



NEXTSENSE

CALIPRI Prime

Data Sheet

Basic set



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CALIPRI
PRIME

1 APPLICATION

CALIPRI Prime allows you to measure the main flange dimensions of a railway vehicle wheel (height, thickness, qR size) with top precision in just a few seconds. CALIPRI Prime can be used for all common wheel profile shapes of heavy rail vehicles as well as trams and streetcars (light rail). After measurement, the calculated measurements are displayed within seconds on the sensor and available for digital transfer to your PC.

In addition to this basic set, different add-ons are also available that you can purchase at any time - even at a later date. So, for instance, you can also measure wheel width, hollow tread and rollover and analyse the profile line in detail via smartphone.

Measured variables:

- Fh – Height of the flange
- Fw – Thickness of the flange
- qR – Measure of the edge of the flange



Automatic display of measurement results on the sensor

2 TECHNICAL DATA

Dimensions	64 x 63 x 164 mm 2.51 x 2.48 x 6.46 inch
Weight	590 g 20.81 oz
Measurements per battery recharge	> 300
Display	2.4-inch TFT LCD
Laser	660 nm, class 2M
Degree of protection	IP54
Accuracy	Absolute accuracy: < $\pm 80 \mu\text{m}$ Repeat accuracy: < $\pm 35 \mu\text{m}$
Scope of application	For all common profile shapes of heavy rail vehicles, trams and streetcars
Product ID	CP1BD01

3 SCOPE OF SUPPLY AND SERVICES

- Sensor including Prime Center Software¹
- Battery, AC adapter and USB cable
- Belt clip
- Instruction manual
- Shipping and storage case



Scope of delivery of CALIPRI Prime basic set

¹ System requirements for CALIPRI Prime Center Software: Windows 7 SP1, 8.1 or 10 with .net Framework 4.5 installed and Internet connection.



4 FUNCTIONS

- Flange measurement (height, thickness, qR size)
- Digital storage of all measurements
- Download of measuring data via USB (TXT files)

5 ADD-ONS

- “Reference object“ Add-On
 - Calibrated wheel profile for the regular check of the CALIPRI Prime
 - Product ID: CAO4001
- “Adjustment“ Add-On
 - Calibrated reference standard for independent adjustment of the CALIPRI Prime
 - Product ID: CAO4002
- “Wheel profile“ Add-On
 - Measurement of the entire wheel profile (hollow tread, rollover, wheel width)
 - Product ID: CAO4004
- “Tyre Thickness“ Add-On
 - Measurement of Tyre Thickness (Tyre thickness, inner and outer)
 - Product-ID: CAO4007
- “Tolerances“ Add-On
 - Definition of limit dimensions for graphic display if lower/upper limits are exceeded
 - Product ID: CAO4003
- “Prime Smart Control“ Add-on
 - Robust smartphone for the input of identification data and for detailed viewing of the measurement results (incl. profile line)
 - Product ID: CAO4005
- „Profile Export“ Add-On
 - The recorded profile curve can be exported via Prime Center or Prime Smart Control
 - Product-ID: CAO4006
- “Endurance“ Add-On
 - 2 additional batteries and an external battery charger
 - Product ID: CAO4101

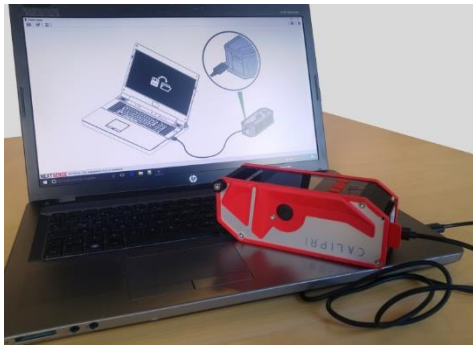
6 MEASUREMENT PROCESS



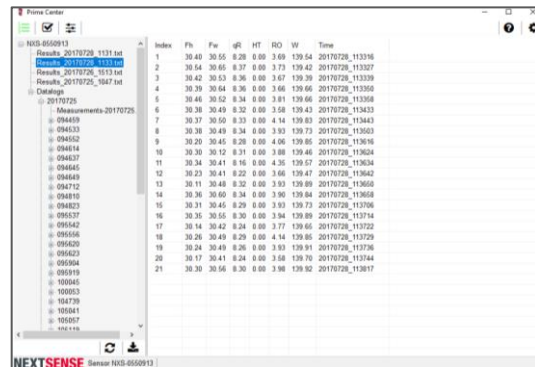
Execution of the measurement



Measurement result on the sensor



Digital transmission of results



Index	Fv	Fw	qRt	HT	ISO	W	Time
1	30.40	30.55	0.28	0.00	3.69	159.54	20170720_113316
2	30.64	30.65	0.37	0.00	3.73	159.42	20170720_113327
3	30.42	30.53	0.36	0.00	3.67	159.59	20170720_113339
4	30.39	30.64	0.36	0.00	3.66	159.66	20170720_113350
5	30.46	30.52	0.34	0.00	3.81	159.66	20170720_113359
6	30.38	30.49	0.32	0.00	3.58	159.63	20170720_113423
7	30.37	30.50	0.33	0.00	4.14	159.83	20170720_113443
8	30.38	30.49	0.34	0.00	3.93	159.72	20170720_113503
9	30.29	30.45	0.29	0.00	4.06	159.65	20170720_113616
10	30.30	30.12	0.31	0.00	3.88	159.46	20170720_113624
11	30.34	30.41	0.36	0.00	4.25	159.57	20170720_113634
12	30.23	30.41	0.22	0.00	3.66	159.67	20170720_113642
13	30.11	30.48	0.32	0.00	3.93	159.89	20170720_113660
14	30.36	30.60	0.34	0.00	3.90	159.64	20170720_113658
15	30.31	30.45	0.29	0.00	3.83	159.73	20170720_113706
16	30.35	30.55	0.30	0.00	3.94	159.89	20170720_113714
17	30.14	30.42	0.24	0.00	3.77	159.65	20170720_113722
18	30.26	30.49	0.29	0.00	4.14	159.65	20170720_113729
19	30.24	30.49	0.28	0.00	3.93	159.91	20170720_113736
20	30.17	30.41	0.24	0.00	3.58	159.70	20170720_113744
21	30.30	30.56	0.30	0.00	3.98	159.92	20170720_113817

Measurement results on PC



HEXAGON

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