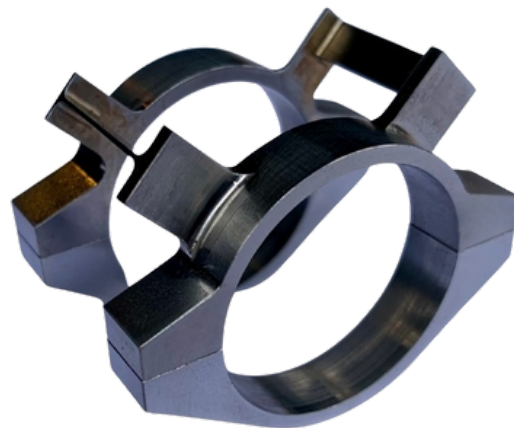


FORCEBIT SENSOR SOLUTIONS

FORCEBIT



Wireless, add-on sensor measuring torque, bending moments and angular speed/acceleration/displacement on rotary drives

FORCEbit is a **compact, plug-and-play sensor** designed to measure **torsional and bending loads**, as well as **angular displacement, velocity, and acceleration**. Strain gauge-based, it uses a **flexible spring** that deforms with the axis under load, ensuring **accurate measurement**. Its easy-to-install, add-on design requires no modifications to existing systems, making it ideal for retrofitting.

Key Benefits:

- **Quick access to data:** Instant measurement of torque and bending loads
- **Compact & non-intrusive:** Fits seamlessly into existing systems without altering drivetrain
- **Robust Design:** Resistant to non-torque forces and overloads, ensuring accurate measurements

Why FORCEbit stands out:

- **No mechanical filter:** Unlike traditional torque sensors, FORCEbit captures the full range of load data, providing more precise insights
- **Easy Installation:** No system modifications needed, enabling fast implementation
- **Accurate load monitoring:** Provides essential data on torsional loads, bending, and angle monitoring for performance assessment
- **Advanced calibration:** Corrects for cross-sensitivity and temperature, outperforming traditional strain gauges

FORCEbit streamlines prototyping and optimization, giving you the critical data needed to **improve equipment performance, efficiency, and durability**. Perfect for industries focused on high-performance, sustainable solutions.

Choose precision, simplicity, and convenience with our innovative sensor solution.

Torque range	accustomed to shaft	Space requirements	34 mm axially, 16 mm radially
Temperature accuracy	0.5°C	Weight	<200 g @ 32 mm diameter
Rotational displacement	0.25° for horizontal shafts	Operating temperature	-40°C to 60°C
Sampling rate	up to 4 kHz	possible diameter range	25mm-125mm
resolution	12-bit	Allowable variation	1 mm
synchronicity	10 micro-seconds	RPM	5000 RPM @ d=50mm
Signal output	.csv	Autonomy (rechargeable)	50 hours @ 4 kHz

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