

**MANY  
TASKS,  
ONE  
SOLUTION**



**PROFILE MEASUREMENT IN  
RAIL INDUSTRY**

# PROFILE MEASUREMENT & WEAR EVALUATION SYSTEMS

THE CONTACTLESS CALIPRI PROFILE MEASURING DEVICES MEET THE REQUIREMENTS OF THE RAIL INDUSTRY BY OFFERING A SIMPLE, REPRODUCIBLE WEAR INSPECTION METHOD FOR THE ENTIRE WHEEL/RAIL SYSTEM.



CONTENTS

03  
PROFILE MEASUREMENT  
& WEAR EVALUATION  
SYSTEMS

08  
CALIPRI C41 | C42

04  
RELIABLE MEASUREMENTS,  
FREE FROM USER  
INFLUENCE

14  
CALIPRI  
PRIME

06  
OPTIMUM TRAINING,  
NO MATTER WHERE

16  
REFERENCES  
& CONTACT DETAILS

Thanks to the innovative measuring method, the condition of wheels, brakes, rails and switches can be checked without physical contact. Our patented tilt correction eliminates any possibility of human error.

This means: CALIPRI always records the reality – completely unadulterated and regardless of the user or measuring task. Advantages for you: highest quality measurement data and significant time savings.

PRECISE AND RELIABLE

## ACCURATE MEASUREMENTS, FREE FROM USER INFLUENCE

THE PATENTED CALIPRI PRINCIPLE AUTOMATICALLY COMPENSATES FOR ANY ROLLING OR TILTING OF THE SENSOR. MEASURING ERRORS THAT TYPICALLY ARISE WHEN USING CONVENTIONAL MEASUREMENT DEVICES CAUSED BY INCORRECT POSITIONING OR MISREADING VALUES ARE A THING OF THE PAST WITH CALIPRI.

The measurement process is based on laser light section technology. The user guides the sensor over the measurement object by hand. It is not necessary to precisely maintain the distance and angle of the sensor. During the process, the profile is captured and evaluated from different perspectives. Once measured, the data is immediately ready for analysis and transfer.



Secure data transmission via digital storage.

The measurement data can be printed as PDF reports or transferred to a database. This makes it possible to draw conclusions about wear behaviour and to identify possible sources of error at an early stage. Digital data transfer is tamper-proof and replaces handwritten documentation.

EXPERTISE AT THE TOUCH OF A BUTTON

## OPTIMUM TRAINING, NO MATTER WHERE

IN ADDITION TO OUR TRAINING VIDEOS, WE ALSO PROVIDE PRIVATE ON-SITE TRAINING FOR DIFFERENT KNOWLEDGE LEVELS TO ENSURE THAT YOUR EMPLOYEES ALWAYS HAVE THE MOST UP-TO-DATE INFORMATION. SERVICE AGREEMENTS AND EXTENDED WARRANTY CONDITIONS ALSO ENSURE 100% AVAILABILITY OF THE MEASURING DEVICES.



Learning has never been so easy!

You can find all our training videos online. Get an overview of our measuring devices and how to operate them.

[www.youtube.com/user/worldwideunique](http://www.youtube.com/user/worldwideunique)



Should you ever require personal assistance, our technical support experts are available to answer any questions you may have regarding the function, handling and use of our measuring devices. Also, with branch offices and distribution partners worldwide, we are represented on every continent – Nextsense is there for you anywhere, at any time – wherever you are. Whether by telephone, email or remote connection, our goal is always the same: finding the optimum solution for your company!

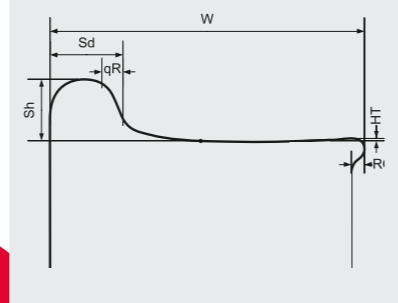
# MULTIFUNCTIONAL DEVICES: CALIPRI C41 | C42

OUR MULTIPURPOSE PROFILE-MEASURING DEVICES ARE EASY TO UPGRADE, EVEN RETROACTIVELY. CHOOSE FROM A VARIETY OF MEASURING MODULES TO CREATE THE PERFECT COMBINATION FOR YOUR NEEDS.

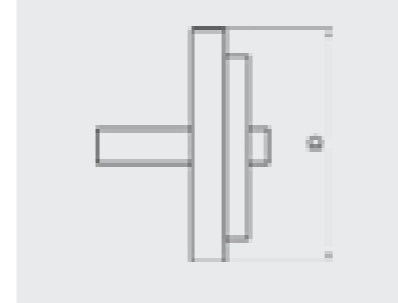
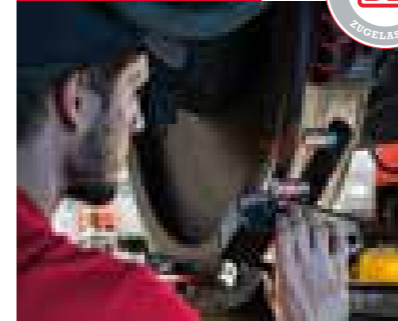
Combine your ideal system:  
one sensor for various  
measuring tasks.



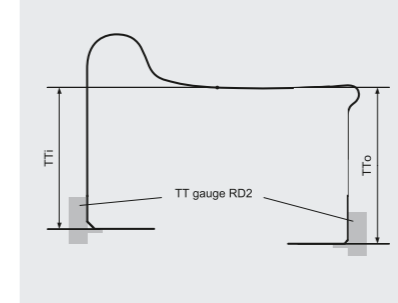
**WHEEL PROFILE**



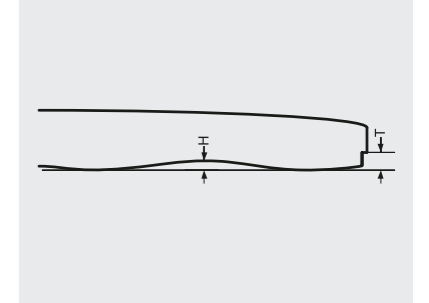
**WHEEL DIAMETER**



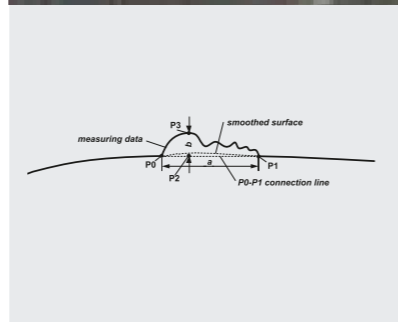
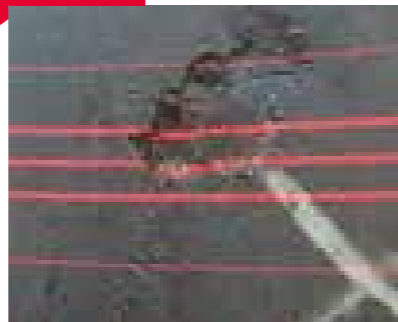
**TYRE THICKNESS**



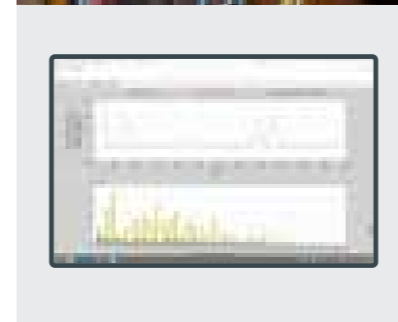
**BRAKE DISC**



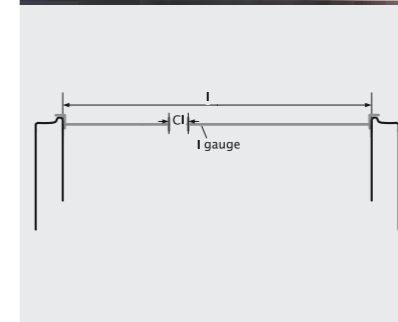
**DEFECTS**



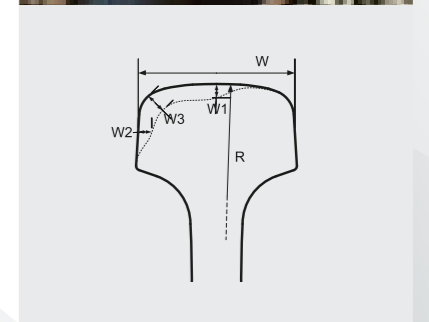
**RADIAL /  
AXIAL RUNOUT**



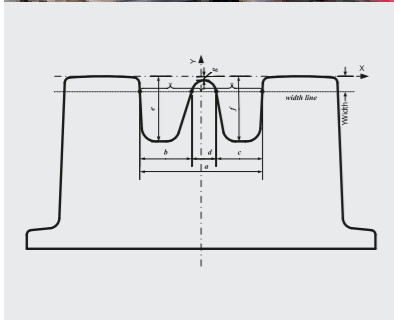
**BACK-TO-BACK**



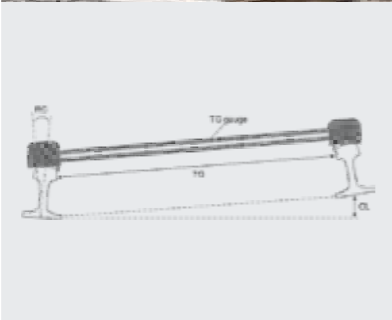
**RAIL**



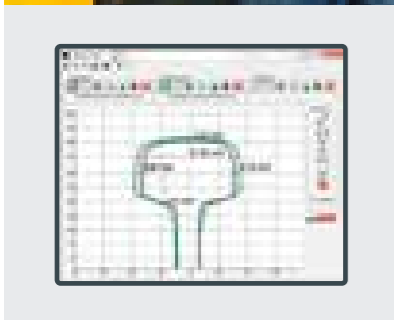
## SWITCH



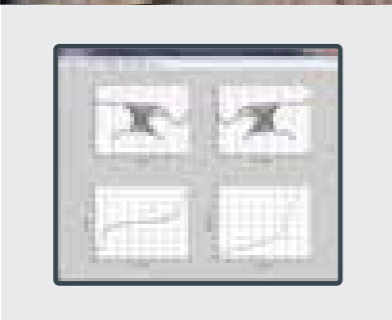
## TRACK GEOMETRY



## CALIPRI ANALYZER



## EQUIVALENT CONICITY WHEEL-RAIL-INTERACTION



## TECHNICAL DATA

# FACTS AT A GLANCE

	C41	C42
<b>System</b>		
Purpose	Light rail	Heavy rail
Measurement data display	Tablet-PC	Sensor + Tablet-PC
<b>Sensor</b>		
Size	72 x 110 x 105 mm   3 x 4.5 x 4 in	64 x 63 x 164 mm   2.5 x 2.5 x 6.5 in
Weight	350 g   10.5 oz	590 g   20.8 oz
Battery life	--	> 4 h
Measuring field	130 x 115 mm   5 x 4.5 in	150 x 130 mm   6 x 5 in
Display	--	2.4 in TFT LCD
Laser	660 nm, class 2M	660 nm, class 2M
Protection class	IP 54	IP 54
<b>Tablet-PC</b>		
Size	270 x 188 x 38 mm   10.5 x 7.5 x 1.5 in	270 x 188 x 38 mm   10.5 x 7.5 x 1.5 in
Weight	1300 g   46 oz	1300 g   46 oz
Battery life	> 5 h	> 5 h
Display	10.1 in WUXGA	10.1 in WUXGA
Operating system	Microsoft Windows® 10	Microsoft Windows® 10
Protection class	IP 65	IP 65
<b>Data transfer</b>		
Sensor to tablet PC	Cable	WLAN
Tablet PC to networks	WLAN, Bluetooth, Ethernet	WLAN, Bluetooth, Ethernet
<b>Export interfaces</b>		
Measurement results	xml, csv, customer-specific interface (on request)	xml, csv, customer-specific interface (on request)
Profile data	csv, dxf	csv, dxf

## SCOPE OF DELIVERY

### ALL IN ONE: THE CALIPRI PACKAGE



TO PROVIDE THE OPTIMAL SOLUTION FOR EVERY SITUATION, WE OFFER A VERY FLEXIBLE SCOPE OF SUPPLY. YOU CAN SELECT THE SENSOR TYP, REFERENCE STANDARD AND MODULES ACCORDING TO YOUR INDIVIDUAL REQUIREMENTS.



#### Sensor

In addition to the wireless C42 sensor, the C41 sensor is available for confined spaces.



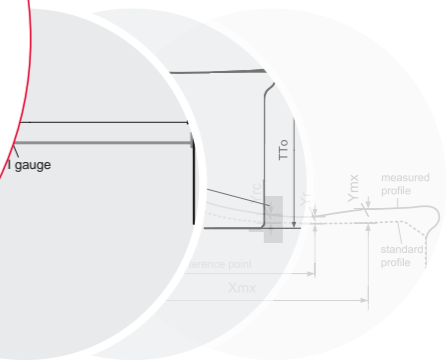
#### Reference standard

Our reference standard allows you to recalibrate the measuring device on site if required. This means that you benefit from a measuring system with high availability.



#### Modules

You don't buy anything that you don't really need. Each system is individually configured by combining different measurement modules.



REDUCED TO THE ESSENTIAL

# CALIPRI PRIME

ENJOY THE HIGHEST QUALITY OF MEASUREMENT DATA WITH LOW ACQUISITION COSTS. CALIPRI PRIME IS THE DIGITAL ALTERNATIVE TO ERROR-PRONE MECHANICAL GAGES. THE „LITTLE BROTHER“ MEASURES THE PROFILES OF WHEELS IN A MATTER OF SECONDS.

## SCOPE OF DELIVERY

- Sensor
- Battery (rechargeable), power supply and USB cable
- Belt clip
- Instruction manual
- Case

## FUNCTIONS

- Flange measurement (height, thickness, qR dimension)
- Digital storage of all measurements
- Download measurement data via USB (TXT files)
- Optional upgrade to complete wheel profile measurement with profile view



## Technical data

Size	64 x 63 x 164 mm   2.5 x 2.5 x 6.5 in
Weight	590 g   20.8 oz
Measurements per battery charge	> 300
Display	2.2 in TFT LCD
Laser	660 nm, class 2M
Protection class	IP54



## ADD-ONS

01

### Reference object

Calibrated wheel profile for periodic accuracy test

02

### Adjustment

Calibrated reference standard for on-site recalibration

03

### Tolerances

Definition of limits for graphical variance comparison

04

### Wheel profile

Measurement of the entire wheel profile (hollow tread, rollover, wheel width)

05

### Endurance

Two additional batteries and one external charger

06

### Prime Smart Control

Robust smartphone with app to enter identification data, display the profile curve and share the results





# REFERENCES



ARE YOU INTERESTED IN OUR  
**CALIPRI PRODUCTS** AND LOOKING  
 FOR MORE INFORMATION?

GET IN TOUCH WITH US!

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