

## GEO Center Catalog

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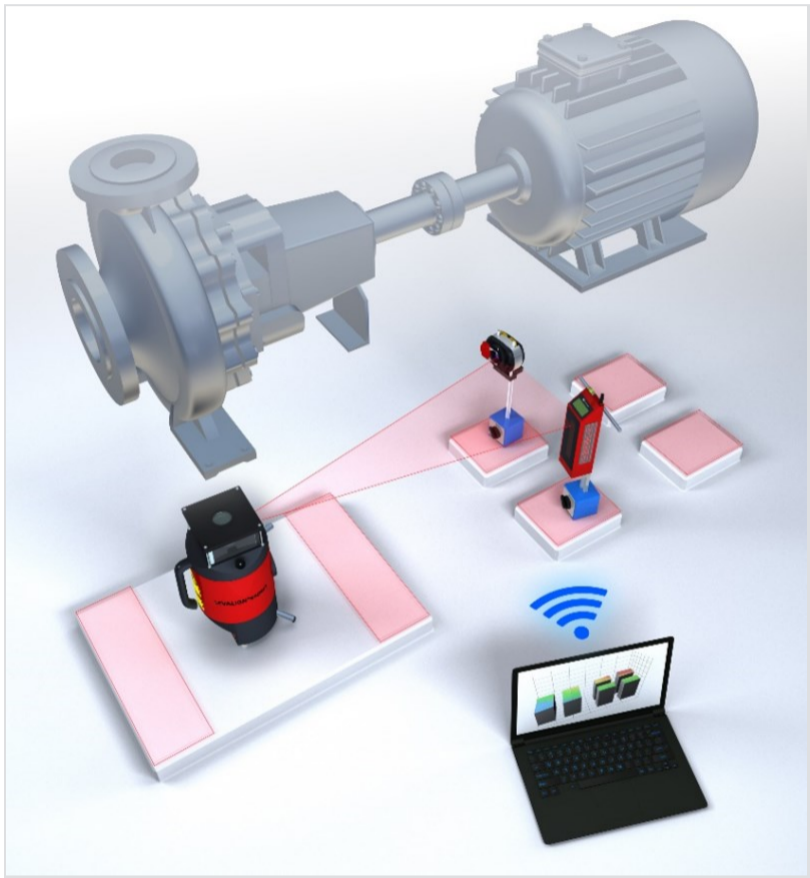
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## GEO CENTER

GEO CENTER is a newly developed software platform for geometrical measurements of straightness, flatness, parallelism and inclination in the industrial sector. Using the software, the measurements are performed directly from the laptop PC. No additional operating element is required. The software offers connection flexibility and can be used with different PRÜFTECHNIK laser and sensor components depending on the measurement task.



GEO CENTER communicates directly with the measuring components via Bluetooth.

### Features

- One software solution for measurements of straightness, flatness, inclination, and parallelism
- Direct measurement on laptop
- Flexible connection of measuring components
- Remote control enables "one-man operation"
- User-friendly operation
- Direct Bluetooth communication between sensor system and laptop
- Different measurement modes for straightness measurements: Line, bore, spindle, spindle & bore
- Free software updates
- Custom add-on packages with measuring components

### Order information

| Item No.              | Name  |
|-----------------------|---|
| <b>ALI 13.200-USB</b> | USB pen drive with GEO CENTER application, documentation, and activation code |

Notes: After installation, GEO CENTER runs in demo mode with some functional limitations. For the full scope of functions, the software must be unlocked using an activation code. This license is already included in the scope of delivery of the USB pen drive.

GEO CENTER is also available on the PRÜFTECHNIK homepage. In this case, the license must be requested from PRÜFTECHNIK for a fee.

**Laser and sensor system connection and possible measurement tasks**

| Laser system            |   | Sensor system  |   |   |
|-------------------------|---|--|---|---|
|                         |   | sensALIGN Sensor   | LEVALIGN expert Sensor  | INCLINEO  |
|                         |   |    |  |    |
| sensALIGN Laser         |    |    | ---   | ---   |
| LEVALIGN expert Laser   |    |    |  | ---   |
| LEVALIGN Ultra iS Laser |  |  | ---   | ---   |
| Long Range Laser        |  |  | ---   | ---   |
| ---                     |   | ---  | ---   |  |

 : Straightness |  : Flatness |  : Inclination |  : Parallelism

\* Line parallelism | \*\* Surface parallelism, together with PENTALIGN pentaprism

## Optional accessories

Measuring components and fixtures are available for GEO CENTER in the following optional packages:

| Item No.            | Name   |
|---------------------|--|
| <b>ALI 13.211</b>   | <b>GEO LEVALIGN expert - Standalone</b><br>Target group: Users without a compatible PRÜFTECHNIK measuring system, who would like to perform straightness and flatness measurements.  |
| <b>ALI 13.212</b>   | <b>GEO LEVALIGN expert - Add-on</b><br>Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN sensor system, who would like to perform straightness and flatness measurements.                |
| <b>ALI 13.221</b>   | <b>GEO INCLINEO</b><br>Target group: Users without a compatible PRÜFTECHNIK measuring system, who would like to perform inclination measurements.  |
| <b>ALI 13.231</b>   | <b>GEO LEVALIGN Ultra - Standalone</b><br>Target group: Users without a compatible PRÜFTECHNIK measuring system, who would like to perform straightness and flatness measurements.   |
| <b>ALI 13.232</b>   | <b>GEO LEVALIGN Ultra - Add-on</b><br>Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN sensor system, who would like to perform straightness and flatness measurements.                 |
| <b>ALI 4.120-IS</b> | <b>Long Range Laser 635nm, Set</b><br>Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN sensor system, who would like to perform straightness measurements over long distances (< 50 m). |
| <b>ALI 6.949-IS</b> | <b>PENTALIGN, Set</b><br>Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN sensor system, who would like to measure parallelism.   |
| <b>ALI 6.950</b>    | <b>PENTALIGN ohne Justierungssensor, Set</b><br>Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN sensor system, who would like to measure parallelism.                                  |

**Note:** For more information about brackets, refer to the corresponding accessory catalog.

**Scope of delivery - GEO LEVALIGN expert - Standalone - ALI 13.211**

| Item No.  | Name  | Details |
|---|---|---------|
| <b>ALI 6.930-LIB</b>  | LEVALIGN expert laser with wireless data transmission (Bluetooth)   | p. 15   |
| <b>ALI 6.960-LI</b>   | Battery charger for LEVALIGN expert Laser, International  | p. 15   |
| <b>ALI 6.940</b>  | LEVALIGN expert Sensor  | p. 15   |
| <b>ALI 6.985</b>  | Case for LEVALIGN expert (wireless / BT)  | ---     |
| <b>ALI 4.501-IS</b>   | Magnetic Foot Holder for Laser and Sensor   |         |
| <b>ALI 6.966</b>  | LEVALIGN Expert sensor holder for posts 8 mm  |         |
| <b>ALI 2.778</b>  | Anti-torsion bridge for universal pointer bracket, UPB  |         |
| <b>ALI 2.173</b>  | Post 250 mm, 2 pcs  |         |
| <b>0 0739 1056</b>  | Hexagon wrench, DIN 911, size 3   | ---     |
| <b>ALI 2.911</b>  | Cleaning cloth  | ---     |
| <b>ALI 17.454</b>   | USB pen drive with GEO documentation  | ---     |
| <b>ALI 9.613.DG</b>   | Inspection certificate for LEVALIGN expert Laser  | ---     |
| <b>ALI 9.614.DG</b>   | Inspection certificate for LEVALIGN expert Sensor   | ---     |
| <b>ALI 3.589</b>  | Tape measure, mm/inch   | ---     |
| <b>DOC 69.100</b>   | Quick reference guide, Menu settings for LEVALIGN expert laser  |         |
| <b>DOC 06.800</b>   | Operating instructions, Getting started with LEVALIGN expert  |         |
| <b>Overview of the measuring fixture for LEVALIGN expert Sensor</b> |   |         |
|   | <p>ALI 4.501-IS      ALI 2.173</p> <p>ALI 6.966      ALI 2.778</p>  |         |
|   | Single parts (left); magnetic foot holder with LEVALIGN expert sensor mounted (center and right). Sensor holder ALI 6.966 is required for mounting the sensor to the posts. |         |

**Scope of delivery - GEO LEVALIGN expert - Add-on - ALI 13.212**

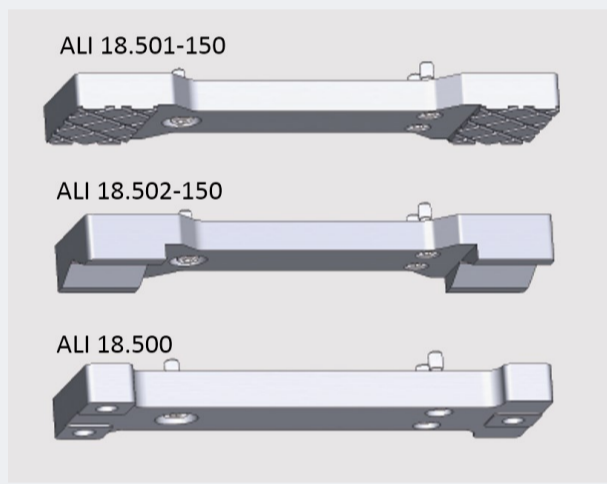
| Item No.   | Name  | Details |
|--|---|---------|
| ALI 6.930-LIB  | LEVALIGN expert laser with wireless data transmission (Bluetooth) | p. 15   |
| ALI 6.960-LI   | Battery charger for LEVALIGN expert Laser, International          | p. 15   |
| ALI 6.985  | Case for LEVALIGN expert (wireless / BT)                          | ---     |
| ALI 4.501-IS   | Magnetic Foot Holder for Laser and Sensor                         |         |
| ALI 6.773  | Plunger for flatness measurement                                  |         |
| ALI 2.778  | Anti-torsion bridge for universal pointer bracket, UPB            |         |
| ALI 2.173  | Post 250 mm, 2 pcs  |         |
| 0 0739 1056  | Hexagon wrench, DIN 911, size 3                                   | ---     |
| ALI 2.911  | Cleaning cloth  | ---     |
| ALI 17.454   | USB pen drive with GEO documentation                              | ---     |
| ALI 9.613.DG   | Inspection certificate for LEVALIGN expert Laser                  |         |
| ALI 3.589  | Tape measure, mm/inch   |         |
| DOC 69.100   | Quick reference guide, Menu settings for LEVALIGN expert laser    |         |
| DOC 06.800   | Operating instructions, Getting started with LEVALIGN expert      |         |
| <b>Overview of the measuring fixture for sensALIGN-Sensor</b>  |   |         |
|  |   |         |
| Single parts (left); magnetic foot holder for sensor assembled for surface measurement (center) and point scanning (right) |   |         |



**Scope of delivery - GEO INCLINEO - ALI 13.221**

| Item No.              | Name   | Details |
|-----------------------|--|---------|
| <b>ALI 18.200</b>     | INCLINEO precision inclinometer with 3-point mounting base             | p. 14   |
| <b>ALI 18.501-150</b> | Grooved mounting base for flat surfaces                                | ---     |
| <b>ALI 18.502-150</b> | Prism-shaped mounting base for curved surfaces (e.g., shafts, rollers) | ---     |
| <b>0 0621 0038</b>    | Screwdriver, PH1x35  | ---     |
| <b>0 0739 1056</b>    | Hexagon wrench, DIN 911, size 3  | ---     |
| <b>90022</b>          | AA battery 1.5V; 4 pcs   | ---     |
| <b>ALI 18.800</b>     | INCLINEO standard case   | ---     |
| <b>ALI 17.454</b>     | USB pen drive with GEO documentation                                   | ---     |
| <b>ALI 13.620</b>     | USB dongle for Bluetooth PC data communication                         | ---     |
| <b>ALI 18.290</b>     | INCLINEO calibration certificate                                       | ---     |
| <b>ALI 9.182</b>      | INCLINEO pocket guide  | ---     |

**Overview, mounting bases for INCLINEO inclinometer ---**



Mounting bases for flat (left) and curved (center) surfaces. The 3-point mounting base (right) can be used universally and is already pre-assembled on the INCLINEO inclinometer.

**Scope of delivery - GEO LEVALIGN Ultra - Standalone - ALI 13.231**

| <b>Item No.</b>     | <b>Name</b>                               | <b>Details</b> |
|---------------------|---|----------------|
| <b>ALI 6.910-IS</b> | LEVALIGN laser, 635 nm                    | p. 16          |
| <b>ALI 4.501-IS</b> | Magnetic Foot Holder for Laser and Sensor |                |
| <b>ALI 6.981</b>    | LEVALIGN Compact Case                     |                |
| <b>ALI 6.773</b>    | Flatness Plunger                          |                |
| <b>90109</b>        | Block Battery 9V, Alkaline Mangan         |                |
| <b>ALI 3.589</b>    | Tape measure mm/inch                      |                |
| <b>0 0739 1054</b>  | Hexagon wrench, DIN 911, size 2           |                |
| <b>0 0739 1056</b>  | Hexagon wrench, DIN 911, size 3           |                |
| <b>0 0739 1059</b>  | Hexagon wrench, DIN 911, size 6           |                |
| <b>ALI 17.454</b>   | USP pen drive with GEO documentation      |                |
| <b>DOC 40.201</b>   | LEVALIGN Ultra iS Flatness manual         |                |
| <b>ALI 9.500.DG</b> | sensALIGN Sensor inspection certificate   |                |
| <b>ALI 4.900</b>    | sensALIGN Sensor (FCC ID: QOQWT41)        |                |
| <b>ALI 4.960</b>    | sensALIGN rechargeable battery            |                |
| <b>ALI 4.921-2</b>  | sensALIGN cable, 2m                       |                |
| <b>ALI 4.651</b>    | sensALIGN AC power supply charger         |                |
| <b>ALI 2.911</b>    | Cleaning cloth                            |                |

**Scope of delivery - GEO LEVALIGN Ultra - Add-on - ALI 13.232**

| <b>Item No.</b>     | <b>Name</b>                               | <b>Details</b> |
|---------------------|---|----------------|
| <b>ALI 6.910-IS</b> | LEVALIGN laser, 635 nm                    | p. 16          |
| <b>ALI 4.501-IS</b> | Magnetic Foot Holder for Laser and Sensor |                |
| <b>ALI 6.981</b>    | LEVALIGN Compact Case                     |                |
| <b>ALI 6.773</b>    | Flatness Plunger                          |                |
| <b>90109</b>        | Block Battery 9V, Alkaline Mangan         |                |
| <b>ALI 3.589</b>    | Tape measure mm/inch                      |                |
| <b>0 0739 1054</b>  | Hexagon wrench, DIN 911, size 2           |                |
| <b>0 0739 1056</b>  | Hexagon wrench, DIN 911, size 3           |                |
| <b>0 0739 1059</b>  | Hexagon wrench, DIN 911, size 6           |                |
| <b>ALI 17.454</b>   | USP pen drive with GEO documentation      |                |
| <b>DOC 40.201</b>   | LEVALIGN Ultra iS Flatness manual         |                |

**Scope of delivery - Long Range Laser 635 nm, Set - ALI 4.120-IS**

| Item No.            | Name   | Details |
|---------------------|--|---------|
| <b>ALI 4.100-IS</b> | Long range laser with fine offset and angle adjustment, 635 nm |         |
| <b>ALI 4.112</b>    | Mounting base plate for Long Range laser                       |         |
| <b>ALI 4.507-2</b>  | Long Range Laser Cable, 2m                                     |         |
| <b>ALI 16.600</b>   | Long Range laser battery box                                   |         |
| <b>ALI 4.500</b>    | Magnetic Foot , 2 pieces                                       |         |
| <b>DOC 04.101</b>   | Long Range Laser, Pocket Guide                                 |         |
| <b>ALI 9.494.DG</b> | Inspection certificate for Long Range Laser 670/635 nm         |         |
| <b>ALI 4.836</b>    | Case for Long Range Laser                                      |         |
| <b>0 0739 1058</b>  | Hexagon wrench, DIN 911, size 5                                |         |
| <b>0 0739 1059</b>  | Hexagon wrench, DIN 911, size 6                                |         |
| <b>0 0741 6069</b>  | Cylinder head bolt, DIN 912 M06X16 VA, 2 pcs.                  |         |
| <b>0 0741 6089</b>  | Cylinder head bolt , DIN 912 M08X12 VA, 2 pcs.                 |         |
| <b>0 0741 6071</b>  | Cylinder head bolt, DIN 912 M06X25 VA, 4 pcs.                  |         |

**Overview: Case with Scope of delivery (mounting base plate is not shown)**



**Scope of delivery PENTALIGN, Set - ALI 6.949-IS**

| Item No.     | Name   | Details |
|--------------|--|---------|
| ALI 6.911    | Adjustable pentaprism incl. base and prism head          |         |
| ALI 6.921    | Adjustable sliding bracket for Pentaprism                |         |
| ALI 6.920-IS | PENTALIGN adjustment sensor, 635 nm                      |         |
| ALI 2.911    | Cleaning cloth   |         |
| ALI 2.801    | AAA battery 1.5V; 2 pcs                                  |         |
| ALI 6.926    | LEVALIGN Ultra set/up target                             |         |
| ALI 6.982    | PENTALIGN case   |         |
| ALI 6.924    | Pentaprism adapter plate for tripod mounting with screws |         |
| 0 0739 1057  | Hexagon wrench, DIN 911, size 4                          |         |
| DOC 06.101   | PENTALIGN pocket guide                                   |         |

**Scope of delivery PENTALIGN, Set - ALI 6.950**

| Item No.    | Name   | Details |
|-------------|--|---------|
| ALI 6.911   | Adjustable pentaprism incl. base and prism head          |         |
| ALI 6.921   | Adjustable sliding bracket for Pentaprism                |         |
| ALI 2.911   | Cleaning cloth   |         |
| ALI 6.926   | LEVALIGN Ultra set/up target                             |         |
| ALI 6.982   | PENTALIGN case   |         |
| ALI 6.924   | Pentaprism adapter plate for tripod mounting with screws |         |
| 0 0739 1057 | Hexagon wrench, DIN 911, size 4                          |         |
| DOC 06.101  | PENTALIGN pocket guide                                   |         |


## INCLINEO - Technical Data

| Parameter                       | INCLINEO technical data   |  |
|---------------------------------|---|--|
| <b>Measuring range</b>          | +/- 10°   |  |
| <b>Resolution</b>               | 0.0003° [1'']   |  |
| <b>Error limits @ 22°C [Ta]</b> | 0.005 % full scale 0.03 % read-out                                |  |
| <b>Digital filter/average</b>   | 3rd order with 0.3 / 1 / 3 Hz options                             |  |
| <b>Temperature range</b>        | Storage: -40 °C ...+85 °C<br>Operation: -10 °C ...+60 °C          |  |
| <b>Display</b>                  | LCD display, 132 x 32 pixel with LED backlight                    |  |
| <b>Control elements</b>         | 3 keys  |  |
| <b>Communication</b>            | Wireless via integrated BT module                                 |  |
| <b>External interface</b>       | RS-232 (serial) for computer and sensor; connector for dial gauge |  |
| <b>Power supply</b>             | AA battery, 2 pcs   |  |
| <b>Battery status indicator</b> | 3 LEDs  |  |
| <b>Data storage</b>             | Max. 999 measurements   |  |

## LEVALIGN expert - Technical Data

| Parameter                    | LEVALIGN expert technical data  |   |
|------------------------------|---|---|
| <b>LASER</b>                 |   |   |
| <b>Wavelength</b>            | 635 nm (red)  |   |
| <b>Laser class</b>           | II (<1mW)   |   |
| <b>Range</b>                 | 100 meters (Ø 200 meters)   |   |
| <b>Leveling</b>              | Vertical or horizontal (can be switched off)                                    |   |
| <b>Self-leveling range</b>   | ±5 %  |   |
| <b>Direction adjustment</b>  | ±5 %  |   |
| <b>Rotating speed</b>        | max. 800 RPM  |   |
| <b>Total error</b>           | < ±25 µm + ±24 µm/m<br>incl. conical + step + leveling error)                   |   |
| <b>Power supply</b>          | Internal rechargeable battery or external power supply                          |   |
| <b>Operating time</b>        | 16 hours  |   |
| <b>Dimensions</b>            | Ø 130 mm x 270 mm   |   |
| <b>Weight</b>                | 3.4 kg  |   |
| <b>Charger</b>               | Input: 100 - 240 VAC / 50 - 60 Hz / 340 mA<br>Output: 12 VDC / 1200 mA / 14.4 W |   |
| <b>SENSOR</b>                |   |   |
| <b>Resolution</b>            | 0.01 mm   |  |
| <b>Accuracy</b>              | ±0.02 mm  |   |
| <b>Measuring range</b>       | 70 mm   |   |
| <b>Zero-point adjustment</b> | 70 mm   |   |
| <b>Internal memory</b>       | 2600 points   |   |
| <b>Communication</b>         | Bluetooth   |   |
| <b>Power supply</b>          | 2 x AA batteries  |   |
| <b>Dimensions</b>            | 214 x 70 x 40 mm  |   |
| <b>Weight</b>                | 0.62 kg   |   |

## LEVALIGN Ultra - Technical Data

| Parameter                     | LEVALIGN Ultra iS technical data   |   |
|-------------------------------|--|---|
| <b>LASER</b>                  |  |   |
| <b>Wavelength</b>             | 635 nm (red)   |  |
| <b>Laser protection class</b> | Class 2, FDA 21 CFR 1000 and 1040  |   |
| <b>Beam diameter</b>          | approx. 5 mm   |   |
| <b>Beam divergence</b>        | < 0.2 mrad   |   |
| <b>Beam power</b>             | < 1mW  |   |
| <b>Adjustment accuracy</b>    | ± 0.02 mm/m  |   |
| <b>Measuring range</b>        | 20 m radius; range is unlimited if the InfiniSplice™ function of the ALIGNMENT CENTER flatness application is used |   |
| <b>Power supply</b>           | 9V battery IEC 6LR61 (alkaline or lithium)   |   |
| <b>Operating time</b>         | 50 hours continuously depending on battery type  |   |
| <b>Temperature range</b>      | -5°C to + 50°C   |   |
| <b>Weight</b>                 | approx 2.8 kg  |   |



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**Productive Maintenance Technology**



PRÜFTECHNIK  
85737 Ismaning, Germany  
[www.pruftechnik.com](http://www.pruftechnik.com)