

CALIPRI

C4X

RESULTS
TAKING
CENTER
STAGE



MEASUREMENT MODULE “WHEEL DIAMETER“

Data sheet

NEXTSENSE

APPLICATION

The “Wheel diameter“ module allows for the precise measurement of the rail vehicle wheel diameter. The flange diameter is measured in order to calculate the rolling circle diameter. Additionally, the following values can also be calculated automatically: diameter difference axle, diameter difference bogie and diameter difference coach.

The wheel diameter gauge (D-Gauge) is used to perform the measurement and is included in this module offering. The patented gauge manufactured in CFRP lightweight construction technology is robust, has no moveable components and can be easily mounted (switchable magnet) on the wheel. A measurement can be performed quickly and easily on the installed wheel, even in difficult conditions.

All of the measured variables are displayed on the sensor and tablet PC within a few seconds. These results can then be compared automatically with your reference values.

MEASURED VARIABLES:

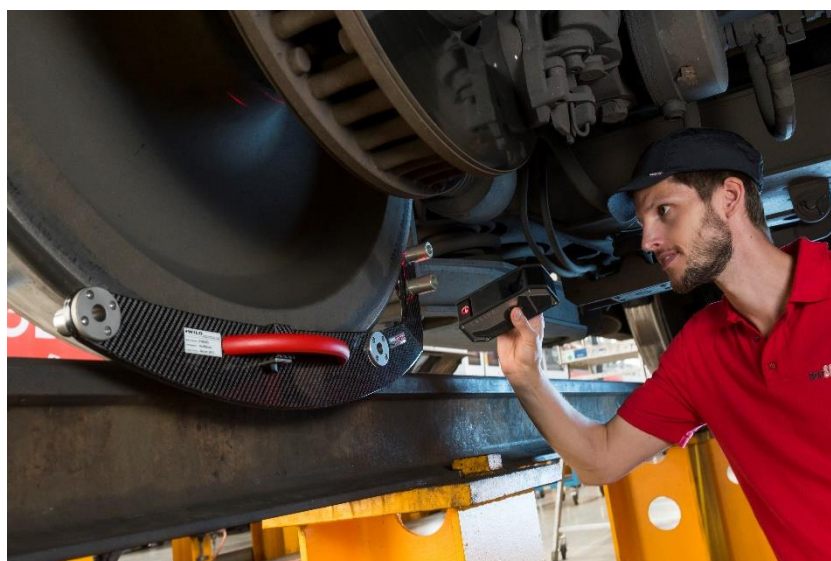
DS – Flange diameter

DIk – Rolling circle diameter

DDA – Diameter difference axle (n)

DDD – Diameter difference bogie (e)

DDW – Diameter difference coach



WHEEL DIAMETER MEASUREMENT WITH SENSOR AND G-GAUGE

TECHNICAL DATA

Depending on your wheel diameter dimensions, you can choose between three different D-Gauge versions.

	D-750	D-1050	D-1350
Measurement range*			
Calipri C40, C42:	470 – 750 mm (1'6" - 2'5")	670 – 1050 mm (2'2" - 3'5")	970 – 1350 mm (3'2" - 4'5")
Calipri C41:	550 – 750 mm (1'9" - 2'5")	800 – 1050 mm (2'7" - 3'5")	1100 – 1350 mm (3'7" - 4'5")
Net weight	1.0 kg (2.2 lbs)	1.3 kg (2.9 lbs)	1.4 kg (3.1 lbs)
Shipping weight	4.2 kg (9.3 lbs)	6.0 kg (13.2 lbs)	8.0 kg (17.6 lbs)
Package size (Hard shell case)	60 x 50 x 20 cm (1'11" x 1'7" x 7.8")	100 x 20 x 45 cm (3'3" x 7.8" x 1'5")	100 x 15 x 40 cm (4'3" x 5.9" x 1'3")
Product ID	CMM1005/750	CMM1005/1050	CMM1005/1350
Accuracy	Absolute accuracy: < ± 200 µm Repeatability: < ± 100 µm		
System requirement	Measurement module "WheelProfil"		
Compatibility	CALIPRI C40, CALIPRI C41, CALIPRI C42		
Standards & certificates	Calipri is approved and uses i.a. in Germany (DB), Austria (ÖBB), Switzerland (SBB), France (SNCF), China (Chengdu Railway Bureau) and the Czech Republic (SŽDC). This measuring module has been successfully tested according to JCGM100: 2008, DIN V ENV 13005: 1999-06, DIN EN 13715: 2001-01, DIN EN 15313: 2016-09 and DIN 27201-9: 2017-06.		

* Refers to the flange diameter.

SCOPE OF DELIVERY:

- ✓ Software license measurement module "Wheel Diameter"
 - 1 measurement method (FlangeDiameter)
 - In case of supplementary order:
Activation via remote access
- ✓ Wheel diameter gauge (D-Gauge) incl. calibration certificate
 - Mechanical supporting gauge for the wheel diameter measurement
 - USB stick with the gauge calibration specifications included
 - Delivered in hard shell case for the purpose of shipment and storage



DIAMETER GAUGES
D-750 / D-1050 / D-1350

ADD-ON „D-Gauge modification“

- Additional magnet (permanent magnet) for a better adhesion
- Product ID: CSM9001



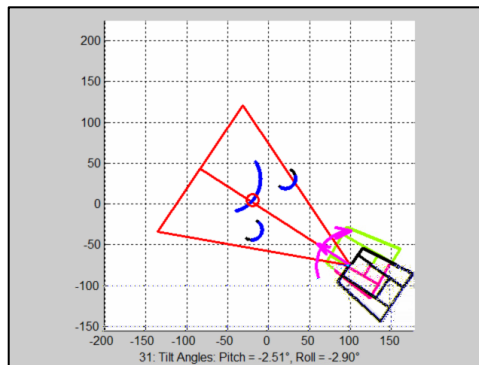
MEASUREMENT PROCESS



D-GAUGE FIXTURE



MEASUREMENT

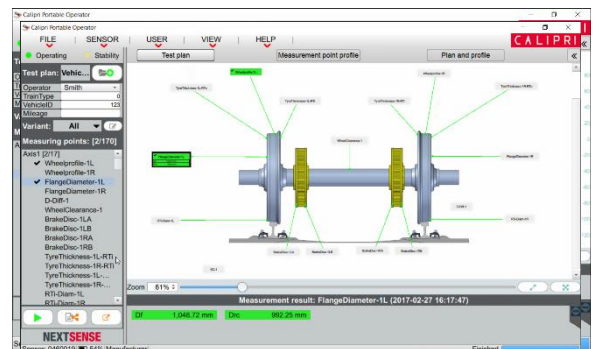


SENSOR GUIDANCE (TUTOR)



MEASUREMENT RESULT ON SENSOR

AND



MEASUREMENT RESULT ON TABLET PC