



LumiSens Bearing

Optical sleeve measures real operating loads directly at the bearing



See how a bearing is really operated in the operation, in stead of assuming what is happening

Bearings are the most common failure point in rotating equipment and temperature sensors react too late; vibration picks up damage already in progress. The real question was never *if* the bearing would fail, it's *what loads caused it* and *how much time do I have*.



Direct load measurement at the source

Radial force, axial force, load angle and temperature measured directly at the bearing. Actual loads, in real time.



Detect degradation before damage

Track load distribution changes, misalignment, and abnormal force patterns months before they escalate or for design. Root cause visibility, not just symptom detection.



Fits any bearing, any industry

Integrates into standard bearing housings across wind turbines, marine drivetrains, pumps, and industrial gearboxes. Non-intrusive, retrofittable, built for harsh environments.

Months

Earlier fault detection vs. vibration monitoring

Operation

Exact operation conditions for design and simulations

1-3%

Force measurement accuracy

Use-cases

1

Design and warranty

Unknown exact loads and life, use the exact condition from the field to improve simulations and design more reliable and clarify warranty discussions

2

Condition monitoring

Improve condition monitoring with both operation conditions and vibration data available predict earlier, with exact root-cause and improve availability.

3

Operation optimization

Exact operation loads determine running "life", optimize production and wear. In order to optimize production, the exact operation loads are crucial.