disc of mass. A frequency is supplied to two ceramic and copper plated electrodes, which together with the pendulum disc supported in the shielded and dust proof gap between them, build a differential capacitor which delivers the angular signal. This unit is encapsulated and protected from outside electronic influence.



1: Electrodes based on ceramic

2: Pendulum



Pendulum



BLUELEVEL with
angular measuring base



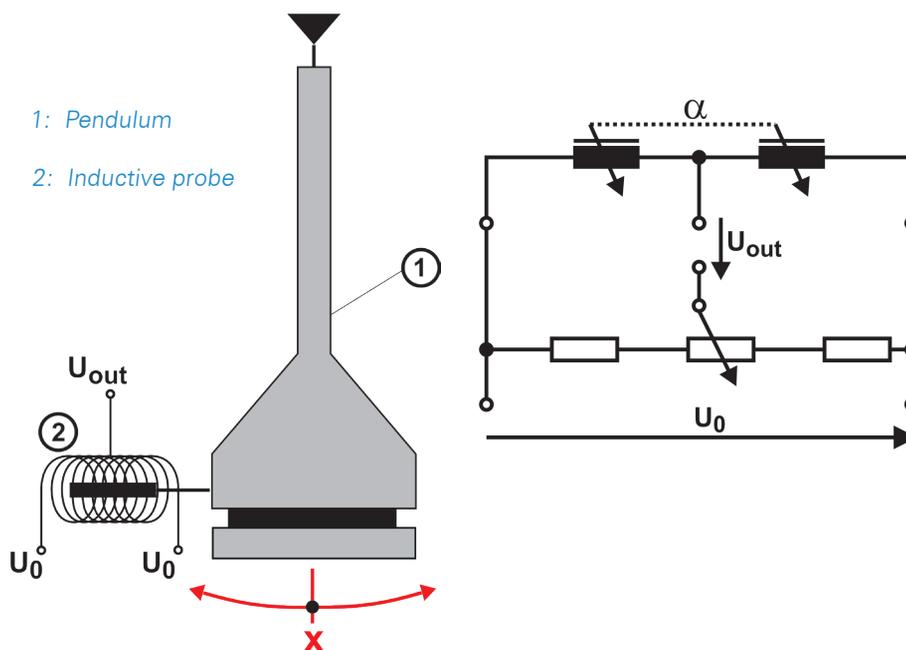
BLUELEVEL with
horizontal measuring base



Measuring systems analog

INDUCTIVE MEASURING SYSTEMS ANALOG

Measuring principle: The electronic inclination measuring instruments use a friction-free suspended pendulum. At the end of the pendulum a ferrite core is fastened which penetrates a double wound coil fed by alternating current (principle of an inductive probe). The output voltage is directly related to the instrument's inclination.





niveISWISS-D
angular version

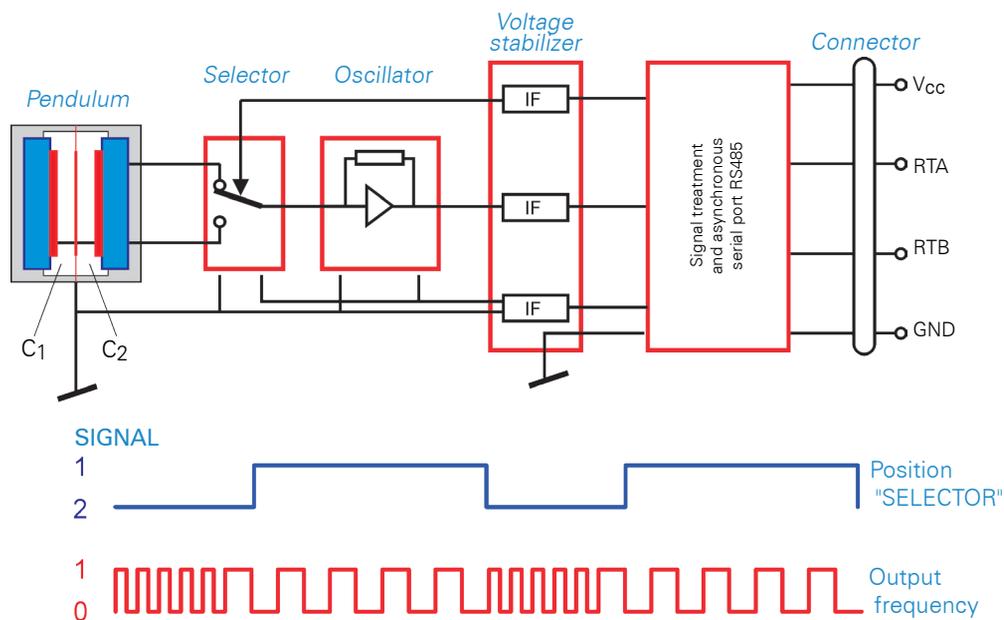


niveISWISS
angular version

Measuring systems digital

CAPACITIVE MEASURING SYSTEM WITH PURELY DIGITAL SIGNAL TREATMENT

Measuring principle: The pendulum, suspended by the Archimedes helical spring, is mounted between two electrodes. Depending on the inclined position of the system, the pendulum will swing out of the zero position and in doing so change the capacity between the pendulum and the two electrodes. These capacities are transformed into different frequencies through the RC-oscillator. The ratio of the two frequencies returned is used as the primary signal for detecting the required angle.





BLUECLINO



CLINO 2000



CLINOTRONIC PLUS



BLUELEVEL-2D



ZEROTRONIC SENSORS

Ideally, the mechanical dampening of the pendulum's movements is provided by gases, normally by nitrogen. The viscosity change of gases in the temperature range between -40°C and $+70^{\circ}\text{C}$ is marginal. Therefore, dampening with gases is superior to dampening with other substances such as liquids. The best possible results in dampening are achieved by the ratio between the surface of the pendulum and the size of the aperture of the Archimedes helical spring. In addition, mathematical smoothing can be done by integrating the results over a period of time. This is highly scalable by adjusting the individual parameters.

Depending on the switched-on electrode and the resulting capacity, one RC oscillator supplies the required frequency between 250,000 and 350,000 Hz. Because of the alternating engagement of both of the electrodes through a selector switch and always using one oscillator only, it is assured that the temperature influence is limited to a minimum. This configuration has proved to be superior in terms of long-term stability over other existing applications. The short distances between the electrodes and the oscillator and the stable connections between the critical electronic elements further improve the system's capability.

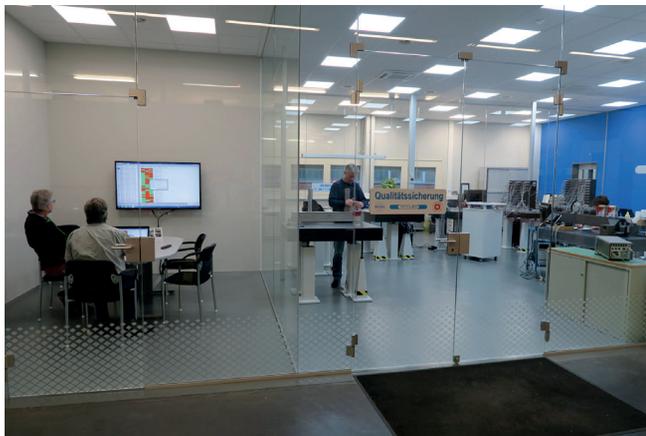
The frequency difference of approx. 100,000 Hz assures that, even when a high measuring rate is applied (numbers of measurements per second), an excellent resolution is available. Most of the existing measuring instruments have an output rate of ± 2 Volts. This output rate is equal to a possible $\pm 2,000$ digits. This is certainly not enough for accurate measurements. The implemented calibration curve, stored in the sensor's head allows easy calibrating and leads to excellent results even when using large angles.

Calibration Laboratory QA/SCS

CALIBRATION LABORATORY SCS / EN / ISO/IEC 17025

For more than 75 years, WYLER AG SWITZERLAND has specialized in the development, production, and distribution of precision instruments to measure inclination. The wide range includes various lines from high-precision spirit levels through to hand-held electronic inclinometers, and high-tech sensors for measuring angles in a digital bus system. Continuously increasing quality expectations, as well as the demand for traceability of the measuring values and calibration data led to the application for accreditation as a calibration laboratory at an early stage. This accreditation was granted by METAS / Metrology and accreditation Switzerland for the first time in 1993, under their registration number SCS 044.

The Swiss Accreditation Service confirms that a laboratory which is accredited in accordance with standards ISO/ IEC 17025 operates a quality system for its testing and calibration activities that also meets the relevant requirements of ISO 9001:2000 for the scope of accreditation type C and ISO 9002:1994 for type A and type B. Further, standard ISO/ IEC 17025 covers several technical competence requirements that are not covered by standards ISO 9001:1994 and ISO 9002:1994.



Declaration of Conformity

All our products are delivered with a Declaration of Conformity stating that the product meets the applicable standards as well as the technical specification published in our sales documentation.

CALIBRATION OF MEASURING INSTRUMENTS

The SCS Certificate

The measuring instruments, surface plates, and setting angles are inspected and certified according to the relevant standard. The certificate issued consists of a confirmation that the measuring object is in accordance with the respective standard, that it has been measured and certified according to the procedures prescribed by METAS / Metrology and accreditation Switzerland. All the respective traceable measuring results are part of the certificate. The calibration of high-precision inclinometers requires high-quality measuring equipment and environmental conditions. Our climate-controlled calibration lab is equipped with special measuring and calibration equipment certified by METAS / Metrology and accreditation Switzerland, and thus covers a wide variety of requirements. The calibration range for instruments and sensors ranges from insignificant angles (0.2 arcsec) to the full circle (360°).



Calibration of setting angles and surface plates (of granite or cast iron)

Surface plates are the basis of high-precision measurements in production as well as in laboratory areas. Often this fact is not sufficiently taken into account, and the surface plates do not show the surface quality required for the measuring precision expected. Frequently the granite surface plates become worn, and thus falsify the measuring results.



This uncertainty can be eliminated by a periodic calibration of the surface plate and corrections where necessary. Most quality certificates require a valid calibration certificate for the measuring equipment used in order to be accepted.



"For us, WYLER AG is a problem-solver."





**Udo
Schietinger**
Manufacturing

Gebr. Heller
Maschinenfabrik
GmbH
Nürtingen, Germany

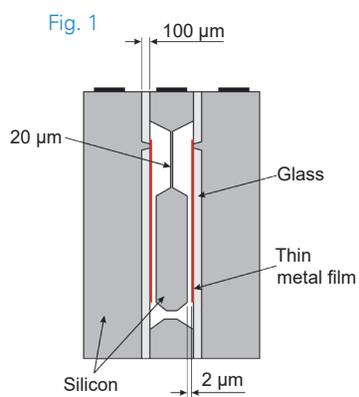
WYLER Technologies

Development

MEASURING INSTRUMENTS AND SOFTWARE

New concepts for hardware and software solutions are developed at WYLER AG in teams, and are thereafter implemented with clear goals. Thereby, the latest findings in the technology of inclination measurements are incorporated. But technological change isn't limited to inclination measuring instruments: today's requirements of user friendliness and reliability have an influence on R&D and production even for ostensibly simple products like spirit levels.

The complexity of today's electronic instruments and the growing requirements regarding the respective software demand clear strategies for their realization. It is the policy of WYLER AG to apply ample investment in R&D to ensure our long-term leading position in this niche market.



Semiconductor-sensor with classic pendulum system

Fig. 2



Semiconductor-sensor based on the WYLER measuring system



Several new systems for electronic inclination measurement instruments based on semiconductor technology are in the market introduction phase.

The following three technologies are used in our products:

Semiconductor-sensor with classic pendulum system and capacitive measurement. This technology is already in use in certain WYLER instruments with a measuring range greater than or equal to $\pm 10^\circ$. The sensor measures roughly 1.1 x 1.2 mm (figure 1).

AIM (Air gap Isolation of Microstructures) semiconductor sensor, based on single-crystal silicon. This technology allows high precision combined with low hysteresis and low temperature dependency.

Semiconductor-sensor based on single-crystal silicon with the reliable WYLER measuring system consisting of two electrodes and the WYLER pendulum. This technology is used for instruments with the highest requirements regarding accuracy, repeatability, low temperature dependency, and long-term stability (figure 2).

In the area of application software, the focus for new development is on user friendliness, the design of the GUI (Graphical User Interface) and easy analysis of the measuring data. Existing software products are continuously adapted to the market requirements, and new modules are added.

Manufacturing

MANUFACTURING AND QUALITY

WYLER products are frequently used in safety-related applications around the world. That is why all of our expertise, along with the highest degree of reliability and durability are built into each of our products.

Before they leave our facilities, each of our products is subjected to quality testing in the form of durability tests conducted under real-life working conditions. Only careful long-term testing in conjunction with the highest quality measuring devices will guarantee a consistent level of quality.

Our qualification as a calibration center is a testament to the high degree of focus we put on precision. As a result of this, we have the most precise measuring tools anywhere. If you work with straight lines, planes, and perpendicularity, you can always rely on WYLER to meet your every need.





All the significant quality-determining processes are carried out in our own company facilities. The entirety of the mechanical production and product testing takes place in climate-controlled work areas. For individual special processes, or for certain production methods that cannot be effected at WYLER AG, we rely on long-standing connections with qualified partners.

Our company puts great stock in the quality of our products and services (see mission statement). At WYLER AG, our focus on quality isn't restricted to just the production area, but is instead viewed as a company-wide duty.



Service

WYLER REPAIR SERVICE

1. Products under warranty:

Since January 1, 2007, WYLER AG has absorbed shipping costs to and from Switzerland for products exhibiting errors during the warranty period.

I. WYLER only absorbs the shipping cost, and the cost to import the instrument into Switzerland.

II. Our representatives will absorb the cost of re-importing the instrument into their country. They will be responsible for defining the paperwork to ensure a cost-efficient process considering the local rules and regulations.

III. In countries where WYLER does not have a representative, the cost for re-importing the instrument into the country must be absorbed by the customer

IV. The final decision as to whether or not a specific case is a justified warranty issue remains with WYLER

2. Products no longer under warranty:

If a product becomes defective after the warranty period, the customer will be required to pay for shipping. In order to reduce the distance to WYLER, we would like to make sure that a customer from Asia or South America has the same short distance to WYLER (in terms of shipping costs) as a European customer, and therefore offer subsidized shipping costs for customers outside of Europe:

Shipping costs under the cooperation agreement with TNT:

(max. amount worldwide):

- | | |
|---|--------------------|
| • Clinotronic PLUS | CHF 90.- each way |
| • CLINO 2000 | CHF 125.- each way |
| • Single instruments (MINILEVEL/ BlueLEVEL) | CHF 150.- each way |
| • ENGINEER SET | CHF 150.- each way |
| • nivelSWISS | CHF 200.- each way |

Prices as per November 1st, 2012.(We reserve the right to adjust our prices at any time)



WYLER AG has a strong and transparent service philosophy: Our customers should feel that:

"There are no problems with WYLER products, and in the rare case that there is a problem WYLER solves it efficiently and to my full satisfaction."

We would like to make it as easy as possible for any WYLER customer - wherever in the world he is - to deal with us.

3. Reduced turn-around time for repairs:

Many customers are very dependent on their instruments, as they use them daily. They can therefore not do without them for a long period of time. In such cases, WYLER AG, in cooperation with TNT, has implemented an Express Repair Service, called ERS. Employing this service, the total turn-around time including the transport from and to WYLER can be reduced considerably.

The process looks as follows:

- The customer announces the repair request to the local WYLER partner in his country
- The WYLER partner informs the customer about the conditions and advantages of the ERS:
 - reduced turn-around time
 - required acceptance to repair without quote up to 65 % of the price for a new instrument
 - Transportation with TNT
- Afterward, the customer will receive all information and instructions necessary for smooth handling. The customer only has to pack the product suitably, fill in a form for the TNT courier service, and notify the local TNT office when the item is ready for pick-up. Everything else will run automatically.
- Products reaching WYLER under this ERS service will be given priority handling, and the instrument will be returned using the same courier service.
- The invoicing will be through the WYLER partner in your country.



YOU WILL FIND OUR DETAILED SERVICING CONTRACT UNDER:
WWW.WYLERAG.COM/FILEADMIN/PDF/CATALOGUE/MAINTENANCE_CONTRACT.PDF

"Wyler is the epitome of outstanding quality and service".



**Steffie
Welk**

Sales Support

messwelk GmbH
Kleinstheim, Germany



WYLER

Interesting facts

Philosophy

MISSION AND OBJECTIVES OF WYLER AG

Customers

Customer satisfaction is our highest concern. We want to ensure that our products and services meet our customers' expectations. We strive to maintain our reputation as capable and reliable partners for our customers – allowing us to achieve the highest possible customer benefit. Our products and services are therefore geared entirely toward individual customer expectations and requirements. We ensure that our statements regarding the quality and specifications of our products are correct. Promises to customers are taken as commitments. For our worldwide distribution, emphasis is put on supporting and promoting our distribution network as key partners. We value the involvement of these organizations in key strategic decisions.

Suppliers

We wish to be seen by our suppliers as a partner. The business relationship with our suppliers is based on a fair and balanced partnership. Statement regarding Conflict Minerals / (Dodd-Frank Act section 1502): WYLER agrees that human rights violations and environmental damage in the region of the Democratic Republic of Congo and neighboring countries should be avoided. For this reason, WYLER AG supports the delivery chain initiative Conflict Minerals (Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502). As a manufacturer of electronic inclinometers, we are committed to purchasing all our parts with conflict-free materials. We encourage our suppliers, therefore, to provide the relevant evidence. The structure of these due diligence measures for conflict-free procurement is in progress.

Employees

Our highly motivated employees ensure the company's success through their professionalism and dedication. We endeavor to be an attractive employer by providing good working conditions and personal contact where each employee feels highly appreciated. We highly value the expertise and skill of our employees and



Quality

*Service
+ Partnership*

*Innovation
+ Competence*

foster this through constant and targeted further training. We expect a high level of personal responsibility from our employees, as well as loyalty and willingness to work in interdisciplinary project teams.

Society and environment

We commit ourselves to fair competition and to respecting all applicable laws and the rights of individuals as well as of society at large. The prime target for our company is not growth, but the quality of our products and services. We commit ourselves to attaining our business objectives while making careful use of natural resources. Special care is taken not to waste material and energy. Decreasing material waste is a continuous process using new technologies. Unrecyclable waste has to be taken care of without harming the ecology. We provide our employees with equal opportunities regardless of their gender, age, religion, or nationality. We do not publicly criticize our competitors and respect them in every regard. Where economically justifiable, machines are continuously adapted to incorporate the latest technology.

Economic success and long-term strategy

The company's success is measured by the annual economic business result. With this success, the company's long-term goals regarding quality and quantity is secured. It is our prime objective to show responsibility toward the owners, employees, customers, suppliers, and society at large by ensuring the long-term economic success of the company. We aim to further strengthen our position as market leader in the field of inclination measurement instruments and systems. It is our aim to ensure the long-term success of the company through strategic and operational development, continuous improvement, and growth. The principle location for the production is Switzerland.

Employee Continuing education Training

QUALITY, INNOVATION AND SERVICE

Of course, we are predominantly concerned with precision: the linear slope, the plane, the angle...but that's precisely why we're especially proud of one thing: our employees.

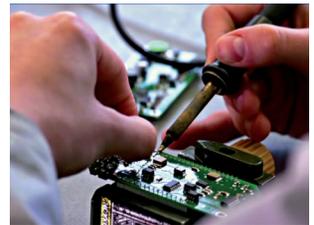
This is because they are the ones who ensure this achievement. In order to rely on highly motivated and well-trained employees in the future, we place great importance on our own training unit, where we provide young men and women with training to become, for example, qualified multi-skilled mechanics and electronic technicians.

We provide you with certainty in inclination measuring technology wherever you are, and we do so around the world. We are able to accomplish this task in a solid network with motivated employees and long-time partners.



We therefore regard regular training and continuing development of our employees, partners and product users to be a significant part of our work. We provide optimal information and knowledge transfer wherever possible. This is a firm component of the WYLER mission statement: **quality, innovation, and service**. Think outside the box – act directly. That is thus our maxim.

In the process, our employees are united in the pursuit of a single goal: to assure quality, innovation, and service in inclination measuring technology to you as a client. Rely on a team that provides exceptional performance through great commitment and expertise.



Marketing

CORPORATE MOVIES AND VIDEOS

Do good and talk about it. We communicate our company performance and client-centric message under this motto via appropriate modern media.

"WYLER AG has been developing, manufacturing, and distributing inclination measurement products worldwide for decades. Today, in addition to our standard products, we increasingly offer client-specific solutions that assist users in working more precisely and productively and at the same time increase production safety. Therein we see our expertise going forward. And it is imperative to communicate this to our target markets," *Heinz Hinnen.*

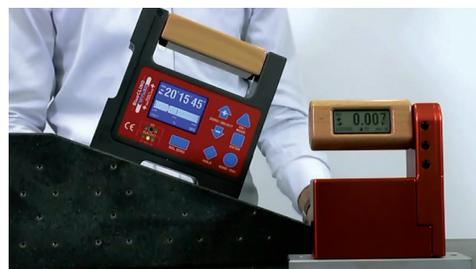
Corporate movie WYLER AG
"WYLER inclination measurement - Precise. Since 1928"



Corporate movie WYLER AG
Wylar AG - That's what Heidelberger Druckmaschinen AG says about us



Product video WYLER AG
BlueCLINO - precision inclinometer by WYLER AG



Various instructional videos
e.g. Relative / Absolute measurement / Reversal measurement

MEDIA

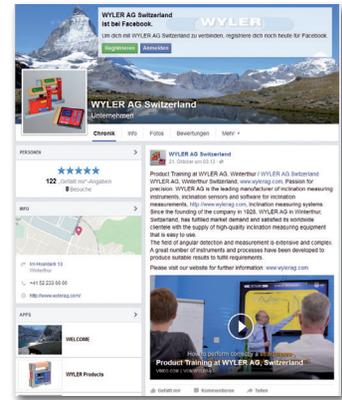
WYLER AG Facebook

On our Facebook channel, you can always find the latest news about WYLER AG.

- News
- Information about WYLER AG
- Access to the latest videos
- Link to WYLER AG



www.facebook.com/wylerSWISS



WYLER AG Video

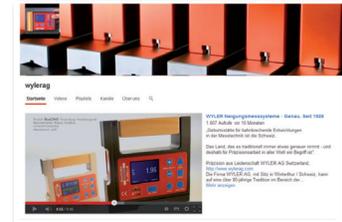
On our YOUTUBE or VIMEO channel (wylerag) you will find various images relating to WYLER AG as well as videos and instructional films about our products. The instructional videos, in particular, are constantly being supplemented by videos of other new products.



<http://www.youtube.com/wylerag>



<https://vimeo.com/user39010470>



History

MILESTONES IN THE COMPANY'S HISTORY

1928

MAX WYLER started the activities in Winterthur by taking over the product range of precision spirit levels from the former company Franz Hoen, Buelach Switzerland.



1970

The development of the first electronic inclination measuring instrument **Niveltronic (nivelSWISS)**. Still today this instrument is highly esteemed by a number of metrologists.



1977

Development and introduction of the handheld instrument **MINILEVEL "classic" A10** and the **LEVELTRONIC "classic" A40**.



1987

Launching of the small handheld instrument **CLINOTRONIC** with which the name WYLER was increasingly gaining notoriety.



1991

Development and introduction to the market of the **Software LEVELSOFT** for measuring flatness of surfaces and lines up to the final printing of a required protocol.



Establishing the holding company **WYLER INTERINVEST AG** by **H. Hinnen and R. Morlet**. This new company takes over the complete shares of the WYLER AG.



1992

Accreditation of WYLER AG as an internationally recognized **calibration laboratory** SCS EN ISO / IEC 17025, official Swiss Calibration Service for inclination measurement.



1995

Presentation of the first inclination measuring sensor **ZEROTRONIC**, working completely on the digital principle together with the corresponding software **DYNAM**.





YOU WILL FIND THE COMPLETE SUCCESSFUL HISTORY UNDER:
WWW.WYLERAG.COM/EN/ABOUT-US/COMPANY-HISTORY

- 1998**
- 2000**
- 2005**
- 2006**
- 2007**
- 2008**
- 2012**
- 2012**
- 2014**
- 2017**

New development and launch of the **spirit level series "SPIRIT"** with a completely new and revolutionary adjustment system.

Development of the software application **LEVELSOFT PRO**.

Development and introduction of the new generation of handheld precision measuring instruments **BlueSYSTEM / BlueLEVEL - BlueMETER**.

Development of the new software products **WyBus, LabEXCEL, LabEXCEL Clino** based on LabVIEW.

The complete shares of WYLER AG were taken over by **Heinz Hinnen**.

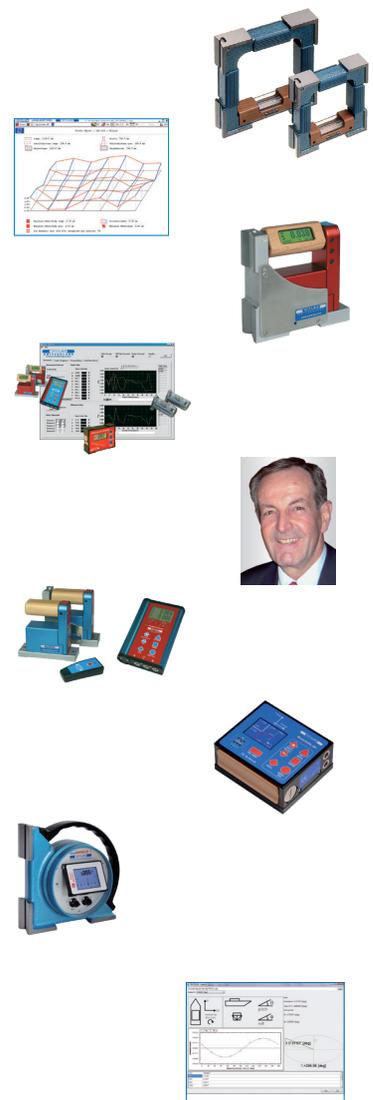
Development and introduction of **BlueSYSTEM BASIC** with wireless data transmission.

Development and introduction of the new measuring instrument **BlueLEVEL-2D**.

Development and introduction of the modified instrument **nivelSWISS-D** with a slewing display and with data transmission via a USB cable.

Development and introduction to the market of the new **measuring software wylerDYNAM** for inclination measuring instruments and sensors produced by WYLER AG, a versatile software application for various measuring tasks.

Development and introduction of the new measuring software **wylerCHART, wylerELEMENTS, wylerPROFESSIONAL** and **wylerSPEC**.



Organization

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YOU WILL FIND DETAILED TERMS AND CONDITIONS ON OUR WEBSITE:
[HTTP://WWW.WYLERAG.COM/SUPPORT/GENERAL-TERMS-AND-CONDITIONS](http://www.wylerag.com/support/general-terms-and-conditions)

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WYLER SWITZERLAND is continuously enhancing its products and reserves the right to change technical specifications as well as the appearance without prior notice. For this reason the specifications and the pictures of the products delivered may be slightly different from those shown in the catalog.



