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# OPTALIGN® touch

Four decades of industry-leading technology



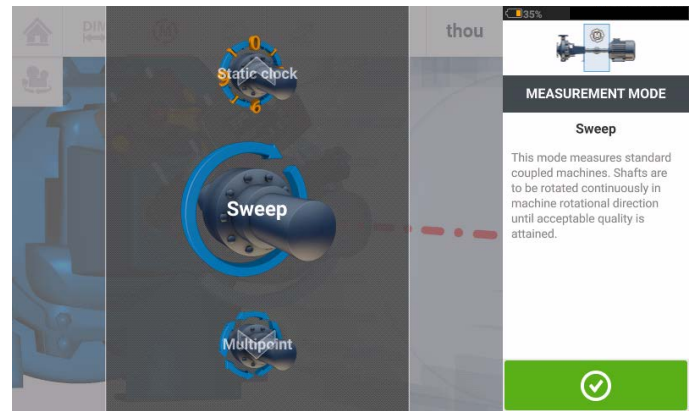
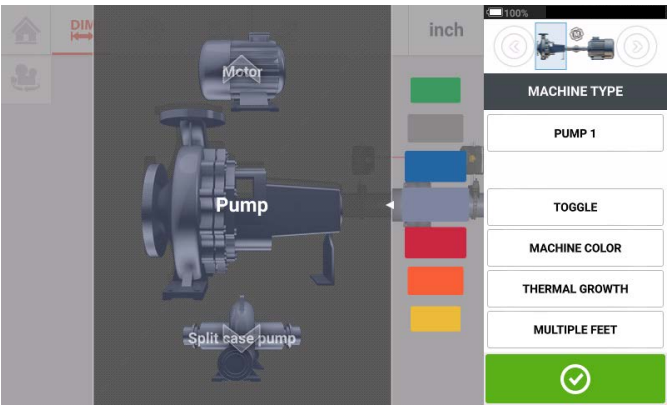
# Unprecedented versatility

## Align with confidence

### Custom Setup

Personalized setup allows for the selection of machine types and the input of properties and colors to replicate your machine trains.

Enter thermal growth data and target specifications to take into account any positional change that may occur under operating conditions.



### Measurement Versatility

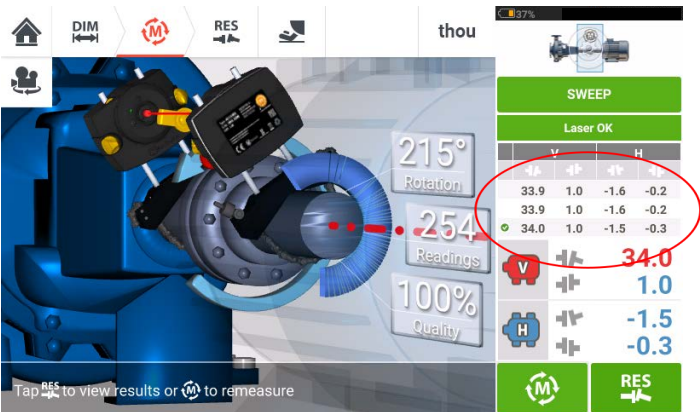
**CONTINUOUS SWEEP Mode** - for fast, accurate measurement. As the shafts rotate, hundreds of real measurement points are taken automatically, giving users confidence in their measurements after a single rotation.

**MULTIPOINT Mode** - for additional control of difficult alignments caused by sleeve bearings, gearboxes, long spans, excessive vibration, etc.

**PASS Mode** - a unique approach, new to the OPTALIGN® touch, designed for the measurement of uncoupled shafts.

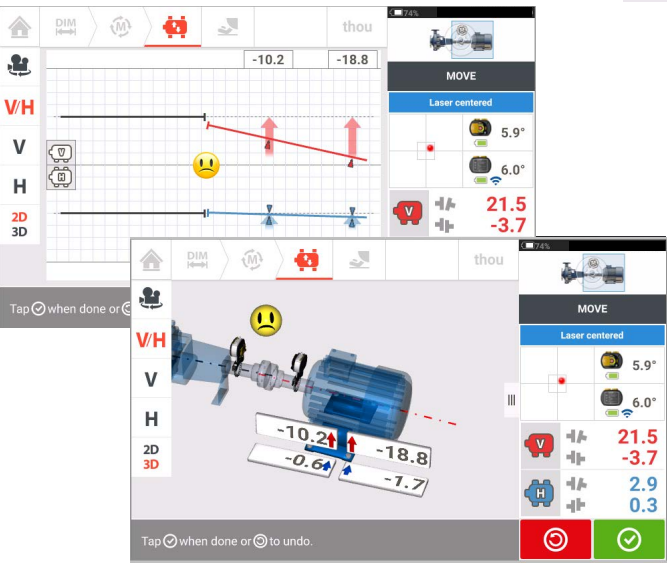
### Measurement and Result Tables

The results table on the measurement screen provides instantaneous feedback about the repeatability of multiple measurements.



The measurement table provides more detailed analysis of the measurement data and allows measurements to be averaged if required.

MEASUREMENT TABLE							thou
#	MEAS.	VERTICAL	HORIZONTAL	QUALITY			
		↑↓	↑↓	↑↓	QF	SD	
JOB 04.09.2019							
AS FOUND		33.7	1.9	-1.9	-0.4		
1		33.6	2.0	-1.9	-0.4	24%	4.6
2		33.8	1.9	-1.9	-0.4	100%	1.5
3		33.7	1.9	-1.9	-0.4	100%	1.1



### Simultaneous Live Move

View the vertical and horizontal corrections simultaneously in real time in either 2D or 3D, all on the same screen.

### Unsurpassed Accuracy, Repeatability, and Quality of Measurement

The sensALIGN® 5 sensors have the ability to capture hundreds of points within a single rotation. This allows it to achieve exceptional accuracy. Advanced quality algorithms provide feedback to the user and ensure repeatable results under the most demanding conditions.

### Overview of the OPTALIGN® touch packages

To meet your specific needs, choose from four hardware configurations, all with the same alignment functionality.

FULLY FEATURED	CONNECTIVITY	CAMERA	STANDARD



# Make complex tasks intuitive

A rugged design built for the field

## sensALIGN® 5 sensor and laser

5-axis sensor: perform live corrections in both vertical and horizontal planes with the heads in any angular position.

## Capacitive touchscreen

Glove-enabled capacitive touchscreen and a tablet-like user experience.

## Interactive GUI (Graphic User Interface)

A step-by-step graphic interface facilitates an intuitive alignment work flow.

## Speech recognition

Optional voice control frees up both your hands for when your alignment job gets hands-on. This feature requires the use of additional Bluetooth® enabled hardware.

## RFID

Easily identify and open the correct machine alignment asset to measure without risk of error.

## Durability

Rugged IP65 industrial housing and shockproof screen.



# The right brackets for the right job

# Technical data

A bracket for every task

## Compact Magnetic Bracket

- ▶ Versatile brackets for ultra quick attachment to back of the hub
- ▶ Makes for consistent location of the sensor
- ▶ Can eliminate the need for long chains
- ▶ Includes 115 mm [4 17/32"] posts



## Sliding Magnetic Bracket

- ▶ For non-rotatable shafts
- ▶ Attaches to back of the hub
- ▶ For diatemers > 80 mm [3 5/32"]
- ▶ Includes 150 mm [5 29/32"] posts



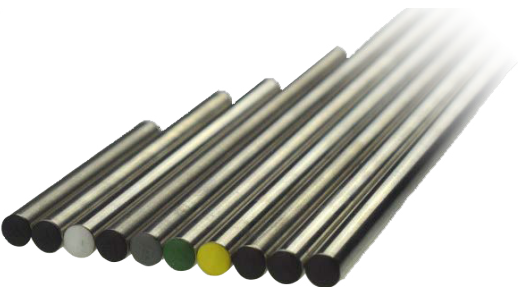
## Extra-Thin Brackets

- ▶ Quick and easy mounting
- ▶ Same width as the posts: 8 mm [5/16"]
- ▶ Permanent 150 mm [5 29/32"] posts for laser and sensor
- ▶ Threaded rods with quick-mounting slip nuts



## Posts

- ▶ Stainless steel support posts starting at 70 mm [2 3/4"]
- ▶ Colored end caps for easy identification of post lengths
- ▶ Diameter: 8 mm [5/16"]



\*All brackets are universally compatible with any PRUFTECHNIK laser-sensor pair.

## sensALIGN® 5 sensor

Type	5-axis sensor: 2 planes (4 displacement axes and angle) Measurement area: unlimited, dynamically extendible (U.S. Patent 6,040,903) Resolution: 1 µm (0.04 mil) and angular 10 µRad Accuracy (avg): > 98% Measurement rate: approx. 20 Hz
Inclinometer	Resolution: 0.1° Error: 0.3% full scale
LED indicators	1 LED for laser adjustment and battery status 1 LED for Bluetooth® communication
Power supply	Lithium-ion rechargeable battery: 3.7 V / 5 Wh Operating time: 10 hours (continuous use) Charging time: Using charger – 2.5 h for up to 90%; 3.5 h for up to 100% Using USB port – 3 h for up to 90%; 4 h for up to 100%
External interface	Integrated Bluetooth® 4.1 Smart Ready wireless communication USB 2.0 Full Speed
Transmission distance	Up to 30 m [98 ft] direct line of sight
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] Storage: -20°C to 60°C [-4°F to 140°F] Charging: 0°C to 40°C [32°F to 104°F]
Dimensions	Approx. 105 x 74 x 58 mm [4 9/64" x 2 29/32" x 2 1/4"]
Weight	Approx. 235 g [8 1/3 oz.]
CE conformity	Refer to the CE compliance certificate at <a href="http://www.pruftechnik.com">www.pruftechnik.com</a>

## sensALIGN® 5 laser

Type	Semiconductor laser diode
Beam divergence	0.3 mrad
Beam power	< 1 mW
Wavelength	630 – 680 nm (red, visible)
Safety class	The laser complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007
Safety precautions	Do not look into laser beam
Power supply	Batteries 2 x 1.5 V IEC LR6 ("AA") Operating time: 180 hours
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] Storage: -20°C to 60°C [-4°F to 140°F]
Dimensions	Approx 105 x 74 x 47 mm [4 9/64" x 2 29/32" x 1 27/32"]
Weight	Approx. 225 g [7 15/16 oz.]
CE conformity	Refer to the CE compliance certificate in <a href="http://www.pruftechnik.com">www.pruftechnik.com</a>

## touch computer

CPU	1.0 GHz quad core ARM ®Cortex-A9
Memory	2 GB RAM, 1 GB Internal Flash, 32 GB SD-Card Memory
Display	Technology: Projective capacitive multi-touch screen Type: Transmissive (sunlight-readable) backlit TFT color graphic display Optically bonded, protective industrial display, integrated light sensor for automated adjustment of the brightness to the display Resolution: 800 x 480 Pixel Dimensions: 178 mm (7") diagonal
LED indicators	3 LEDs for battery status, 1 LED for WiFi communication
Power supply	Operating time: 12 hours typical use (based upon an operating cycle of 25% measurement, 25% computation, 50% 'sleep' mode) Battery: Lithium-ion rechargeable battery 3.6 V / 80 Wh AC adapter/charger: 12 V / 36 W; standard barrel connector (5.5 x 2.1 x 11 mm)
External interface	USB host for memory stick USB slave for PC communication, charging (5 V DC /1.5 A) RS-232 (serial) for sensor, RS-485 (serial) for sensor I-Data for sensor Integrated Bluetooth® wireless communication (covers direct line of sight distances of up to 30 m / 100 ft depending on the prevailing environmental conditions) Integrated Wireless LAN IEEE 802.11 b/g/n up to 72.2 Mbps (depending on configuration) Integrated RFID with read and write capabilities (depending on configuration)
Environmental protection	IP 65 (dustproof and water jets resistant) — as defined in regulation DIN EN 60529 (VDE 0470-1), shockproof Relative humidity: 10% to 90%
Temperature range	Operation: 0°C to 40°C (32°F to 104°F) Charging: 0°C to 40°C (32°F to 104°F) Storage: -10°C to 50°C (14°F to 122°F)
Drop test	1 m (3 1/4 ft)
Camera	5 MP built-in (depending on configuration) LEDs: Risk Group 1 according to IEC 62471:2006
Dimensions	Approx. 273 x 181 x 56 mm (10 3/4" x 7 1/8" x 2 3/16")
Weight	Approx. 1.88 kg (4.1 lbs)
CE conformity	Refer to the CE compliance certificate in <a href="http://www.pruftechnik.com">www.pruftechnik.com</a>

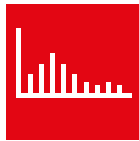
## Carrying case

Standard	HPX® Harz, drop tested [2 m / 6 1/2 ft.]
Dimensions	Approx. 551 x 358 x 226 mm [21 11/16" x 14 3/32" x 8 29/32"]
Weight	Including all standard parts - Approx. 10 kg [22 lb]

# PRUFTECHNIK. Maintenance today for a more reliable tomorrow.



Machine and shaft alignment



Machine and plant monitoring



Non-destructive material testing

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