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# ROTALIGN touch EX– Shaft alignment in Zone 1

ROTALIGN touch EX is the premium alignment system for hazardous environments. The ruggedized EX tablet intuitive user-interface combined with comprehensive shaft alignment features breaks new ground for maintenance personnel.

## Application

- Horizontal, vertical and flange-mounted rotating machines
- Coupled, uncoupled and non-rotatable shafts
- Cardan shafts



## Features

- ATEX certified for Zone 1
- sensor ALIGN 5 featuring single-beam laser technology
- SWEEP and PASS measurement mode
- Wireless data transmission
- Automatic evaluation of alignment condition using smileys
- Simultaneous monitoring of both horizontal and vertical Live Move corrections
- Consideration of alignment targets and thermal growth
- Soft foot Diagnosis
- Mobile connectivity integrated: WLAN, Bluetooth, RFID, Camera

- ARC 4.0 PC software for data transfer via cloud

## Ordering information

ROTALIGN touch EX is available in two variants.

Item No.	Variant
<b>ALI 52.000-Z1</b>	ROTALIGN touch EX package, Zone 1
<b>ALI 52.000-Z1.NA</b>	ROTALIGN touch EX package, Zone 1, North America

The items delivered within the box are shown in the following overview.

### Scope of supply

### Optional accessories

## TECHNICAL INFORMATION

### Technical data

#### Parameter

#### ROTALIGN touch EX technical data

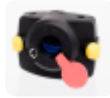


#### TABLET

<b>CPU</b>	Exynos 7 Octa, 1.6 GHz Octa-Core (Cortex (R)-A53)
<b>Memory</b>	3 GB RAM, 16 GB Flash
<b>Display</b>	8" TFT, 1280 x 800 Pixel
<b>Connectivity</b>	Wi-Fi 802.11 a/b/g/n/ac (2.4 GHz + 5 GHz)
<b>Cameras</b>	8 MP AF + 5 MP
<b>Power supply</b>	Li-Ion rechargeable battery 3.8 V / 4450 mAh / 16.91 Wh
<b>Operating time</b>	approx. 11 h
<b>Environmental protection</b>	IP 68
<b>Temperature range</b>	Operation: -20 °C to 50 °C (-4 °F to 122 °F)
<b>Dimensions</b>	approx. 162 x 256 x 33 mm (6 1/3" x 10" x 1 1/3")
<b>Weight</b>	approx. 1250 g (2.75 lb)

## Parameter

## ROTALIGN touch EX technical data

**INTRINSICALLY SAFE sensALIGN 5 sensor****Type**

5-axis receiver: 2 planes (4 displacement axes and angle)  
 Measurement area: unlimited, dynamically extendible (U.S. Patent 6,040,903)  
 Resolution: 1  $\mu\text{m}$  (0.04 mil) and angular 10  $\mu\text{Rad}$   
 Accuracy (avg): > 98%  
 Measurement rate: approx. 20 Hz

**Environmental protection**

IP65 (dustproof and water jets resistant)  
 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)

**Dimensions**

Approx. 105 x 67 x 47 mm (4 5/32" x 2 5/8" x 1 55/64")

**Weight**

Approx. 190 g (6 7/10 oz.)

**INTRINSICALLY SAFE sensALIGN 5 laser****Type**

Semiconductor laser diode

**Beam divergence**

0.3 mrad

**Beam power**

< 1 mW

**Wavelength**

630 – 680 nm (red, visible)

**Safety class**

Class 2 according to IEC 60825-1:2014  
 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

**Parameter****ROTALIGN touch EX technical data**

<b>Power supply</b>	Batteries: 2 x 1.5 V IEC LR6 ("AA"), only use Duracell Industrial ID 1500 or Energizer E91 Operating time: 120 hours
<b>Environmental protection</b>	IP65 (dustproof and water jets resistant) Shockproof Relative humidity 10% to 90%
<b>Temperature range</b>	Operation: -10 °C to 50 °C (14 °F to 122 °F) / Storage: -20 °C to 60 °C (-4 °F to 140 °F)
<b>Dimensions</b>	Approx. 105 x 74 x 47 mm (4 5/32" x 2 15/16" x 1 55/64")
<b>Weight</b>	Approx. 225 g (8 oz.)

**INTRINSICALLY SAFE RF MODULE**

<b>Details</b>	2.4 GHz Class 1 connectivity Transmitting power: 100 mW Transmission distance: Up to 10 m (33 ft.) direct line of sight FCC-ID POOWML-C40
<b>LED indicators</b>	1 LED for wireless communication 3 LEDs for battery status
<b>Power supply</b>	2 x 1.5 V IEC LR6 ("AA") batteries, only use Duracell Industrial ID 1500 or Energizer E91 Operating time: 14 hours typical use (based upon an operating cycle of 50% measurement, 50% standby)
<b>Temperature range</b>	Operation: -10 °C to 40 °C (14 °F to 104 °F)
<b>Environmental protection</b>	IP 65 (dustproof and water jets resistant) Shockproof Relative humidity 10% to 90%
<b>Dimensions</b>	Approx. 81 x 41 x 34 mm (3 1/8" x 1 11/16" x 1 5/16")
<b>Weight</b>	Approx. 133 g (4.7 oz.) including batteries and cable

**Intrinsic safety details**

**ROTALIGN touch EX****Marking (ATEX)****Ambient temperature (Ta)**

Tablet PC	II 2G Ex db ia op is IIC T5 Gb	-20 °C ...+50 °C (-4 °F to 122 °F)
Sensor	II 2G Ex ib IIC T4 Gb	-10 °C ...+50 °C (14 °F to 122 °F)
Laser	II 2G Ex ib op is IIC T4 Gb	-10 °C ...+50 °C (14 °F to 122 °F)
RF module	II 2 G Ex ib IIC T4 Gb	-10 °C ...+40 °C (14 °F to 104 °F)

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