

GEO Center Catalog

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GEO CenterCatalog

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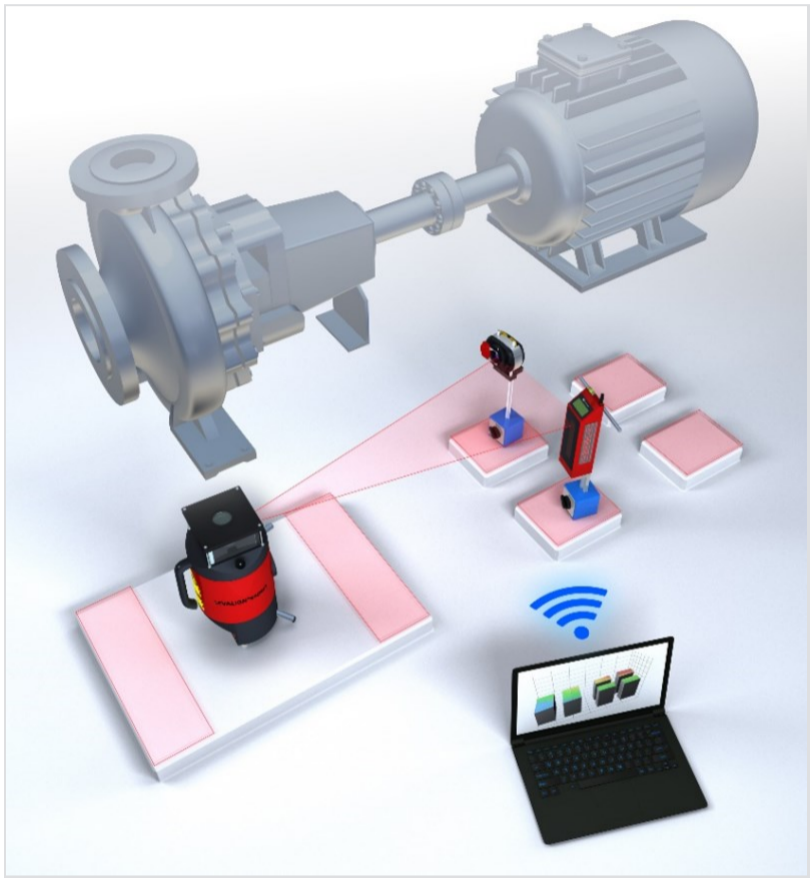
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GEO CENTER

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
ALI 13.200-USB	USB flash 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 flash 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 7 sensor	LEVALIGN expert sensor	INCLINEO
				
sensALIGN 7 laser			---	---
LEVALIGN expert laser				---
Long Range laser			---	---
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 : Straightness |
  : Flatness |
  : Inclination |
  : Parallelism

* Line parallelism

Optional accessories

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

Item No.	Name
ALI 13.211	GEO LEVALIGN expert - Standalone Target group: Users without a compatible PRÜFTECHNIK measuring system, who would like to perform straightness and flatness measurements.
ALI 13.212	GEO LEVALIGN expert - Add-on Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN 7 sensor system, who would like to perform straightness and flatness measurements.
ALI 13.221	GEO INCLINEO Target group: Users without a compatible PRÜFTECHNIK measuring system, who would like to perform inclination measurements.
ALI 13.241	sensALIGN 7 - Add-on Target group: Users without a compatible PRÜFTECHNIK measuring system, who would like to perform straightness measurements.
ALI 4.120-IS	Long Range Laser 635nm, Set Target group: Users, who already have a PRÜFTECHNIK measuring system with sensALIGN 7 sensor system, who would like to perform straightness measurements over long distances (< 50 m).

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
ALI 6.930-LIB	LEVALIGN expert laser with wireless data transmission (Bluetooth)	p. 14
ALI 6.960-LI	Battery charger for LEVALIGN expert Laser, International	p. 14
ALI 6.940	LEVALIGN expert Sensor	p. 14
ALI 6.985	Case for LEVALIGN expert (wireless / BT)	---
ALI 4.501-IS	Magnetic Foot Holder for Laser and Sensor	
ALI 6.966	LEVALIGN Expert sensor holder for posts 8 mm	
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 flash drive with GEO documentation	---
ALI 9.613.DG	Inspection certificate for LEVALIGN expert Laser	---
ALI 9.614.DG	Inspection certificate for LEVALIGN expert Sensor	---
ALI 3.589	Tape measure, mm/inch	---
DOC 13.205	Manual for GEO CENTER with LEVALIGN expert	
Overview of the measuring fixture for LEVALIGN expert Sensor		
		
<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.</p>		

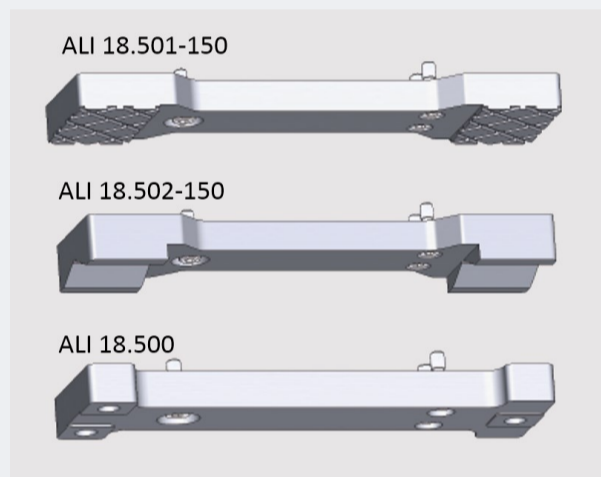
Scope of delivery - GEO LEVALIGN expert - Add-on - ALI 13.212

Item No.	Name	Details
ALI 6.930-LIB	LEVALIGN expert laser with wireless data transmission (Bluetooth)	p. 14
ALI 6.960-LI	Battery charger for LEVALIGN expert Laser, International	p. 14
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 flash drive with GEO documentation	---
ALI 9.613.DG	Inspection certificate for LEVALIGN expert Laser	
ALI 3.589	Tape measure, mm/inch	
DOC 13.205	Manual for GEO CENTER with LEVALIGN expert	
Overview of the measuring fixture for sensALIGN 7 sensor		
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
ALI 18.200	INCLINEO precision inclinometer with 3-point mounting base	p. 13
ALI 18.501-150	Grooved mounting base for flat surfaces	---
ALI 18.502-150	Prism-shaped mounting base for curved surfaces (e.g., shafts, rollers)	---
0 0621 0038	Screwdriver, PH1x35	---
0 0739 1056	Hexagon wrench, DIN 911, size 3	---
90022	AA battery 1.5V; 4 pcs	---
ALI 18.800	INCLINEO standard case	---
ALI 17.454	USB flash drive with GEO documentation	---
ALI 13.620	USB dongle for Bluetooth PC data communication	---
ALI 18.290	INCLINEO calibration certificate	---
DOC 13.101	GEO CENTER + INCLINEO getting started	---

Overview, mounting bases for INCLINEO inclinometer ---



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

Scope of delivery - sensALIGN 7 - Add-on - ALI 13.241

Item No.	Name	Details / No.
ALI 4.900I	sensALIGN 7 sensor, incl. rechargeable battery (ALI 4.960)	p. 11/ 1
ALI 4.910	sensALIGN 7 laser, incl. rechargeable battery (ALI 4.960)	p. 11/ 2
ALI 4.651	sensALIGN 7 AC power supply charger	--- / 3
ALI 30.800	GEO apps case	--- / 4
ALI 3.589	Tape measure mm/inch	--- / 5
ALI 2.911	Cleaning cloth	--- / 6
ALI 17.454	USB flash drive with GEO documentation	--- / 7
DOC 50.601	Safety and general information	--- / 8
ALI 9.500	sensALIGN 7 sensor inspection certificate	--- / 9
ALI 9.501	sensALIGN 7 laser inspection certificate	--- / 10

Overview



Note: The brackets for the sensALIGN 7 sensor and the laser are not included and must be ordered separately.

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

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

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



sensALIGN 7



Features

- Real-time measuring quality with IntelliSWEEP™
- 7-axis measuring system with HD PSD, XXL detector
- Integrated vibration measurement
- Considered vibration influenced from the surroundings
- Integrated precision inclinometers with MEMS
- Laser-sensor communication via laser beam
- Wireless communication via Bluetooth
- Rechargeable Li-polymer battery of the latest generation

TECHNICAL DATA

Parameter	sensALIGN 7 sensor
Measurement range	Unlimited, dynamically extendible (US. Patent 6,040,903)
Measurement resolution	1 µm
CPU	ARM Cortex™ M3 2 GB Flash Memory
LED indicators	4 LEDs for laser adjustment 1 LED for Bluetooth® communication 1 LED for battery status
Power supply	Operating time: 12 hours continuous use Battery: Lithium Polymer rechargeable battery 3.7 V / 1.6 Ah 6 Wh
External interface	Integrated Bluetooth® Class 1 wireless communication, RS232, RS485, IData
Vibration measurement	mm/s, RMS, 10Hz to 1kHz, 0 mm/s – 5000/f • mm/s² (f in Hertz [1/s])
Inclinometer	Resolution: 0.1° Error: ± 0,25 % full scale
Environmental protection	IP 65 (dustproof and water jets resistant) Shockproof Relative humidity: 10% to 90%
Ambient light protection	Yes
Temperature range	Operation: -10 °C to 50 °C (14 °F to 122 °F) Charging: 0 °C to 40 °C (32 °F to 104 °F) Storage: -20 °C to 60 °C (-4 °F to 140 °F)
Dimensions	Approx. 103 x 84 x 60 mm (4 1/16" x 3 5/16" x 2 3/8")
Weight	Approx. 310 g (10.9 oz)

Parameter	sensALIGN 7 laser
Type	Semiconductor laser
Beam power	< 1 mW
Beam divergence	0.3 mrad
Inclinometer	Resolution: 0.1° Error: ± 0.25 % full scale
LED indicators	1 LED for laser transmission 1 LED for battery status
Power supply	Lithium Polymer rechargeable battery 3.7 V / 1.6 Ah 6 Wh AC adapter/charger: 5 V / 3 A Operating time: 70 hours continuous use
Environmental protection	IP 65 (dustproof and water jets resistant) Shockproof Relative humidity: 10% to 90%
Temperature range	Operation: -10 °C to 50 °C (14 °F to 122 °F) Charging: 0 °C to 40 °C (32 °F to 104 °F) Storage: -20 °C to 60 °C (-4 °F to 140 °F)
Dimensions	Approx. 103 x 84 x 60 mm (4 1/16" x 3 5/16" x 2 3/8")
Weight	Approx. 330 g [11.6 oz]

INCLINEO - Technical Data

Parameter	INCLINEO technical data	
Measuring range	+/- 10°	
Resolution	0.0003° [1'']	
Error limits @ 22°C [Ta]	0.005 % full scale 0.03 % read-out	
Digital filter/average	3rd order with 0.3 / 1 / 3 Hz options	
Temperature range	Storage: -40 °C ...+85 °C [40 °F ...+185 °F] Operation: -10 °C ...+60 °C [14 °F ...+140 °F]	
Display	LCD display, 132 x 32 pixel with LED backlight	
Control elements	3 keys	
Communication	Wireless via integrated BT module	
External interface	RS-232 (serial) for computer and sensor; connector for dial gauge	
Power supply	AA battery, 2 pcs	
Battery status indicator	3 LEDs	
Data storage	Max. 999 measurements	

LEVALIGN expert - Technical Data

Parameter	LEVALIGN expert laser technical data
Wavelength	635 nm (red)
Laser class	II (<1mW)
Range	100 meters (Ø 200 meters) [328 ft, Ø 656 ft]
Leveling	Vertical or horizontal (can be switched off)
Self-leveling range	±5 %
Direction adjustment	±5 %
Rotating speed	max. 800 RPM
Total error	< ±25 µm + ±24 µm/m incl. conical + step + leveling error)
Power supply	Internal rechargeable battery or external power supply
Operating time	16 hours
Dimensions	Ø 130 mm x 270 mm
Weight	3.4 kg [7 1/2 lb]
Charger	Input: 100 - 240 VAC / 50 - 60 Hz / 340 mA Output: 12 VDC / 1200 mA / 14.4 W



Parameter	LEVALIGN expert sensor technical data
Resolution	0.01 mm
Accuracy	±0.02 mm
Measuring range	70 mm [2 3/4"]
Zero-point adjustment	70 mm
Internal memory	2600 points
Communication	Bluetooth
Power supply	2 x AA batteries
Dimensions	214 x 70 x 40 mm [[8 7/16" x 2 3/4" x 1 9/16"]
Weight	0.62 kg [21.9 oz]



Long Range Laser - Technical Data

Parameter	Long Range Laser
Type	GaAlAs semiconductor laser
Beam divergence	0.2 mrad
Wavelength, typical	675 nm for ALI 4.100 or 635 nm for ALI 4.100-IS (red, visible)
Beam diameter	8 mm
Beam power	< 1 mW
Safety class	Class 2, FDA 21 CFR 1000 and 1040
Laser range	up to 50 m [164 ft] depending on sensor
Adjustment range	Offset + 3 mm in X und Y Angular + 3° mm in X und Y
Adjustment accuracy	0.002 mm
Power supply	9 V block battery or LiIon rechargeable battery (optional)
Temperature range	-10°C to +50°C / [14°F to 122 °F] (Operation) -20°C to +80°C / [-4°F to 176 °F] (Storage)
Environmental protection	Electrical components IP 65 Mechanical components IP 20
Dimensions	approx. 90 x 90 x 150 mm [3 9/16" x 3 9/16" x 5 7/8"]
Weight	approx. 820 g [28.9 oz]

Productive Maintenance Technology



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