ProLine v2

Alignment Software for Linear Guides

Status Pro
maschinenmesstechnik

ProLine v2

You have made a good choice …

ProLine v2, in combination with the display unit, is the optimum solution for the alignment of linear guides.

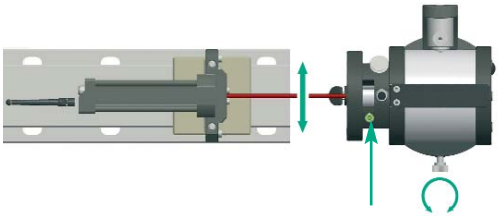
The following functions and characteristics will convince you:

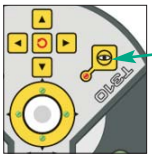
- Excellent user interface: Logical and user-friendly and nevertheless fully suitable for professional use
- Automatic connection management, wireless via Bluetooth
- Automatic sensor detection
- Measuring point comments can be inserted and edited
- Easy-to-use touch screen, no keyboard needed.
- Reports and measured data can be stored on USB stick.
- Automatic calculation of the best reference
- High-performance display unit is robust and yet lightweight.

Contents

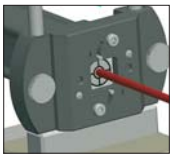
Preparatory laser alignment for measuring a guide plane

1. Move the sensor slide and the magnets into the desired position.
   Set up the T310 Rotational laser in the direction of measurement.
   Use the integrated spirit level to align the housing so that it is perpendicular.



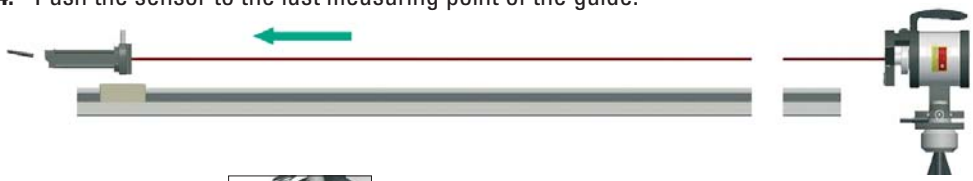


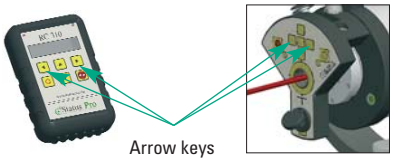
2. Now switch on the leveling function of the T310.



3. Now adjust the height of the tripod so that the laser beam strikes the middle measuring range of the receiver.

4. Push the sensor to the last measuring point of the guide.

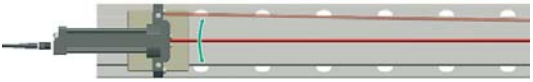




5. Use the remote control to center the laser beam again. Then move the laser receiver unit back to the position of the first measuring point.

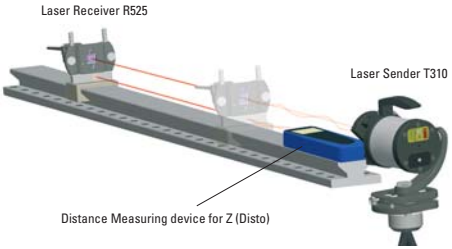
6. Now center the laser beam by means of the adjusting screw of the T310 laser transmitter.

7. The laser beam is again centered with the remote control to the position of the last measuring point. During subsequent movements of the sensor at the guide plane, you will determine that the laser beam remains approximately in the center of the receiver measuring plane.



The software – first steps

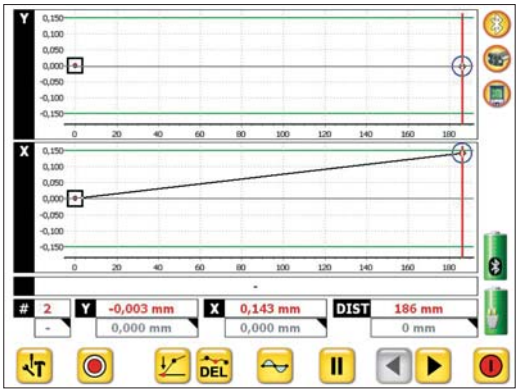
Mount the Disto™. Switch it on and select the Bluetooth communication. Switch on the sensor and open the target window (R525). *For instructions on preparatory laser alignment, see page 3.*



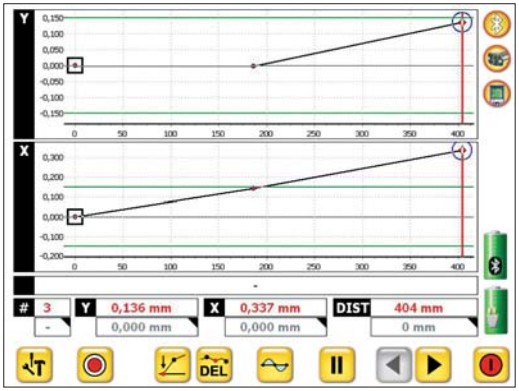
Start the ProLine v2 software via the desktop icon . The software automatically establishes a connection to Disto™ and the sensor.

You will notice that in the upper right area, the Bluetooth symbol and the symbols for the receiver and the Disto™ indicate an active connection. You will also see the X-,Y-and Z-starting coordinates.

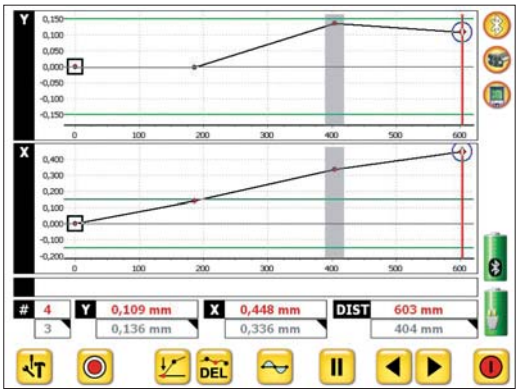
Move the sensor to the desired start position and start the first measurement with this button.
In the coordinate display, you see that X, Y and Z are set to zero. Also, the output ###### indicates that the unit is conducting a large query of measured data according to its structure. Do not move the sensor until the measured value is displayed.



Now you can move the sensor to the next position. The new value is automatically registered (in this case, a distance of 7.32 in from the first measuring point). Start the measuring point registration with the corresponding button .



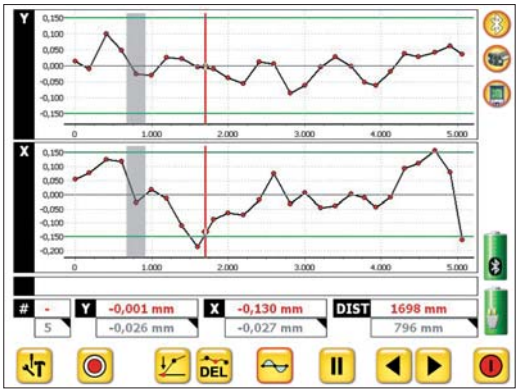
Repeat these steps through to the last measuring point.



You can delete any point DEL. Also, you can define any two points as reference points by setting them to zero .

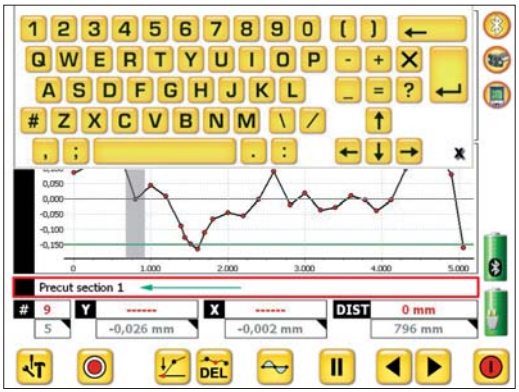
In this case, the third measuring point is set to zero. Now points 1 and 3 form the reference line for our measurement. You can change them at any time by setting a new point to zero.

Now continue with further measurements. Over a distance of 2.4 m (7.8 ft) you have now created nine additional measuring points. You will have noticed that the selection of points 1 and 3 as reference points was not ideal. Alternatively you can use the button to automatically create the optimum reference line. This minimizes the necessity of correcting all points. After starting this function, you see that this button is highlighted . Also, the current sensor position is indicated by a red line. You will also have noticed the blue circle at the current position. This circle tells us that the "auto edit" limit for this point has been reached. This means that this point will be replaced when a new measurement is conducted.

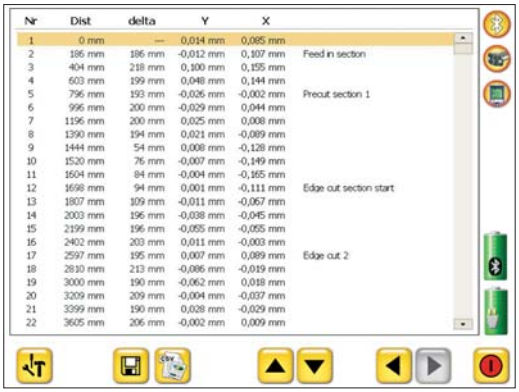


If you now examine your measurements, you will see that point 9 (measuring distance 1.5 m (4.9 ft)) deviates strongly and is outside of the tolerance range.

The relevance of this error can be checked by a few measurements to the left and right of the deviation. Therefore, you determine that new measurements can be conducted at any location and at any time. When the blue circle appears, the previous measuring point is replaced by a new one. This is very useful for the alignment correction.



It is also possible to write comments for all points, e.g. to describe the position of the measuring point. You only have to touch the comment field (framed in red here) and a keyboard appears. You can use the keyboard to name the measuring points.



By pressing the button ▶ (next page), you can view the list of measured values. Here you can save 💾 the values for documentation purposes or export 📄 them.

By clicking the black X or Y bar you can leave only one axis.

If the measuring distances are entered manually without the Disto™, the distances can be entered via the field DIST ------ as a total dimension.

Register new sensors – license key

When you order a measuring package with a display unit from Status Pro, all components are ready to use when you receive them. If you wish to use your own computer or add additional sensors later, they have to be registered in the software in order to enable communication.

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Für Firma ABCD
Herr Muster
Musterstr 1234
44866 Bochum

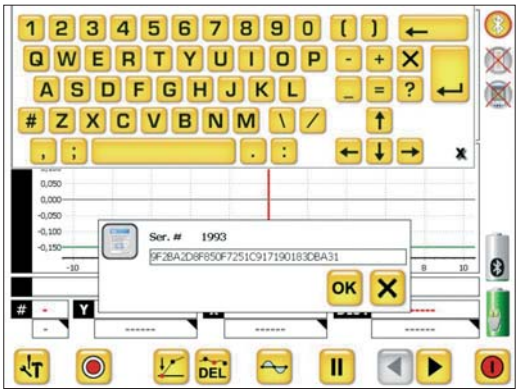
Pro Line V2 License 18.01.2008

Anbei erhalten Sie den Lizenzschlüssel für Ihr RS20 Gerät. Bitte bewaren Sie dieses Schreiben sorgfältig auf.

Serial 1993
License Key 9F2BA2D8F850F7251C917190183DBA31

With your sensors, you receive a delivery note that includes a license key.

When you start ProLine v2, the new sensor is found and the software prompts you to enter the license key.



Enter and confirm the license key that you received for the sensor. The unit is now ready for operation.

Description of program symbols


Record measuring point


Set point to zero


Delete measuring point


Set pause for current measured value display


Compensating curve ("best fit")
- all deviations in +/- with same total


Previous / next page


Settings


Retrieve event log


Bluetooth search
(search and combination of new sensors)


Save results of measurement


Export results of measurements for reports


Definition of the X/Y coordinate system


Define Z-direction


Definition of the displayed resolution


Work with / without Disto


Manually define Z for each point


Dot pitch in Z-direction constant


Define averaging time of the display


Define averaging time for recording of the measured value


Define mean value
for two measuring points


Define straightness tolerance


Bluetooth active / inactive


Disto active / inactive


Sensors active / inactive


Disto / sensor connection


Charge condition of receiver / DU310


Enter sensor connection code
(required only once for new sensors)


End program

DU310 UMPC

Part No. IT 200310

Operating system	Windows XP prof. (UMPC Edition), XP embedded or CE 5.0
Processor	AMD Geode LX800
Memory	512 MB - 1 GB RAM
Mass storage	512 MB - 8 GB Flash or 30 GB hard disk
Display	10.4“ TFT, 1024x768, HiBrite
Touch Screen	Control with pen or finger
Interfaces	USB 2.0, CardBus PCMCIA Type II, CF-Card Slot, Bluetooth integrated, WLAN integrated, VGA
Security	Fingerprint reader, Intel WLAN Security
Rechargeable battery	Li-Ion 14 Wh internal, external extra battery 28 Wh replaceable or 74 Wh battery pack in carry bag
Housing	Magnesium/aluminum with rubber guard
Operating environment	Temperature 0–104 °F, relative humidity 0–90 % n.c.
Dimensions & weight	appr. 8.3x10.3x0.7 in, 2 lbs incl standard rechargeable battery
Special features	Front is splash & water proof, shock proof from as high as 4 feet (with rubber guard), 5 configurable keys, up to 4 hours of operation; Optional: multi-language, daylight display

Accessories for DU310 UMPC

Illustration	Part No.	Name
	IT 200202	**Replacement control pen** Quantity of 3 / package
	IT 200205	**Rubber guard handle** for holding the UMPC with one hand; is fastened on back on rubber guard
	IT 200206	**Carrying strap for rubber guard handle** is fastened on back on rubber guard
	IT 200207	**External extra battery Li-Ion 28W** can be replaced during operation
	IT 200208	**1-compartment charging station for external battery**
	IT 200209	**Car DC-DC converter 12V / 24V** for connecting to docking station / car mounts or directly to the unit
	IT 200211	**External expansion battery pack** Li-ion 73W, charge level display

Part No. BG 830200/1

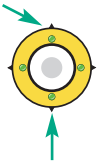
Rotational laser T310

The T310 leveling laser makes even difficult measuring tasks easy! A laser transmitter transmits the signal and a detector measures the beam position. Done!

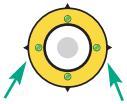
Control of the T310

The control keys control various functions. In addition, LEDs function as displays.

1. IR-receiver with folding mirror



2. Leveling status -LED for Y-axis (or Z-axis in case of laying arrangement)
Green 1x: Leveling < 0.0016 in/ft;
2x: Leveling < 0.001 in/ft;
Red LED: Actuator motor working

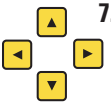


3. Leveling status LED for X-axis
Green 1x: Leveling < 0.0016 in/ft;
2x: Leveling < 0.001 in/ft;
Red LED: Actuator motor working

4. Power status LED on / off

5. Power key on/off

6. Laser rotation on/off



7. Key cross for setting the laser level 5(+) / 6(-)
As well as 3(+) /4(-)

8. Self-leveling on/off

9. Leveling status LED on/off

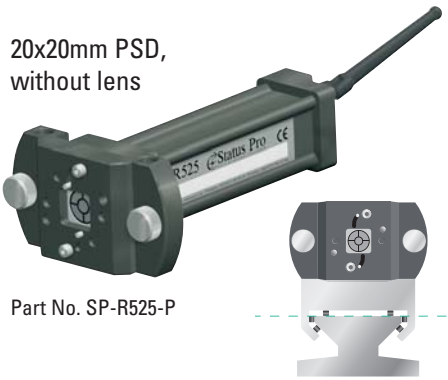
10. Level for rough leveling of the appliance

The sensors

R525 & R510 are battery-operated, wireless high-precision laser receivers for perfect straightness measurements of the chain guideways. This makes it possible to measure and document a 10-meter (32.8 ft) guideway in centimeter sections in five minutes.

R525

20x20mm PSD,
without lens



Part No. SP-R525-P

Measuring range	20x20mm
Resolution	1µm in X & Y
Accuracy	+/- 2µm
Inclinometer	Resolution 0,1°
Laser sensitivity	650nm / modulated
Wireless	Bluetooth class 1a (range: 30m (98 ft))
Interface	Rs232 / Bluetooth
Power supply	12V rechargeable battery
Operation with battery	8 hours
Charging time	2 hours – 90%
Protection class	IP 65

R510

20x20mm PSD,
with lens

Part No. SP-R510-P

Measuring range	20x20mm
Resolution	1µm in X & Y
Accuracy	+/- 2µm
Laser sensitivity	650nm / modulated
Wireless	Bluetooth class 1a (range: 30m (98 ft))
Interface	Rs232 / Bluetooth
Power supply	12V rechargeable battery
Operation with battery	8 hours
Charging time	2 hours – 90%
Protection class	IP 65

R310

The R310 measures the position of the rotating laser beam as a dial gauge from the work-piece for reference. The beam forms an entire reference plane and not just a line like a wire. The R310 is wireless and has a range of up to 80 m (262.5 ft).

Measuring range	80mm (3.15 in)
Resolution	0.01mm
Accuracy	+/- 0.02 + 0.3% linearity
IR control	Range: 50m (164 ft)
Interface	Rs232 / Bluetooth (optional)
Power supply	(rechargeable) battery 6x AA
Temperature range	0-50°C (0-122°F)

Part No. BG 830100

Leica DISTO™

Bluetooth® data transfer - for perfect transfer of measured values!
With the Leica DISTO™ A6, measuring does not stop with the display of the measured value: the data can be processed immediately with a pocket PC or a laptop. The DISTO™ transfer software is included in the scope of delivery.

Part No. FIX DISTO-P

- Measuring range 0.05 to 200m (0.16 to 656.17 ft), typical accuracy ±1.5 mm (±0.059 in)
- Power Range Technology™
- Integrated telescope viewfinder with 2x magnification
- Integrated BLUETOOTH® technology
- Navigation keys
- IP54
- Precise, fast and reliable measurements
- Enables measurement of large distances
- Wireless and error-free data transfer to pocket PCs or laptops
- Protected against splash, water and dust

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