WSM-2

WIRELESS STRAIN MEASUREMENT

WIRELESS TECHNOLOGY

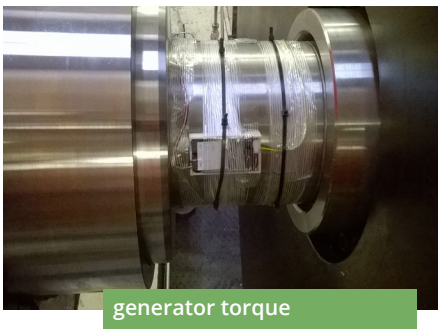
ROBUSTNESS

EASY INSTALLATION

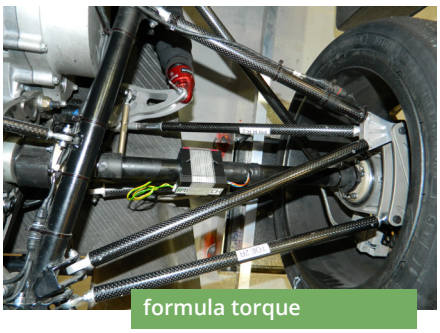
KEY FEATURES

A module developed for wireless measurement of strain. Thanks to its compact dimensions and high robustness, it is especially designed to measure torque and forces acting on rotating parts of machines. Moreover, it can be used wherever it is necessary to measure strain. Wireless transmission allows for the module to be placed close to the place of measurement, which greatly facilitates cabling. Module control and transmission of measured data is carried out remotely in our special software.

- Wireless measurement technology is easy to apply anywhere
- High robustness allows for installation even under demanding operating conditions
- Easy remote operation thanks to its own intuitive application



generator torque



formula torque

APPLICATION

STRAIN MEASUREMENT

WSM (Wireless Strain Measurement) module enables you to precisely measure strain even in very inaccessible places. From strain measurements it is possible to derive part stress, acting forces and torques. This information can help you during development, diagnostics or for the monitoring of operation of machine parts.

- It measures strain by resistance strain gauge
- You can determine the internal stress, or the forces and torques that are in effect
- Sampling frequency up to 32 kHz

Strain gauges are electrotechnical components that operate on the basis of a change in resistance that is dependent on the strain of the surface of a particular component or machine part. Measurements are based on the essence of the so-called Hooke's law. Thanks to this technology, you can verify computation models or detect excessive structural stress to protect your machines from damage.

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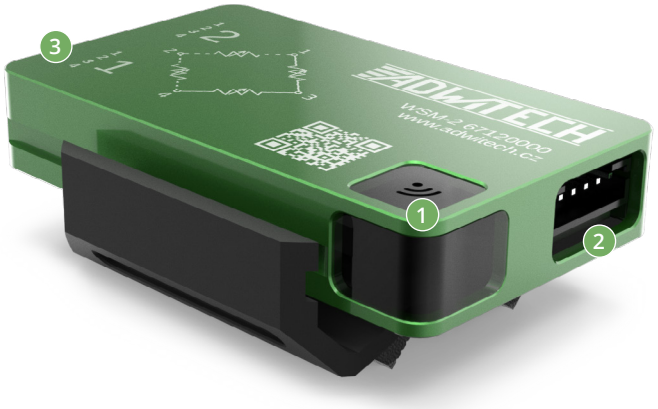
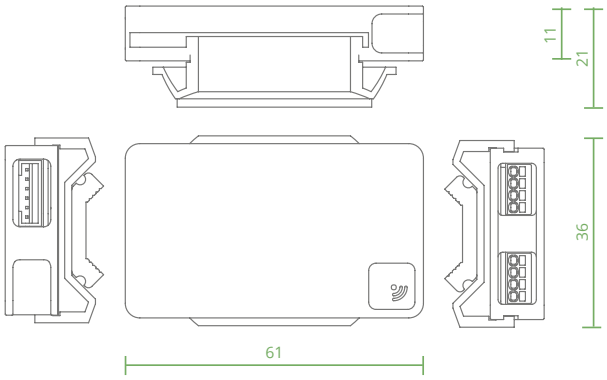
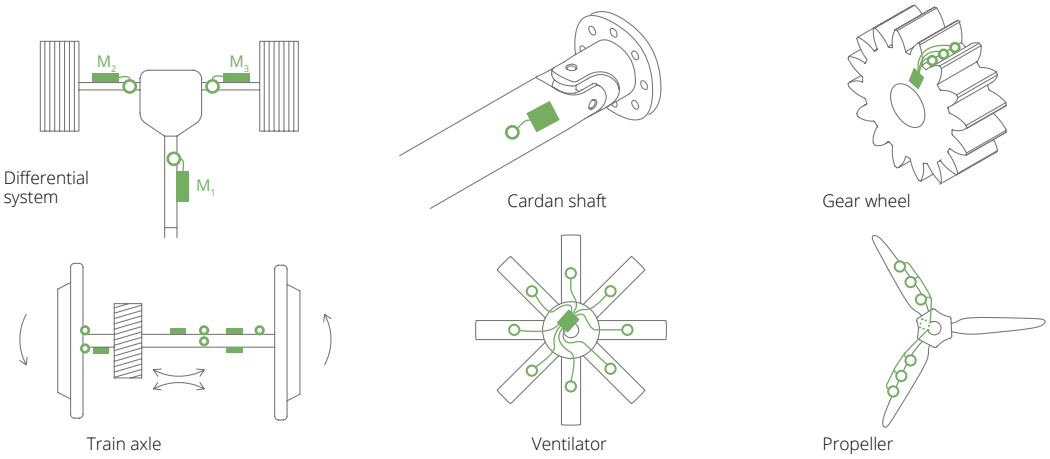




1. Wireless connection for remote control and transmission of measured data. Signal transfer works even under demanding conditions on the rotor of large electric machines reaching a distance of up to 20 meters.
2. Power connector for external battery, wireless power transfer, etc. Input range of supply voltage is 3 to 15 V.
3. Input spring terminals for connecting strain gauges in a full or half bridge configuration. The input range is adjustable as well as a sampling frequency which can be set up to 32 kHz.

APPLICATION EXAMPLES



SPECIFICATION

Strain gauge inputs	
configuration	half/full bridge
range	0,35 - 8 mV
function	automatic offset compensation
Sampling frequency	**up to 32 kHz**
A/D converter resolution	**16-bit**
Internal temperature sensor	**yes**
Radio signal range	**up to 20 m**
Weight	**50 g**
Degree of protection	**IP50**
Max. continuous acceleration	**2000 g**
Operating temperature	**-10–60 °C**
Power supply range	**3–15 V**

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