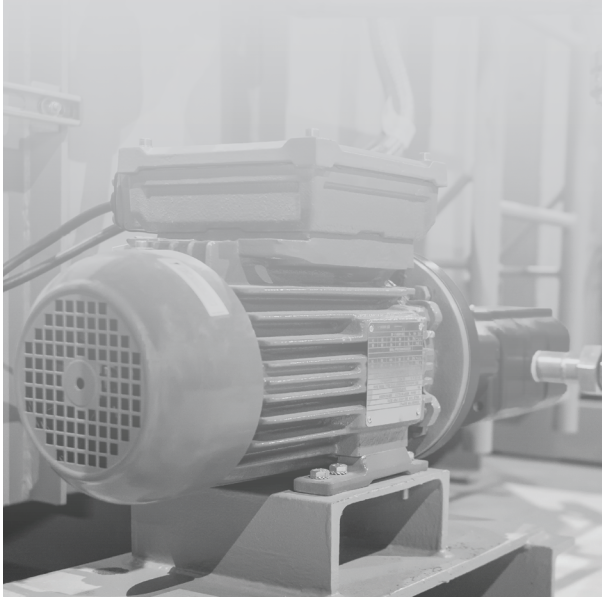
TECHNICAL DATA

Fluke™ 832 Laser Shaft Alignment tool

Redefining the standard for solving alignment challenges

Adaptive Alignment represents a breakthrough in precision maintenance—merging intelligent software with next-generation hardware to tackle a spectrum of alignment challenges, from horizontal parallel and angular to vertical. This smart technology empowers reliability teams to work faster, smarter, and with greater confidence, unlocking new levels of operational efficiency and team productivity.

As the benchmark for innovation in alignment systems, the Fluke 832 delivers a comprehensive suite of adaptive features that redefine accuracy and speed. With built-in intelligence to minimize human error and streamline workflows, it sets a new industry standard for performance and reliability in machine alignment.



Introducing Fluke 832

The Fluke 832 was designed by some of the world's leading alignment experts to solve problems in the easiest way possible. Featuring the unique single-laser, double detector technology laser and sensor heads, it enables powerful, fast, and efficient alignment on rotatable shafts and machines.

The Fluke 832 is engineered for standard machinery and everyday alignment tasks. It seamlessly integrates hardware, software, and wireless connectivity to deliver accurate shaft alignment data directly to and from the cloud. With a user-friendly, guided interface, virtually anyone can operate the system by following three simple steps: enter dimensions, take measurements, and view results.

Key benefits at a glance

- **Streamlined Setup:** Single-laser technology simplifies installation with just one sensor and non-adjustable laser, reducing setup time and complexity.
- **High-Precision Alignment:** Dual optical planes and Freeze-Frame Measurement ensure accurate results even with extreme misalignments—without manual pre-alignments.
- **Real-Time Corrections:** Simultaneous live move capability enables technicians to view and adjust alignment in both vertical and horizontal planes instantly, minimizing errors and saving time.

The Fluke 832 is redefining adaptive alignment, setting a new industry standard.

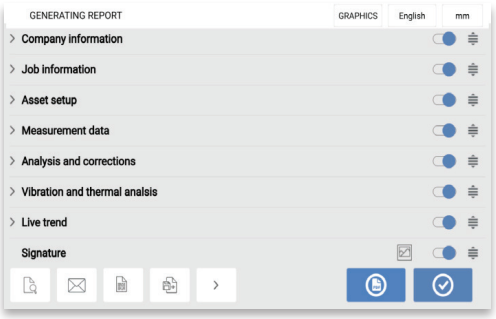
Rugged Tablet Built for Industrial Performance

The Fluke 832 Tablet pairs an octa-core processor with a bright, durable 8-inch Gorilla® Glass display, delivering smooth performance and clear visibility even outdoors. Its 6100 mAh battery provides up to 11 hours of use, supporting long maintenance shifts without frequent recharging.

Built for harsh environments, the tablet meets IP65 standards, survives 1.2-meter drops, and operates reliably in extreme temperatures. With Wi-Fi 6, Bluetooth 5.1, RFID capability, USB-C connectivity, and high-quality front and rear cameras, it streamlines data transfer, documentation, and field collaboration.

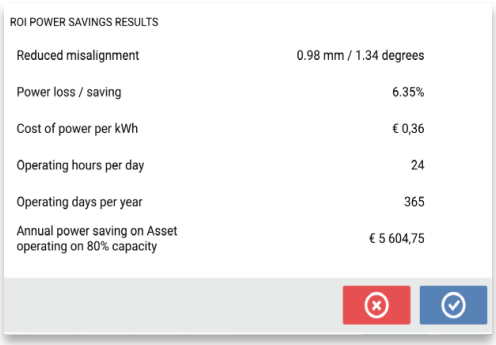
Customizable Reports

Create tailored reports with ease using the Fluke 832's flexible reporting options. Choose from pre-installed full or short templates, or use your own custom layouts. Select exactly what data and graphics to include, rearrange major sections to suit your workflow, and save personalized templates for future use, ensuring every report meets your team's needs with precision and efficiency.



Built-in ROI Calculator

The integrated ROI calculator in the Fluke 832 provides instant visibility into the financial benefits of precision alignment. By calculating savings from reduced downtime, extended equipment lifespan, and improved energy efficiency, users can quantify the value of each alignment task. This feature supports informed decision-making, helps justify maintenance investments, and enhances operational efficiency within a single, user-friendly interface.



The Fluke 832 is built for connected reliability, enabling seamless cloud-based data sharing with ARC 4.0 PC software. This connectivity bridges the gap between field technicians and reliability teams, enhancing collaboration and performance tracking.

By integrating alignment data into broader reliability workflows, the Fluke 832 helps teams work smarter and faster, unlocking full capacity to solve alignment challenges with precision and insight.

Advanced Capability

The Fluke 832 offers advanced capabilities, unmatched in terms of ease of use, enabling teams to achieve even the most challenging alignment demands.

- ☑ Short-Flex coupling & Tolerances
- ☑ Live Move H and V
- ☑ Soft Foot
- ☑ 8-Point Active Clock
- ☑ Space Coupling
- ☑ Vertical Alignment
- ☑ Quality Factor & SD
- ☑ Thermal Growth & Coupling Targets
- ☑ Static Feet & Multiple Feet

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A look behind the curtain

Single Laser Technology – the key to precision alignment:

The inherent Fluke single-laser technology provides precise measurement results and the easiest mounting and measuring in the field. The Fluke 832 sensor includes two HD position sensitive detectors (PSD) and MEMS inclinometers. These combined with detector extension capability make it possible to measure and document the initial alignment condition.

Simultaneous Live Move – an unbeatable benefit

Simultaneous Live Move, another strong problem-solving feature, allows the user to evaluate the physical alignment corrections in real time in both vertical and horizontal directions. No matter what measuring mode used or in what angle or direction the laser and sensor heads come to stop, leave them mounted as the machine is shimmed and adjusted as proposed by the tablet.

- Monitor the alignment process in real time on the handheld tablet display
- Instantly see the physical alignment result
- Colored tolerance smiley faces show the condition of alignment quality
- Quickly re-measure to confirm the alignment result

Profit from ASI – Active Situational Intelligence

The Fluke 832 offers different measuring modes to align coupled and uncoupled shafts on horizontally and vertically mounted machined. It adapts to the user's experience and skill level as well as to the alignment challenge for a variety of industrial assets. Check out these features:

- **8-Point Active Clock**
  This measurement method takes readings at eight positions to reduce possible errors caused by shaft play or backlash, leading to more precise alignment elliptical calculations.

- **Quality Factor & SD**
  This feature performs statistical analysis on measurement data using standard deviation to identify erroneous readings caused by external factors like vibration or shaft movement. This helps technicians detect issues affecting the measurement quality and improves confidence in the alignment results

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Fluke Shaft Alignment Tablet

General specifications		
CPU	Processor:	Octa-Core (8): 2.2 GHz (2) and 1.8 GHz (6)
	Memory:	4 GB LPDDR4X SDRAM/64 GB UFS Flash
Display	Technology:	Corning® Gorilla® Glass
	Resolution:	600 nits, color WXGA 1280x800
	Dimensions:	8 inch/20.3 cm
Power Supply	Operating time:	Up to 11 Hours
	Battery:	6100 mAh 3.87 V rechargeable Li-Ion Polymer; (23.61 Wh)
	Charging:	USB-C
Connectivity	Wifi:	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w/mc/ax 2x2 MU-MIMO; Wi-Fi® certified; IPv4, IPv6 (Wi-Fi 6)
	Bluetooth:	Bluetooth v5.1 / 2.1+EDR Class 2 (Bluetooth LE)
	RFID:	Integrated RFID with read and write capabilities Docking connector (charge and data) USB-C side port (tablet charging and data only)
Environmental protection	IP 65:	Dustproof and water jets resistant
	Relative humidity:	5% to 95% non-condensing
Drop test	1.2 m (4 ft)	
Temperature range	Operation:	-20°C to 50°C (-4°F to 122°F)
	Storage:	-40°C to 70°C (-40°F to 158°F)
Dimensions	267 mm L x 171 mm H x 35 mm D 10 33/64” x 6 47/64” x 1 3/8”	
Weight	930 g/2.1 lbs	
Camera	Rear:	Image capture: 13 MP auto-focus camera with user controllable LED flash
	Front:	5MP
CE conformity	Refer to the CE compliance certificate in www.fluke.com	
Carrying case	Dimensions	595 x 355 x 115 mm (23 1/2” x 14” x 4 1/2”)

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Fluke 832 Sensor

General specifications		
Type	6-axis	2 planes (4 displacement axes and 2 angles)
Measurement	Optical range	14 x 14 mm (0.55 x 0.55 in.)
	Area	Unlimited, dynamically extendible
	Resolution	1 µm (0.04 mil); Angular 10 µRad
	Error	< 2%
	Transmitted rate	Approx. 20 Hz
Inclinometer	Resolution	0.1°
	Error	Roll +-1°; Pitch +- 3°
LED indicators	1 LED for laser adjustment, battery and charge status; 1 LED for BT communication	
Power supply	Battery	Lithium-Ion rechargeable battery 3.7 V, 4.7 Wh
	Operating time	30 hours (continuous use)
	Charging time	2.5 h for up to 80%; 4 h for up to 100%
	Charging	USB-C
External interface	Integrated low power 2.4 GHz Radio (BT LE); USB 2.0 Full Speed	
Radio transmission distance	Up to 50 m (160 ft) direct line of sight	
Environmental protection	IP 65	Dustproof and water jets resistant, shockproof
	Relative humidity	10% to 90%
Ambient light protection	Optical and active electronic digital compensation	
Temperature range	Operation	-10°C to 50°C (14°F to 122°F)
	Charging	0°C to 35°C (32°F to 95°F)
	Storage	-20°C to 50°C (-4°F to 122°F)
Dimensions	Approx. 104 x 72 x 54 mm (4 1/8” x 2 13/16” x 2 1/8”)	
Weight	Approx. 231 g (8.2 oz)	
CE conformity	Refer to the CE compliance certificate in www.fluke.com	

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Fluke 832 Laser

General specifications		
Type	Semiconductor laser diode	
Laser	Power	< 1 mW
	Divergence	0.3 mrad
	Wavelength	630-640 nm (red, visible)
	Separation distance	Up to 10 m
	Adjustment	No
	Safety class	Class 2 according to IEC 60825-1:2014 Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed. 3., as described in Laser Notice No. 56, dated May 8, 2019. Safety precaution: Do not look into laser beam
Inclinometer	Resolution	0.1°
	Error	Roll +-1°
LED indicators	1 LED for battery and charge status	
Power supply	Battery	Lithium-Ion rechargeable battery 3.7 V, 4.7 Wh
	Operating time	40 hours (continuous use)
	Charging time	2.5 h for up to 80%; 4 h for up to 100%
	Charging	USB-C
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 35°C (32°F to 95°F)
	Storage	-20°C to 50°C (-4°F to 122°F)
Dimensions	Approx. 101 x 75 x 37 mm (4” x 2 15/16” x 1 7/16”)	
Weight	Approx. 190 g (6.7 oz)	
CE conformity	Refer to the CE compliance certificate in www.fluke.com	

Fluke. Keeping your world up and running.™