... MINI CATALOG; OUR PRODUCTS AT A GLANCE

... 迷你型錄 : 我們的產品簡介

版本 **2015** 第**2**版

WYLER AG

INCLINATION MEASURING SYSTEMS

水平(傾斜)測量系統

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Swiss Quality

BlueSYSTEM SIGMA

可選配安裝藍芽裝置

The **BlueLEVEL,** in combination with **BlueMETER SIGMA,** is extremely suitable for precision measurements of small angles. This includes flatness measurements on surface plates in particular, and the measuring of geometrical features on machines of all kinds. A **BlueSYSTEM SIGMA**, also called **Engineer Set**, normally consists of two BlueLEVEL measuring instruments and an indicating unit BlueMETER SIGMA.

BlueLEVEL水平儀, 搭配 **BlueMETER SIGMA**, 適合用於需要精確的小角度測量的場合(精密水平測量)。 可以測量平台表面的平面度， 還有測量工具機的各種幾何精度。**BlueSYSTEM SIGMA**、也稱為工程組合 **Engineer Set**, 通常包含兩支 BlueLEVEL水平儀測量裝置， 還有一台BlueMETER SIGMA 用來顯示數值

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]
0.001	±20
0.005	±100

with or without radio transmission

BlueLEVEL-2D

可選配安裝藍芽裝置

The **BlueLEVEL-2D** is a high precision and compact inclination measuring instrument for 2 axes. In spite of its small outer dimensions the instrument contains 2 inclination sensors one in X- and one in Y-direction 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.
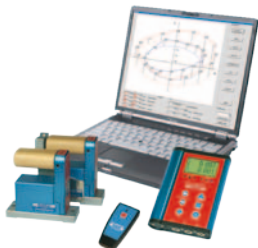
BlueLEVEL-2D 是一個高精確度並整合為一體雙軸的水平儀 。雖然儀器外觀緊湊,但是內含 2 個傾斜感測裝置, 一個是 X- 方向， 另外一個是 Y-方向, 整合在一起, 搭配圖形以及彩色 2D 顯示器。既精密尺寸又小, **BlueLEVEL-2D** 非常適合用於機台或是工件的水平調整

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]
0.001	±20
0.005	±100

with or without radio transmission
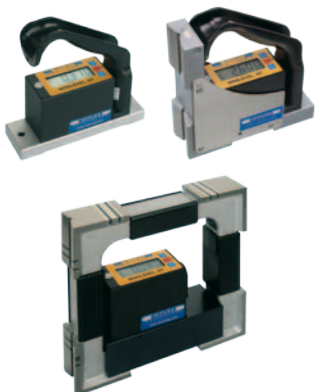
BlueSYSTEM BASIC

可選配安裝藍芽裝置

The **BlueLEVEL BASIC,** in combination with **BlueMETER BASIC,** is a less expensive version and extremely suitable for precision measurements of small angles. This includes flatness measurements on surface plates in particular, and the measuring of geometrical features on machines of all kinds. A **BlueSYSTEM BASIC,** also called **Engineer Set,** normally consists of two BlueLEVEL BASIC measuring instruments and a display unit BlueMETER BASIC.

BlueLEVEL BASIC、搭配**BlueMETER BASIC**、 算是比較經濟的組合,可以用於需要精確的小角度測量的場合(精密水平測量)。 可以測量平台表面的平面度, 還有測量工具機的各種幾何精度。 **BlueSYSTEM BASIC**、也稱為工程組合 **Engineer Set**、通常包含兩支 BlueLEVEL BASIC水平儀測量裝置, 還有一台 BlueMETER BASIC 用來顯示數值

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]
0.001	±10
0.005	±50

MINILEVEL NT

MINILEVEL NT is specially designed for precision measurements of small angles. Such measurements are particularly flatness measurements on surface plates or the measuring of geometrical features on machines of all kind. The sealed and nitrogen filled sensor cell allows perfect applications even under extremely difficult environmental conditions with high air humidity or in the rough environment of a workshop. The instrument MINILEVEL NT was replaced by the BlueLEVEL and will only be used in special cases.

MINILEVEL NT 專門設計用於精確的小角度的測量。 像是測量平台表面平面度或是測量工具機的各種幾何精度。感測器為密閉的設計並且填充氮氣， 可以使用於較差的環境， 例如濕氣較重或是工作現場廠環境中。 此款儀器 MINILEVEL NT 已經由 BlueLEVEL 取代, 並且只有在特殊的案例才會銷售

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]
0.001 / 0.010	±2 / ±20
0.005 / 0.050	±10 / ±100

nivelSWISS-D (Niveltronic)

Battery powered electronic inclinometer with digital display, which can be inclined to allow optimal readability from above. **nivelSWISS-D** can be simply integrated into WYLER measuring systems and connected to a PC/laptop with a USB cable. **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

電池供應電力的電子水平儀附帶數位液晶顯示器可以提供最佳的重現性。 **nivelSWISS-D** 已經整合進入 WYLER 測量系統並且可以容易的使用 USB 連接線連接到 PC/筆電中。 **nivelSWISS-D** 是傳統型的電子水平儀 **nivelSWISS** 後繼機種

nivelSWISS-D 有兩種版本可以選擇:
* nivelSWISS-D HORIZONTAL水平型底座
* nivelSWISS-D ANGULAR垂直型底座

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]
0.001 / 0.005	±0.150 / ±0.750

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 works 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

電池供應電力的電子水平儀附帶類比式直流電錶顯示器。可以重新定位的零點標記穩定度高，可以長時間用於測量作業或是用於調整擺正大型機床的工作。 **nivelSWISS** 安裝穩固並且細心處理的鑄鐵基座。

nivelSWISS 有兩種版本可以選擇:
* nivelSWISS 50-H 水平型底座
* nivelSWISS 50-W 垂直型底座

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]
0.010 / 0.050	±0.150 / ±0.750

with or without radio transmission | **BlueCLINO High Precision** | 可選配安裝藍芽裝置

BlueCLINO *High Precision* is based on the successful standard BlueCLINO which has a measuring range of ±60°. This huge measuring range has opened new and interesting applications for the standard BlueCLINO as e.g. the construction of antennas or road and railroad construction. But, when it comes to the precise alignment of parts of a machine tool, the standard BlueCLINO quickly reaches its limits. This is exactly where the new **BlueCLINO *High Precision*** comes into the picture: with a measuring range of ±1° and scraped bases (left and below), this instrument provides the necessary precision for small inclinations which is required in precision machine tool building.

BlueCLINO *High Precision* 是以測量範圍±60° 的 BlueCLINO 為基礎。使用 BlueCLINO 大範圍的測量已經開啟一些新的傾斜測量應用方式。例如: 天線的建置， 公路和鐵路建造工程等等。但是想要應用於精確的工具機部件，標準的 BlueCLINO 就有精度的限制了。所以這個新的 **BlueCLINO *High Precision*** 就此研發: 搭配有測量範圍 ±1° ,並且有鏟花底座 (左側和底部), 此款儀器提供足夠的精確度可用於精密機械建造期間精密水平測量用途。

Sensitivity 解析力 [arcsec]	Limits of error (within 6 months) 長期觀察誤差限制(6 個月內) [arcsec]	Range 測量範圍 [°]
1 (approx. 0.005 mm/m)	DIN 2276	±1

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 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.

CLINO 2000 是精密的手提式高精度傾斜測量裝置具有非常高的品質。CLINO 2000原先設計主要用於單獨使用, 但是在需要有參考點的情況也可以加入第二台儀器使用。除此之外, 也可以透過內建的 RS232介面連接到 PC / 筆電。CLINO 2000測量的數值可以和內存的測量曲線做比對, 也因此可以做非常高精度的傾斜度計算。

Sensitivity 解析力 [arcsec]	Limits of error (within 6 months) 長期觀察誤差限制(6 個月內) [arcsec]	Range 測量範圍 [°]
5	5 + 0.03% M_w	±10
5	10 + 0.03% M_w	±45

M_w = measured value M_w = 測量數值

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

- 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 ±60° with integrated temperature compensation

BlueCLINO 的基礎是多方驗證過的 CLINO2000,包含如下特色:

- 大型以及非常容易讀取的彩色顯示器
- 可以選擇不同的色彩選項
- 不同的顯示方法, 例如條型圖或是模擬氣泡可以設定
- 可以指示目前的測量單位
- 高精確的測量範圍達到 ±60°,也有內建溫度補償

Sensitivity 解析力 [arcsec]	Limits of error (within 6 months) 長期觀察誤差限制(6 個月內) [arcsec]	Range 測量範圍 [°]
5 (approx. 0.025 mm/m)	$12 + 0.027\% \ M_w$	±60

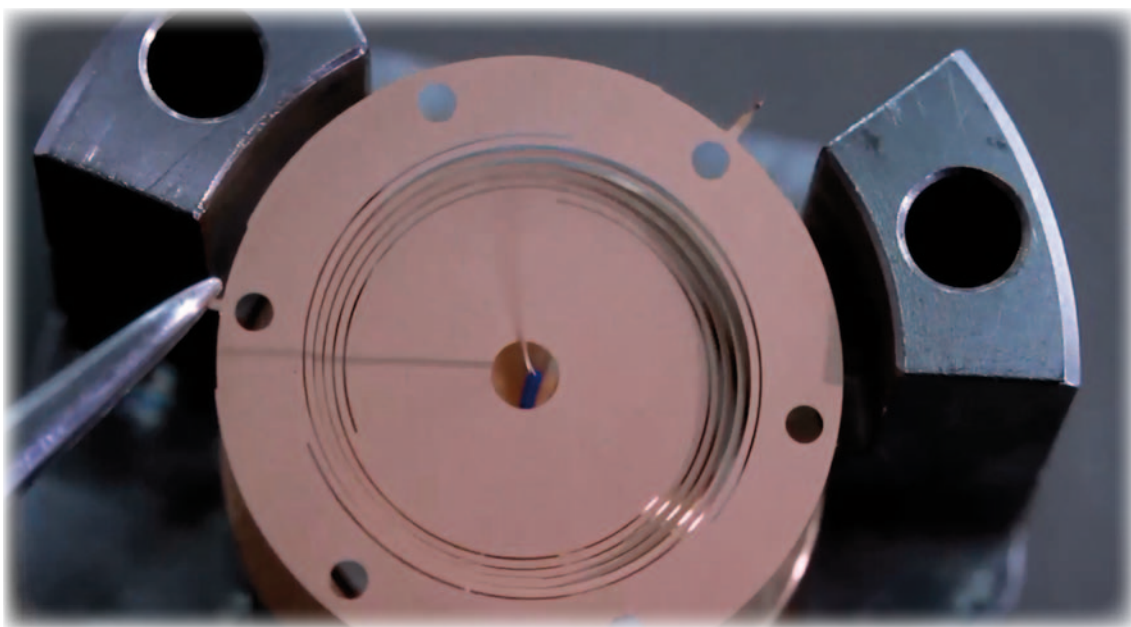M_w = measured value M_w = 測量數值

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 the connection to other WYLER instruments or directly to a PC using a special cable.

Clinotronic PLUS 提供測量±45 度的能力。外側四周的精確的平面提供測量四個象限足夠的精度與重現性。使用按鍵選擇各種傾斜角度單位可顯示在液晶螢幕上。除此之外對應於一個指定長度的斜度也是可以設定的。 按鍵設定操作設定絕對零點或是相對零點都非常簡單。RS485 介面可以連接到 Wyler 其他的裝置或是直接使用專用線連接到 PC。

Sensitivity 解析力 [mm/m]	Limits of error (within 6 months) 長期觀察誤差限制(6 個月內) [arcmin]	Range 測量範圍 [°]
0.020	1...2 + 1 digit	±45

ZEROTRONIC

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

ZEROTRONIC 感測器已經在建立了自己在市場的定位，專注於高精度傾角測量的應用。這個感測器 **ZERO-TRONIC** 系列具有以下特點：

- 高解析力以及高精確度
- 卓越的溫度穩定性
- 數位輸出：
  RS 485 / 非同步. , 7 資料位元, 2 停止位元, 沒有同位元
- 測量範圍 ±0.5 到 ±60 度
- 同時記錄數個感測器的測量值
- 抗震動干擾能力高
- 抗電磁干擾能力高

Type 型號	Sensitivity 解析力 [arcsec]	Range 測量範圍 [°]
ZEROTRONIC Type 3	0.1...0.7	±0.5
ZEROTRONIC Type 3	0.2...0.9	±1
ZEROTRONIC Type 3	0.7...7.2	±10
ZEROTRONIC Type 3	3.2...21.6	±30

Type 型號	Sensitivity 解析力 [arcsec]	Range 測量範圍 [°]
ZEROTRONIC C	2.9...18	±10
ZEROTRONIC C	3.2...23.8	±30
ZEROTRONIC C	3.2...29.2	±45
ZEROTRONIC C	4.3...54	±60

ZEROMATIC

The two-dimensional inclination measurement sensors **ZEROMATIC 2/1 and 2/2** are perfectly suited for any application where monitoring of the smallest changes in absolute inclinations over a longer period of time is required. 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 will provide one set of precise and absolute inclination values in the X and Y axes. The ZEROMATIC 2/2 has two inclination sensors. It can therefore provide continuous values for the inclination in X and Y axes. At defined intervals it will perform a reversal measurement and compensate for any offset.

這個 2 軸向傾斜測量感測器 **ZEROMATIC 2/1** 和 **2/2** 適合用於需要長時間監測非常小角度絕對水平變化的情況。透過自動化的反轉測量方式偵測與補償[絕對水平零點飄移]達到非常高精確需求。**ZEROMATIC 2/1** 內建一個傾斜感測器. 每個反轉測量都會提供一組精確的X Y雙向的絕對水平值。**ZEROMATIC 2/2** 內建二個傾斜感測器。在指定的時間周期會以反轉測量方式補償修正任何的漂移，然後提供 X 和 Y 方向連續的數值。

Limits of error 長期觀察誤差限制 [arcsec]	Linearity 線性度	Range 測量範圍 [°]
1	0.5 % M_W	±1

M_w = measured value M_w = 測量數值

ANALOG INCLINATION MEASURING SENSOR | **LEVELMATIC** | 類比感測器

LEVELMATIC 31

The LEVELMATIC sensor is an analog sensor with an **analog voltage / current output signal**. This sensor has specifically been developed to be mounted on machines. Since the sensor is mounted in a tight, weatherproof, and shock-resistant housing, inclination measurements are possible even under difficult conditions. The sensor is easy to use, and requires little in terms of instruction.

LEVELMATIC 感測器是一個有類比電壓/電流信號輸出的感測器。這個感測器特別發展用於安裝在機器上。 因為耐候性佳, 抗衝擊, 當感測器固定後, 應付各種情況下仍然可以測量。這感測器非常容易使用,只需要簡短的時間上手。

LEVELMATIC C

Type 型號	Resolution Auflösung [µRad/mV]	Range 測量範圍 [mRad]
LEVELMATIC 31	1	±2
LEVELMATIC 31	2.5	±5
LEVELMATIC 31	5	±10
LEVELMATIC 31	10	±20

Type 型號	Resolution Auflösung [°/mV]	Output voltage / 輸出電壓 [V] at/an 100 kΩ	Output current 輸出電流 [mA]	Range 測量範圍 [°]
LEVELMATIC C	0.015	1	4 … 20	±15
LEVELMATIC C	0.006	2.5	4 … 20	±15
LEVELMATIC C	0.003	5	4 … 20	±15

Type 型號	Resolution 決议案 [°/mV]	Output voltage / 輸出電壓 [V] at/an 100 kΩ	Output current 輸出電流 [mA]	Range 測量範圍 [°]
LEVELMATIC C	0.030	1	4 … 20	±30
LEVELMATIC C	0.012	2.5	4 … 20	±30
LEVELMATIC C	0.006	5	4 … 20	±30

LONG-TERM MONITORING OF DAMS, BRIDGES OR BUILDINGS | **Monitoring** | 監測 | 長時間監測水壩, 橋梁或建築物

WYLER AG is offering several solutions to monitor (temporarily or permanently) buildings, bridges, landslides, dams or tunnels.

In order to visualize changes of such objects, measuring data have not only to be acquired, but also to be transmitted, to be analyzed and to be presented.

WYLER 公司提供多種解決方案來監控(暫時或永久)建築物,橋樑,山坡滑動,水壩和隧道等等物件。為了可視覺化發現被測物件的變化, 測量數據不僅只有採集, 也將數據發送出去, 客戶可用以分析並呈現數據。

DATALOGGER SPECIFICALLY ADAPTED TO WYLER INSTRUMENTS | **DataLogger** | DataLogger 特別適用於 WYLER 感測器紀錄用

DataLogger:
Easy to use due to its simple parameterization.

DataLogger:
使用簡單的參數, 所以容易使用.

DataTaker

DataTaker:
Flexible datalogger; freely programmable.

DataTaker:
靈活的數據紀錄儀; 可自行編寫程序

Geo-Monitoring Systems / GEO-監測系統

Geo-Monitoring Systems:
For more complex applications.

GEO-監測系統：
用於更複雜的應用程序

BlueMETER SIGMA

BlueMETER SIGMA is a further enhancement of the well known BlueMETER, and has been developed as an intelligent display unit for the electronic inclination measuring instruments
- BlueLEVEL
- BlueCLINO and BlueCLINO *High Precision*
- MINILEVEL NT (by means of cables only)
- CLINOTRONIC PLUS
- ZEROMATIC
- ZEROTRONIC-sensors

BlueMETER SIGMA 這是熟悉的 BlueMETER 增強版, 並且增加了更多功能的顯示方式, 可搭配於以下型號的電子水平儀與傾斜儀:
- BlueLEVEL
- BlueCLINO and BlueCLINO High Precision
- MINILEVEL NT (by means of cables only)
- CLINOTRONIC PLUS
- ZEROMATIC
- ZEROTRONIC-sensors

BlueMETER BASIC

The BlueMETER BASIC is an intelligent digital display unit developed by WYLER AG for the inclination measuring system BlueSYSTEM BASIC.

The BlueMETER BASIC 也是多功能的顯示裝置 WYLER AG 發展此款用於水平測量系統 BlueSYSTEM BASIC。
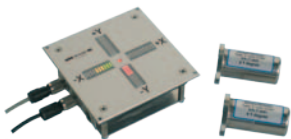
LEVELMETER 2000

The LEVELMETER 2000 has been developed as an intelligent Hand Terminal together with the digital sensors of the ZEROTRONIC-family and as a display unit for the electronic inclinometers MINILEVEL NT and LEVELTRONIC NT.

LEVELMETER 2000 很早就發展用於當作手持式顯示裝置, 搭配水平/傾斜感測器 ZEROTRONIC-系列的顯示器, 或是搭配水平儀 MINILEVEL NT 和 LEVELTRONIC NT 系列使用。

LED-CROSS   LED - 十字

The **LED-CROSS** is very suitable for providing a visual representation of the inclination of a platform.
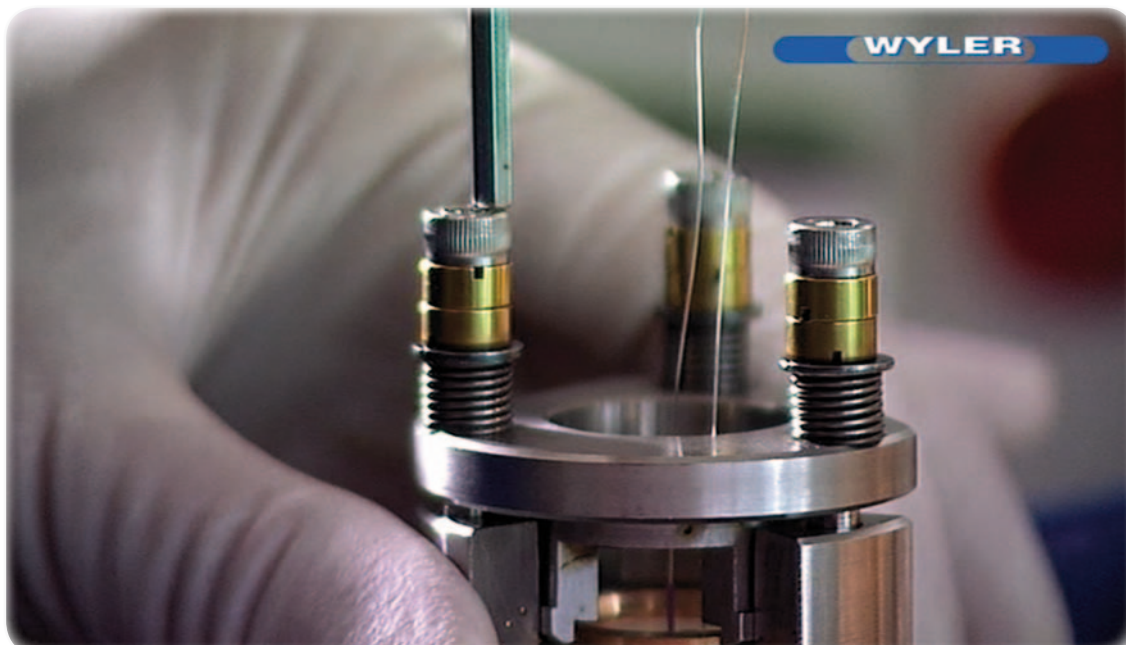
Typical **applications** are:
- Supervision of a crane for goods that are sensitive to inclinations
- Optical aid for manual hydraulic levelling of objects or platforms
- Supervision of working platforms: preventing the platform from tilting with the help of programmable alarms

LED-CROSS 是一個非常適合用於提供視覺顯示傾斜度的方式。
典型的應用有:
- 監控起重機的吊掛貨品的傾斜程度
- 以光亮線條輔助物件或平台的手動液壓調整水平
- 監督工作平台:可以設定警報輸出的方式, 防止平台傾斜

TC (Transceiver/Converter)

The transceiver/converter TC is a bus component for demanding solutions with ZEROTRONIC sensors:
- Allows baud rates up to 57'600 baud
- Conditions excitation 5V DC for ZEROTRONIC sensors from unregulated input of 12 to 48V DC
- Conditions the RS485 signal and drives the RS485 bus for long distance data transport (1000 meter total length of bus cable).
- Provides conversion from RS485 to RS232 for the connection to a COM port of a computer
- Data ports feature galvanic isolation from each other

傳送/轉換裝置 TC 是一個傳輸器的組合, 是 ZEROTRONIC 感測器合為一體的解決方案:
- 允許傳輸率 達到 57600 bps
- 啟用電壓 5V DC 的ZEROTRONIC感測器, 需要使用 12 到 48V DC的穩壓輸入
- 搭配使用 RS485 信號還有驅動 RS485 傳輸器, 可以 長距 離傳 送數據信號, 最多可使用 1000 公尺長的 傳輸線
- 提供轉換 RS485 到 RS232 , 用以連接電腦的 com 連 接 埠
- 數據埠彼此的信號是獨立與隔離的

MultiTC (Transceiver/Converter)

The MultiTC is a system component and an interface to connect WYLER-sensors (ZEROTRONIC or ZEROMATIC) with a laptop.
- MultiTC provides an easy way to power the sensors, either through the USB port of a laptop or via a separate 24V power supply.
- The measuring values are transferred from the sensors via the MultiTC to an RS232- or a USB port of the laptop, where the values can be evaluated with one of the WYLER measuring software like LEVELSOFT PRO, MT-SOFT or LabEXCEL.

MultiTC 是一個用於連接 WYLER-感測器 (ZEROTRONIC 或 ZEROMATIC) 到電腦的裝置
- MultiTC 提供簡易的方式供應感測器電力, 不論是電 腦的 USB port 或是使用外部的 24V 電源供應器都可 以.
- 感測器的數據傳送是透過 MultiTC 到 RS232- 或是 USB,數 值可以使用 Wyler 公司的測量軟體其中之一 運算, 例如 LEVELSOFT PRO, MT-SOFT 或是 LabEXCEL.

BlueTC (Transceiver/Converter)

For applications with inclination measuring instruments:
The BlueTC with or without radio transmission was developed as an alternative interface to the BlueMETER and BlueMETER BASIC for using the BlueLEVEL and BlueLEVEL BASIC inclination measuring instruments.

Applications with sensors ZEROTRONIC:
The BlueTC is used as an interface for data transmission through a cable or wireless connection. To each BlueTC up to eight sensors may be connected.

It is possible to send measured data via an RS232/485 port to a printer, a PC/laptop or the WYLER LEVELSOFT PRO and MT-SOFT software or to other software such as LabEXCEL.
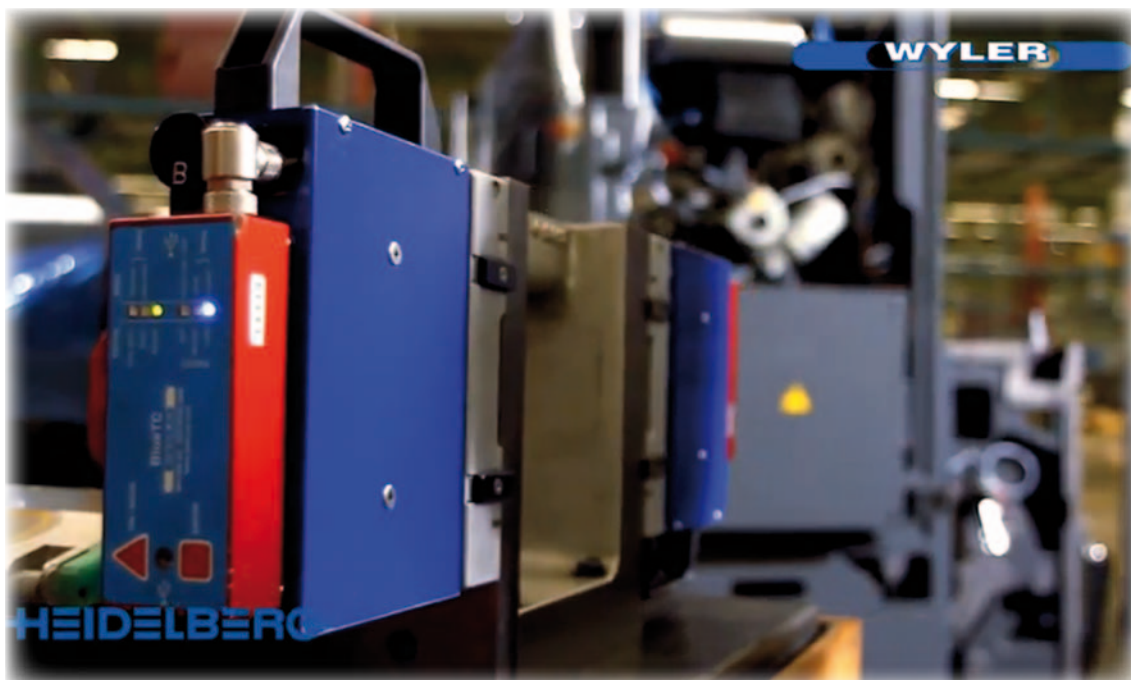
水平儀/傾斜測量儀器的應用：
已開發選配內建無線傳送的 BlueTC , 做為BlueLEVEL/ Blue-LEVEL BASIC 兩款水平儀到 BlueMETER 和BlueMETER BA-SIC 的一種替代連接方式 。

感測器 ZEROTRONIC 的應用：
BlueTC 被用作用於數據傳輸埠, 通過有線或無線連接。 每一個 BlueTC 可以連接達八個感測器。

它可以通過 RS232/485 傳送測量數據到印表機,電腦或 WYLER LEVELSOFT PRO / MT-SOFT 軟體, 或其他軟體如 LabEXCEL.

MEASURING SOFTWARE

<div align="right">測量軟體</div>

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

LEVELSOFT PRO
軟體 LEVELSOFT PRO 是我們的標準軟體，用於測量直線，平台的平面度，還有幾何形狀的測量, 計算的方式也依據 ISO 1101 規範。.

MT-SOFT
MT-SOFT is the expanded version of LEVELSOFT PRO: MT-SOFT is an ideal tool for measuring and quality inspection on machine tools and their components.

MT-SOFT
軟體 MT-SOFT 是 LEVELSOFT PRO 的擴充版本:
MT-SOFT 是一個理想的 工具軟體用於測量與檢查工具機以及周邊的部件。

LabEXCEL
The software LabEXCEL 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.

LabEXCEL
軟體 LabEXCEL 是一個容易使用的軟體，用於顯示 WYLER 水平儀的測量數值。這個測量的數據自動讀取轉為 csv 檔案，然後可經由 EXCEL 做其他運用。

DYNAM II
The software DYNAM II 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 also complex measuring tasks can be solved.

DYNAM II
軟體 DYNAM II 為各種測量目地提供一個寬廣的應用範圍。
只需經過點擊測量任務的方式即可設定完成。由於這麼方便使用，所以很多複雜的測量任務也都可以因此解決。

WYLER SOFTWARE DEVELOPMENT KIT
For customers intending to develop their own analyzing software for WYLER instruments, WYLER AG provides several software examples that explain how to interact with WYLER instruments or WYLER sensors either direct or via a software interface developed by WYLER. These examples should allow an experienced programmer to successfully develop their own application software.

WYLER SOFTWARE DEVELOPMENT KIT
WYLER SOFTWARE DEVELOPMENT KIT 軟體應用套件
有些客戶打算使用 Wyler 的儀器，並且開發自己的分析軟體，WYLER 公司提供幾個軟體範例，解釋如何透過範例的軟體介面，把 WYLER 儀器與 WYLER 感測器直接或通過WYLER 範例軟體進行連結。
這些範例軟體可讓有經驗的程式編寫人員成功地開發自己的應用軟體。

PRECISION SPIRIT LEVELS

<div align="right">精密氣泡水平儀</div>

Horizontal Spirit Level	**55 SPIRIT**	長條型氣泡式水平儀

For measurements on horizontal surfaces and cylinders, with insulating handle and vial protection, with wooden box.

用於測量水平表面或是水平方向的圓柱體， 搭配有隔熱手把以及玻璃管保護，有木盒包裝.

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	smallest 最小尺寸 [mm]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]	biggest 最大尺寸 [mm]
0.02	± 0.06			
0.04	± 0.12			
0.05	± 0.15	100 x 32 x 35		500 x 60 x 57
0.10	± 0.30			
0.30	± 0.90			

Magnetic Spirit Level	**48 SPIRIT**	磁性氣泡式水平儀

For horizontal and vertical measurements with strong magnetic adhesion on vertical surfaces, whether plane or cylindrical, with insulating handle, with wooden box.
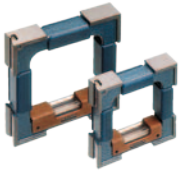
用於水平與垂直面的測量， 垂直面帶有強磁可以吸附在垂直方向，不論是 垂直平面或是垂直圓柱都行，搭配有隔熱手把，有木盒包裝

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]
0.02	± 0.06	
0.04	± 0.12	
0.05	± 0.15	150 x 40 x 150
0.10	± 0.30	
0.30	± 0.90	

| Precision Frame Spirit Level | | | **58 SPIRIT** | | 精密框型氣泡水平儀 |

With two flat bases (upper and right hand) and two prismatic bases (bottom and left hand) for checking on horizontal and vertical surfaces, plane or cylindrical, with insulating handles and vial protection, with wooden box.
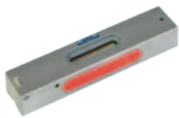
有兩個平面(上面與右側) 還有兩個 V 型面(底部與左側),
用於檢查水平和垂直方向的表面, 平面或圓柱體, 搭配有隔熱手
把以及玻璃管保護, 有木盒包裝。

Sensitivity 解析力	Range 測量範圍	smallest 最小尺寸	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高	biggest 最大尺寸
[mm/m]	[mm/m]	[mm]	[mm]	[mm]
0.02	± 0.06			
0.04	± 0.12			
0.05	± 0.15	100 x 32 x 100		300 x 50 x 300
0.10	± 0.30			
0.30	± 0.90			

| Inspection Spirit Level | | | **61** | | 檢查用氣泡式水平儀 |

With prismatic base for measurements on flat faces or cylinders, with insulating handle and vial protection, with wooden box.

Shaft: Ø 19 ... 120 mm

底座是 V 型, 可用於於測量平面或是水平的圓柱體, 搭配有隔
熱手把以及玻璃管保護, 有木盒包裝.

圓柱直徑: Ø 19 ... 120 mm

Sensitivity 解析力	Range 測量範圍	smallest 最小尺寸	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高	biggest 最大尺寸
[mm/m]	[mm/m]	[mm]	[mm]	[mm]
0.02	± 0.06			
0.04	± 0.12	100 x 45 x 35		200 x 45 x 35
0.05	± 0.15			
0.10	± 0.30			

| Adjustable Spirit Level | | | **52** | | 可調整的氣泡式水平儀 |

For checking plane and cylindrical surfaces being not absolutely horizontal, with adjusting system, with wooden box.

Shaft: Ø 19 ... 108 mm

用於檢查沒有完全水平的平面以及圓柱體, 附帶可以調整氣泡
管的裝置以木盒包裝 。圓柱體直徑

圓柱直徑: Ø 19 ... 108 mm

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[mm/m]	[mm]
0.02	0 ... 50 /± 0.06	
0.05	0 ... 50 /± 0.15	200 x 40 x 41
0.10	0 ... 50 /± 0.30	

| Adjustable Micrometer Spirit Level | | | **68** | | 帶有測微器的氣泡式水平儀 |

Used for measuring the flatness of surfaces, inclinations, taper or conicity, with prismatic measuring base of steel, hardened and ground, with insulating handles, with wooden box

用來測量平面度, 傾斜度, 錐度或是圓錐 ,以鋼質為材料製作的
V 型底面, 加以硬化研磨完成, 搭配有隔熱手把, 有木盒包裝。

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[mm/m]	[mm]
0.02	-20 ... +4	150 x 45 x 45 (80)

| Micrometric Spirit Level | | | **53** | 帶有測微器的氣泡式水平儀 |

For measuring irregularities of plane surfaces, measuring range ±5 mm, with wooden box.

用於測量 大變化的平面, 測量範圍達到 ±5 mm, 有木盒包裝.

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	**[mm/m]**	**[mm]**
0.02	± 50	
0.05	± 50	120 x 25 x 28 (50)
0.10	± 50	

| Crankpin Spirit Level | | | **56** | 雙 V 型底座水平儀 |

With two prismatic grooves perpendicular to each other. The prismatic grooves are suitable for shaft diameters Ø 19 … 108 mm, depending on the dimensions.

兩個 V 型底座互相成 90 度的氣泡式水平儀. 這個型式依照購買的尺寸大小, 可適用於圓柱體直徑介於 Ø 19 … 108 mm 之間。

Sensitivity 解析力	Range 測量範圍	smallest 最小尺寸	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高	biggest 最大尺寸
[mm/m]	**[mm/m]**	**[mm]**	**[mm]**	**[mm]**
0.05	± 0.10			
0.10	± 0.20	60 x 42 x 32		120 x 42 x 32
0.30	± 0.60			

| Shaft Spirit Level | | | **63** | 圓柱體專用氣泡式水平儀 |

Horizontal spirit level with slot windows which enable the view on the vial from the side. Standard version with prismatic measuring base, not recessed in the middle part, with wooden case.

此款水平儀的兩側有溝槽可以從側面查看水平氣泡管的狀態. 標準的版本底座是 V 型的測量面, 底座中間沒有內凹的狀態, 有木盒包裝。

Sensitivity 解析力	Range 測量範圍	smallest 最小尺寸	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高	biggest 最大尺寸
[mm/m]	**[mm/m]**	**[mm]**	**[mm]**	**[mm]**
0.05	± 0.15			
0.10	± 0.30	100 x 30 x 35		200 x 30 x 35
0.30	± 0.90			
1.00	± 3.00			

| Tubular Spirit Level | | | **59** | 圓柱形氣泡管水平儀 |

With flat measuring base
Option No. 59 A:
Length 80 and 150 mm are also available with 2 holes to screw-on

底面是平直的平面
可選購 No. 59 A:
長度 80 和 150 mm 增加兩個孔, 方便用螺絲固定

Sensitivity 解析力	Range 測量範圍	smallest 最小尺寸	Dimensions – length x width / diameter 尺寸 -- 長 x 寬 / 直徑	biggest 最大尺寸
[mm/m]	**[mm/m]**	**[mm]**	**[mm]**	**[mm]**
0.05	± 0.15		--------	
0.10	± 0.30			200 x 11 / Ø22
0.30	± 0.90	80 x 9 / Ø16		
1.00	± 3.00			

Screw-on Spirit Level — 66 — 可以螺絲固定的氣泡式水平儀

For machines, apparatus and other technical applications.　　安裝於機器上, 機器設備以及其他的應用。

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	smallest 最小尺寸 [mm]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]	biggest 最大尺寸 [mm]
0.10	± 0.20	80 x 15 x 18		
0.30	± 0.30	60 x 12 x 14		
1.00	± 2.00	50 x 10 x 12	150 x 18 x 22	
2.00	± 4.00	80 x 15 x 18		
2 ... 5	--------	30 x 10 x 10	60 x 12 x 14	

Horizontal Spirit Level — 69 — 水平氣泡式水平儀

Available with flat or prismatic base.　　可選擇平面式或 V 型底座。

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	smallest 最小尺寸 [mm]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]	biggest 最大尺寸 [mm]
0.30	± 0.90	100 x 30 x 35		300 x 30 x 35
1.00	± 3.00			

Magnetic Angle Spirit Level — 47 — 帶有磁性的垂直測量用氣泡式水平儀

For vertical measurements, with strong magnetic adhesion to plane and cylindrical surfaces, with plastic vial protection, with wooden box.　　用於垂直測量, 有強烈磁鐵可以吸附在垂直面帶有強磁可以吸附在垂直方向, 不論是垂直平面或是垂直圓柱都行, 搭配有透明壓克力氣泡管保護, 有木盒包裝。

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]
0.30	± 0.90	100 x 30 x 100

Universal Angle Spirit Level — 64 — 多用途氣泡式水平儀

With removable tubular level, prismatic measuring base 150 x 40 mm for vertical measurements, flat face of the tubular level 150 x 10 mm for horizontal measurements, with wooden box.　　搭配有可以拆除的氣泡管, V 型測量底座150 x 40 mm 用於垂直測量, 底下是平面底座氣泡管, 用於水平測量, 尺寸為 150 x 10 mm ,有木盒包裝。

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]
0.50	± 1.50	160 x 40 x 150

Cross Spirit Level — 78 — 雙向氣泡式水平儀

To screw-on, for machines, apparatus, etc.　　可以螺絲固定於機台上, 或是機器裝置各項運用。

Sensitivity 解析力 [mm/m]	Range 測量範圍 [mm/m]	178-080-123-xxx [mm]	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高 [mm]	178-150-123-xxx [mm]
0.02	± 0.06	--------		
0.04	± 0.12	--------		
0.05	± 0.15	--------	148 x 147 x 30	
0.10	± 0.30	78 x 65 x 17		
0.30	± 0.90			

Cross Spirit Level	**76**	雙向氣泡式水平儀

To screw-on, for machines, apparatus, etc.　　　　　　　可以螺絲固定於機台上, 或是機器裝置各項運用。

Sensitivity 解析力	Range 測量範圍	Dimensions – diameter x height 尺寸 -- 直徑 x 高度	
		smallest 最小尺寸 [mm]	biggest 最大尺寸 [mm]
[mm/m]	[mm/m]		
0.30	± 0.60	60 x 13	
1.00	± 2.00	50 x 12	80 x 18
2 ... 5	---------	40 x 11	

Circular Spirit Level	**72 / 73 / 74**	圓形氣泡式水平儀

MOD. 72

MOD. 73

MOD. 74

For fitting on to machines, apparatus, etc.　　　　　　　可以固定在機器裝置上各項應用。

Sensitivity 解析力	Dimensions – diameter x height 尺寸 -- 直徑 x 高度	
	smallest 最小尺寸 [mm]	biggest 最大尺寸 [mm]
[arcmin]		
8 ... 12	60 x 17	---------
10 ... 20	16 x 10	30 x 14.5
12 ... 18	40 x 12	50 x 15
20 ... 30	20 x 9	30 x 11

CLINOMETERS

<div align="right">傾斜測量水平儀</div>

Clinometer	80	Clinometer

Instrument for measuring angular deviation accurately, with circular scale 2 x 180 deg., with finely ground prismatic base of hardened steel for measuring on shafts and flat surfaces, with micrometer graduated 1 Div. = 1 arcmin, with wooden box.

用於精確測量角度偏差的水平儀, 搭配使用環型刻度尺 2 x 180 度。加上研磨的硬化鋼材質 V 型底座, 可以放置於圓軸或平面上。測微器刻度 1 格 = 1 arcmin 弧分, 有木盒包裝。

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[°]	[mm]
0.30	± 180	150 x 35 x 116

Frame Angle Spirit Level	79	框型氣泡式水平儀

With fine setting device, two flat bases and two prismatic bases, with circular scale, division of 2 x 180 deg., vernier for reading at 3 arcmin, with wooden box.

有微調設定裝置, 兩個平面型底座, 兩個 V 型底座, 加上環型刻度尺 2 x 180 deg., 游標讀取可達 3 arcmin 弧分, 有木盒包裝。

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[°]	[mm]
0.30	± 180	150 x 40 x 150
1.00	± 180	

Inclination Spirit Level	57	傾斜檢查氣泡式水平儀

With fine setting device, with 2 prismatic bases, allows easy checking of angles up to 90 deg. in degrees and minutes, vernier for reading at 10 arcmin, with wooden box.

有微調設定裝置, 有兩個 V 型底座, 可以簡單的檢查角度達 90 度。可使用的測量單位是(度 分), 游標可讀取 10 弧分, 有木盒包裝。

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[°]	[mm]
0.30	90	150 x 40 x 150
1.00	90	

CLINORAPID	45	CLINORAPID

The CLINORAPID 45 is suitable for measuring any inclination in degrees and minutes, on flat surfaces and shafts. Measuring range ±180 degrees. As this instrument does not measure using a glass vial, it is nearly independent from the environmental temperature and can therefore very well be used for outdoor measurements.

CLINORAPID 45 型適合用於需要測量任意傾斜角度的情況(度與分), 可以放置在平面或圓柱上面。 測量範圍是±180 度。此裝置沒有使用玻璃氣泡管, 不管環境溫度的變化, 因此可以適用於戶外的環境。

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[°]	[mm]
10	±180	200 x 30 x 130

Protractor spirit level	62	水平量角器

For checking any inclination, division of 2 x 180 deg. without vernier, prismatic cast iron base.

用於檢查傾斜度, 刻度有 2 x 180 度。沒有游標刻度, 底座是V 型鑄鐵底座。

Sensitivity 解析力	Range 測量範圍	Dimensions – length x width x height 尺寸 -- 長 x 寬 x 高
[mm/m]	[°]	[mm]
2 ... 5	±180	180 x 22 x 80

WYLER

Basing on the law of communicating pipes, for measuring two or more distant points not being in direct interconnection to each other, with wooden box. Depth micrometer feeler with needle available as accessory.

基於連通管的原理製造, 用於測量 2 或是更多個已連接的點的高低差, 有木盒包裝。帶有深度測量用測微器, 使用探針可以測量高低差。

Dimensions / 尺寸	H (總) = 250 mm / Ø 基地 = 100 mm

Various　　　　　　　　其他項目

Various Products
- Measuring and Setting Plates for Laboratories
- Measuring and Setting Straight edges

其他項目
- 實驗室用的精密花崗岩平台
- 精密花崗岩直規

Calibration Laboratory SCS WYLER

High precision inclination measuring instruments have to be tested and recalibrated on a regular base. Our air-conditioned calibration lab is equipped with special high precision measuring and calibration equipment certified by METAS Switzerland. The calibration range for instruments and sensors reaches from very small angles (0.2 arcsec) to the full circle (360°). Our laboratory is equipped to test and calibrate WYLER as well as non-WYLER products.

校正實驗室**SCS WYLER**
高精密度的傾角測試儀器都有定期測試和重新校準。我們的無塵空調校準實驗室配備了經由瑞士METAS認證的特殊高精密測量和校準設備。可以校準的儀器和傳感器範圍從非常小的角度（0.2弧秒）的整個圓（360度）都行。我們的實驗室測試和校準可服務WYLER以及非WYLER產品。

BASICS and Product Training
- Basics on inclination measurement
- Product Training for customers

基礎知識和產品訓練
- 傾斜(水平)測量基本訓練
- 為客戶提供產品訓練課程

INNOVATION & PRECISION

High technology with Swiss precision

WYLER AG, Winterthur / Switzerland is the leading manufacturer of precision spirit levels. Clinometers, electronic inclination measuring instruments, inclination sensors and software for inclination measurement.