ROTALIGN® touch
Precision Meets Connectivity
A new way to align

Laser alignment tool for the smart factory

ROTALIGN® touch is the first cloud-enabled touchscreen laser shaft alignment system with integrated mobile connectivity. With ROTALIGN® touch, alignment trend is fully integrated into your asset management and condition-based maintenance programs. Maintenance and Reliability managers can remotely prepare alignment jobs in the alignment software and connect to the Cloud to transfer them to a ROTALIGN® touch device, anywhere in the world. Alignment technicians receive alignment jobs directly on their ROTALIGN® touch device. Once completed, the jobs can be uploaded wirelessly back to the Cloud.

A direct connection from the ROTALIGN® touch to the alignment software is also possible. Built-in RFID machine identification and asset-specific jobs make it possible to track the alignment condition of individual assets over time. The alignment trend provides meaningful information and can be used as a condition monitoring parameter to diagnose machine condition even more accurately.

With the onboard camera alignment reports can easily be supplemented with pictures for easier knowledge transfer.

Real-time communication

Overview of the ROTALIGN® touch packages

Four different packages are available with various hardware configurations depending on your needs. All packages offer the same application level.
sensALIGN® on-board intelligence

The unique intelliSWEEP® sensor technology enables continuous measurements and real-time quality for precise, accurate and repeatable results. The intelliSWEEP® HD measurement mode automatically detects and eliminates sources of measurement errors such as coupling play, rotational angle or environmental vibration.

As shaft rotates, hundreds of real measurement points are taken automatically. The results are far more accurate than those based on 3 measurement positions.

Key shaft features at a glance:

- Intelligent measurement modes including uncoupled intelliPASS and intelliPOINT
- Measurement table including different alignment jobs
- Simultaneous Live Move with acoustic assistant

Powered by the unique sensALIGN® sensor and intelliSWEEP® measurement technology, ROTALIGN® touch features the simultaneous Live Move mode, now enhanced with an acoustic move assistant to guide you to the correct alignment.

- Customized tolerances (even asymmetrical)
- Machine train with real 3D machines
- Live Trend

Use the Live Trend monitoring function to analyze thermal or process-related machine positional changes during run-up and coast-down phases, while recording machine vibration at the same time.
Capacitive touchscreen
Glove-enabled capacitive touchscreen for longer life and a tablet-like user experience.

Interactive 3D machine view
Interactive 3D machine graphics throughout the alignment procedure for optimum visual guidance.

Speech recognition
Voice control frees up both your hands when the alignment job gets hands-on. The functionality may even be operated with Bluetooth® headsets in noisy machine halls.

RFID on board
Save, retrieve and track the alignment condition of individual assets over time, and easily identify the asset to be measured, without risk of error.

One-Key alignment
Perform standard alignment from start to finish by pressing only one key.

Durability
Tough industrial housing (IP65) and shockproof glass screen (above industry standard).
Unparalleled user experience

- Large screen with animated 3D view of machinery
- Results table to check measurement repeatability without navigating away from your measurements
- Onboard camera on the back side
- Sensor for display brightness adjustment
- Wi-Fi connection to cloud and alignment software for easy data exchange
- Bluetooth® Smart (3rd party sensor communication)
- On/Off button
- Sensor for display brightness adjustment
- Alignment wizard
- Large screen with animated 3D view of machinery
- Onboard camera on the back side
## Technical Data

### ROTALIGN® touch computer

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| **CPU**                       | Processor: 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%                                                                                                       |
| **Drop test**                 | 1 m (3 1/4 ft)                                                                                                                                                                     |
| **Temperature range**         | Operation: 0°C to 40°C (32°F to 104°F)  
                                Storage: -10°C to 50°C (14°F to 122°F)                                                                                                                                          |
| **Dimensions**                | 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)                                                                                                                                                            |
| **Camera**                    | 5 MP built-in (depending on configuration)  
                                LEDs: Risk Group 1 according to IEC 62471:2006                                                                                                                                 |
| **CE conformity**             | Refer to the CE compliance certificate in www.pruftechnik.com                                                                                                                                                                           |
| **Carrying case**             | Standard: ABS, drop tested (2 m / 6 1/2 ft.)  
                                Dimensions: Approx. 470 x 388 x 195 mm (18 1/2” x 15 9/32” x 7 11/16”)  
                                Weight: Including all standard parts – Approx. 8.5 kg [18.7 lb]                                                                                                                                                                      |
| **FCC compliance**            | Requirements fulfilled (refer to the provided document “Safety and general information”)                                                                                         |

### sensALIGN® sensor

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
</table>
| **CPU**                       | Type: ARM Cortex™ M3  
                                Memory: 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                                                                                                            |
| **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: -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)                                                                                                                                                             |
| **Measurement range**         | Unlimited, dynamically extendible (US. Patent 6,040,903)                                                                                                                           |
| **Measurement resolution**    | 1 μm                                                                                                                                                                               |
| **Measurement error**         | < 1.0%                                                                                                                                                                              |
| **Inclinometer resolution**   | 0.1°                                                                                                                                                                                |
| **Inclinometer error**        | ± 0.25% full scale                                                                                                                                                                 |
| **Vibration measurement**     | mm/s, RMS, 10Hz to 1kHz, 0 mm/s – 5000/f • mm/s² (f in Hertz [1/s])                                                                                                                |
| **External interface**        | Integrated Bluetooth®Class 1 wireless communication, RS232, RS485, I-Data                                                                                                                                                                      |
| **CE conformity**             | Refer to the CE compliance certificate in www.pruftechnik.com                                                                                                                                                                           |

### sensALIGN® laser

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
<td>Semiconductor laser</td>
</tr>
<tr>
<td><strong>LED indicators</strong></td>
<td>1 LED for laser transmission 1 LED for battery status</td>
</tr>
</tbody>
</table>
| **Power supply**              | Operating time: 70 hours continuous use (Li-polymer battery)  
                                Battery: Lithium Polymer rechargeable battery 3.7 V / 1.6 Ah 6 Wh AC adapter/charger: 5 V / 3 A                                                                                                                                       |
| **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: -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)                                                                                                                                                             |
| **Beam power**                | < 1mW                                                                                                                                                                               |
| **Beam divergence**           | 0.3 mrad                                                                                                                                                                            |
| **Inclinometer resolution**   | 0.1°                                                                                                                                                                                |
| **Inclinometer error**        | ± 0.25% full scale                                                                                                                                                                 |
| **CE conformity**             | Refer to the CE compliance certificate in www.pruftechnik.com                                                                                                                                                                           |
PROVETECHNIK

Proven technology for all industries

With our products, processes and services for alignment applications, condition monitoring and availability optimization, we help ensure that your machines run smoothly and generate an output of consistently high quality. This also includes systems for automatic process control and quality assurance that are integrated directly in your production process.

PRUFTECHNIK delivers maintenance solutions worldwide

Laser measurement systems and services for optimum alignment of machines and systems.

Vibration measurement systems for machine condition monitoring — including services such as machinery fault diagnosis.

Systems and services for quality assurance and process control in production.

We offer professional services anywhere in the world to support our customers with alignment and condition monitoring.

www.pruftechnik.com

COPYRIGHT © 2016 BY PRUFTECHNIK DIETER BUSCH AG.

ROTAALIGN®, sensALIGN® and intelISWEEP® are registered trademarks of PRUFTECHNIK Dieter Busch AG. No copying or reproduction of this information, in any form whatsoever, may be undertaken without express written permission of PRUFTECHNIK Dieter Busch AG. The information contained in this leaflet is subject to change without further notice due to the PRUFTECHNIK policy of continuous product development. PRUFTECHNIK products are subject to patents granted or pending throughout the world.

© Copyright 2016 by PRUFTECHNIK Dieter Busch AG.

PRUFTECHNIK Dieter Busch AG
Oskar-Messter-Str. 19-21
85737 Ismaning, Germany
Tel.: +49 89 99616-0
Fax: +49 89 99616-200
info@pruftechnik.com
www.pruftechnik.com