# **ELAG**



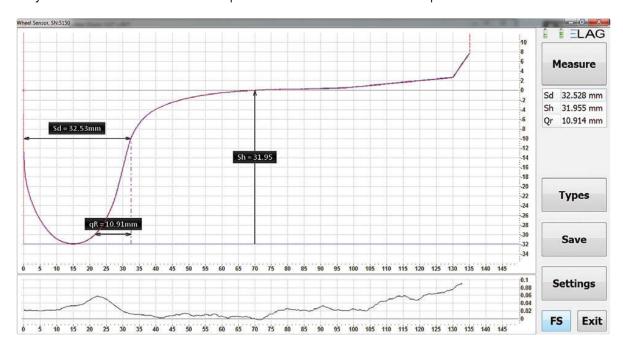
Wheel Profile Sensor



# **Wheel Profile Sensor**

The new Optimess WP wheel profile sensor has been designed to measure wheel profile and wheel diameter rapidly and with the highest precision. A contactless laser scan of the wheel profile is performed and different profile parameters are calculated and displayed automatically.

The measurement process, wheel and the type of train can be configured freely, and the fully automated measurement is performed with a one-button operation.



- Highest precision (± 25µm)
- Quick measurement of wheel profile and diameter (<5s)</li>
- Wireless communication between sensor and tablet using Bluetooth
- Measurement in confined spaces
- Risk-free operation, without reaching between the wheel and the rail by hand
- Simple and intuitive user interface
- Online profile comparison

- Custom configuration of wheel and train type, unlimited quantity
- Data export in different formats (Excel, CSV and XML)
- User management
- Unicode support (UTF-8)
- Multilingual (German, English, French, Chinese)
- Up to 700 measurements per battery charge
- Quick battery charge (<1h)

#### Handling





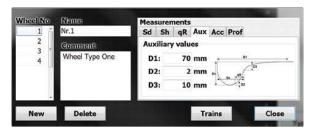


## OPTIMESS® WP

#### **Software**

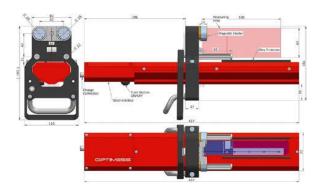
The measurement programme is used for the simple measurement of single wheels, axles or entire trains. The profile is displayed online during the measurement. The required profile values are available as soon as the measurement has been completed, and will be displayed in colour-coded form based on the pre-set tolerance values. Thus the values can be checked easily immediately after the measurement. A train inspection is managed by the programme using a graphical overview, and the next measurement starts at the touch of a button.

The programme runs on Windows 7 or higher. Different Windows 10 tablet solutions are available for collecting the data.





#### **Technical data**



Type: OMS 15037		
Measurement range	60 (9-69)	mm
Distance resolution	5	μm
Distance precision	±25	μm
Scan range	160	mm
Scan resolution	1	μm
Scan precision	± 2	μm
Scan straightness	±10	μm
Battery time	> 500 Measurements	
Operating temperature	-15 to 50	°C

### **Optional equipment**

#### Wheel flange distance Ar measurement module

The compact measurement module integrated in the wheel profile sensor. The electronic tape measures the distance between the two plane surfaces of the wheels.

#### **Equivalent conicity**

Software module for the calculation of equivalent conicity according to DIN EN 15302 and UIC 519 respectively.

The rail profile, inclination and distance can be selected freely and stored as a type of track. Data are calculated and displayed, and tolerances are monitored online.



ELAG Elektronik AG has been developing and supplying measuring systems world-wide since 1983, setting the highest quality standards.

From laser sensors to complete ready-to-use measuring systems, including sensors, mechanics and user software, everything is developed and manufactured in-house at ELAG Elektronik AG by a powerful, innovative team of engineers. This means that you, as our customer, can benefit from sophisticated sensors and seamlessly integrated measuring systems, where we can guarantee highly precise results and simple operation.

We consciously want to be close to you. We are convinced that short communication channels are decisive in ensuring that your requirements are implemented by us in consistent high quality.

This also includes that we accompany you competently, from the sales consultation, commissioning up to the maintenance of your devices.

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