



# AT-400 Technical Datasheet

Shaft Alignment System | Geometric Measurement System

## M9 & S9 Sensors

Hardware Type M9 1-1216, S9 1-1217

## Physical

Housing Material Anodized Aluminum frame and high impact ABS plastic.

Weight M9: 10.8 oz (306 g)  
S9: 10.8 oz (306 g)

Dimensions TD9: 3.9 in x 3.0 in x 1.7 in  
(100mm x 77.3mm x 43mm)

## Environment

Operating Temperature 14 to 122 °F (-10 to 50 °C)

Storage Temperature -4 to 158 °F (-20 to 70 °C)

Long Term Storage Room Temperature 64 to 82 °F (18 to 28 °C)

Battery Charging Temperature 32 to 104 °F (0 to 40 °C)

Relative Humidity 10 – 90 %

Environmental Protection IP65 (Dust tight and protected against water jets)

## Sensing Technology

Laser 650 nm class II diode laser

Laser Power < 1 mW

Measurement Distance 2.48 in to 65.6 ft (63mm to 20m)

Detector 2-axis PSD

Detector Size 0.79 in x 0.79 in (20mm x 20mm)

Detector Resolution 1 μm

Measurement Accuracy 1% ± 3 μm

Signal Processing Digital signal processing with sidespot rejection, edge detection, ambient light elimination and anti-vibration mode.

Ambient Light Protection	Optical Filtering and Ambient Light Signal Rejection.
Inclinometer	Dual High Performance MEMS inclinometers
Inclinometer Resolution	0.01°
Inclinometer Accuracy	±0.1°
Gyroscope	6-Axis MEMS Inertial Motion Sensor with Drift Compensation and Automatic Field Calibration
Gyroscope Accuracy	±1°

## Battery

Type	High Performance Li-ion Rechargeable Battery or External Power
Operating Time	8 Hours Continuous Use (Measuring)
Charging	8 Hours
LED Indicators	Unit State, Laser Transmission and 5 Battery Status Indicators with Instant Battery Check

## Communication

Wireless Communication	Bluetooth Low Energy (Bluetooth 5)
Communication Range	33 ft (10m)
Connectors	1 USB Mini Port (IP67)

## Acoem Alignment Display Unit

Display	<ul style="list-style-type: none"> <li>· Sunlight Readable</li> <li>· Capacitive Multi-Touch Display</li> <li>· Super-Hardened Gorilla Glass</li> <li>· Rain and Glove Mode</li> </ul>
Display Size	8 in
Ruggedness Rating	<ul style="list-style-type: none"> <li>· IP67 (Including Ports)</li> <li>· Waterproof and Dust-Tight</li> </ul>
Operating Temperature	-4°F to 140°F (-20°C to 60°C)

Go to [acoem.us/at-400](https://acoem.us/at-400) to learn more or request a quote

