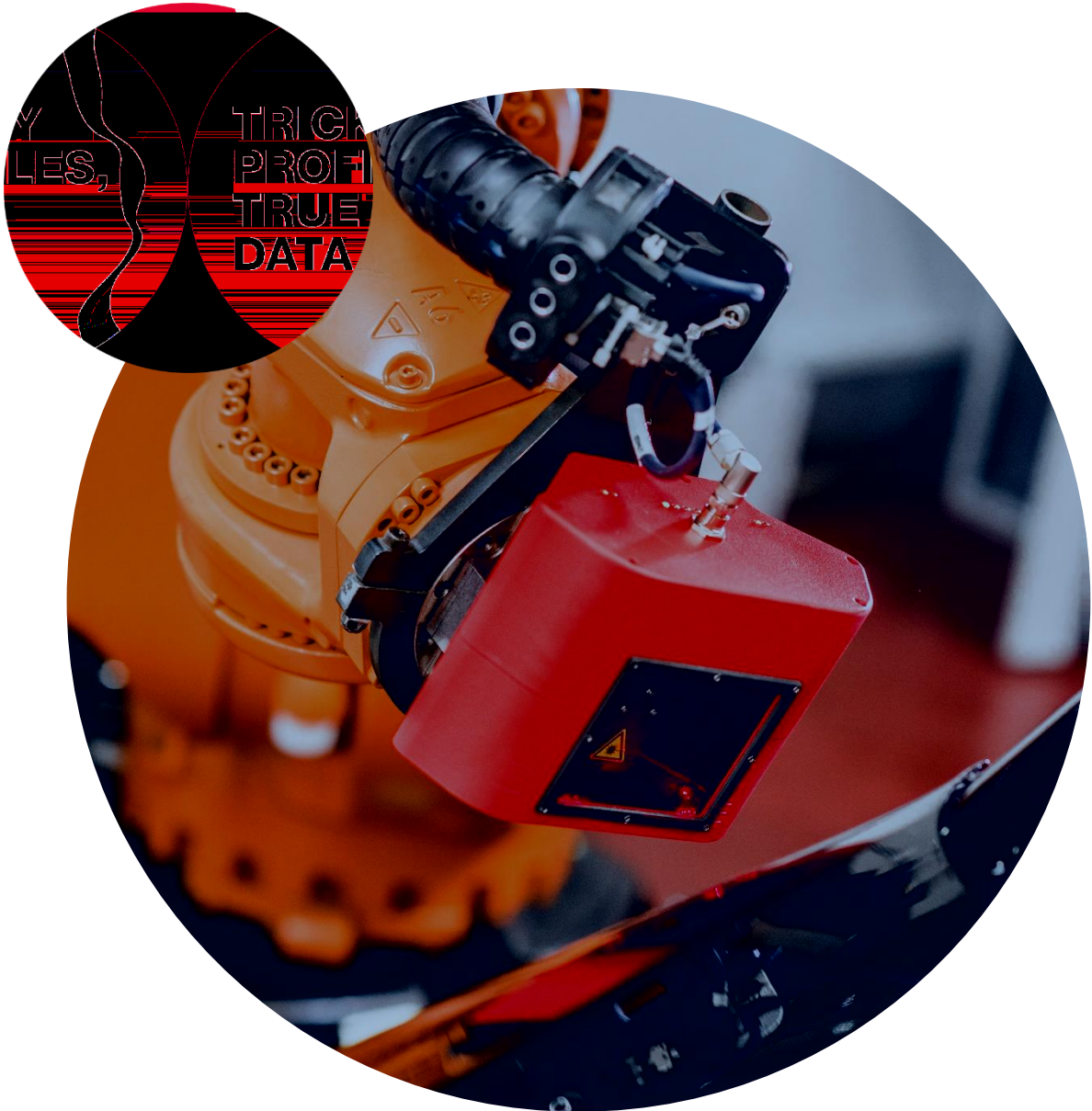


CALIPRI

C12



CALIPRI C12 ROBOTIC

Data sheet

NEXTSENSE

APPLICATION

CALIPRI C12 is a gap and flush measurement system that can be fully integrated into the line and is used for full checks of automobile bodies. The system can be used with standard industrial robots as well as HRC lightweight robots.

By using CALIPRI C12 in your production line, you are relying on highly-precise measurement results without any mathematical approximation methods as well as globally unique automatic rotation and tilt correction. The patented CALIPRI measurement method is used here – a further development of the laser light section technology.

The results from the automated measuring system can be compared with the data from the mobile gap measurement devices (CALIPRI C10, CALIPRI C11) due to cross-platform evaluation methods in order to detect deviations in the process and to derive appropriate measures from this.



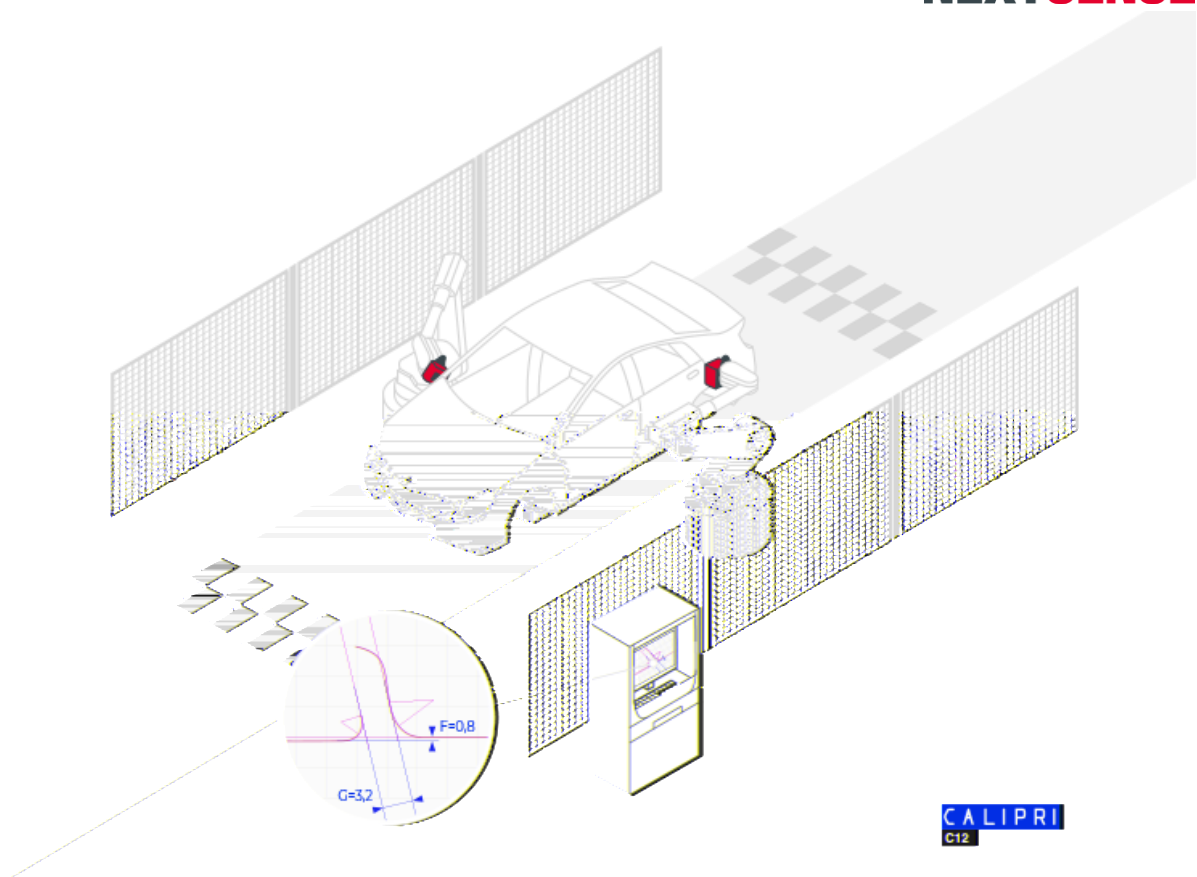
FIGURE 1 – CALIPRI C12 AND CALIPRI C11 IN USE

TECHNICAL DATA

Accuracy	Absolute:	< ± 20 µm
	Repeatability:	< ± 10 µm
Speed	Time/measuring point:	< 2 s
	Incl. robot movement:	3-4 s
Sensor	Laser class:	2M
	Degree of protection:	IP 54
Control terminal	Computer unit:	Microsoft Windows 7 Pro, 64 Bit
	Monitor size:	19 inches
Data recording	Technology:	Laser light section
	Tilt and rotation correction:	Automatic (pat. Calipri principle)
Data transmission	Protocols:	Profinet, Ethernet IP/IO
Export formats	Reports:	PDF, direct connection to the printer
	Data records:	XML, CSV/DXF
Application	For the fully automatic in-line measurement of standard and special gaps on the exterior of the vehicle	
Product ID	C12BD01 (2 Robot System)	
	C12BD02 (4 Robot System)	

SCOPE OF DELIVERY AND SERVICES:

2 ROBOT SYSTEM	4 ROBOT SYSTEM
2 Sensors	4 Sensors
PC with Software CIS and Monitor	2 PCs with Software CIS and Monitor
Control Cabinet	2 Control Cabinets
2 Adjustment targets	4 Adjustment targets
Documentation	Documentation
2 Software Licenses "Gap and Flush Module"	4 Software Licenses "Gap and Flush Module"
2 Software Licenses "Special Gaps"	4 Software Licenses "Special Gaps"
1 Software License "Calipri Manager"	1 Software License "Calipri Manager"
Project management (situation analysis, coordination, documentation)	Project management (situation analysis, coordination, documentation)
On-site installation and commissioning	On-site installation and commissioning
Support for robot teaching	Support for robot teaching
Basic instruction for operators, maintenance, IT	Basic instruction for operators, maintenance, IT
1 year support (telephone, Email, remote)	1 year support (telephone, Email, remote)



CALIPRI C12 – SYSTEM COMPONENTS

ADD-ONS:

- + Visualization monitor
 - Additional monitor for separate display of measurement point view & measurement plan view
 - Product ID: CAO3049
- + Measurement plan creation
 - Including parameter settings, tolerance value input and visualization
 - Product ID: CSM2101 (20 measuring points) / Product ID: CSM2102 (another 10 measuring points)
- + •Proof of Measurement Reliability
 - -Product-ID: CSM2110
- + Availability optimization
 - Measuring point availability of up to 99.5%
 - Product ID: CSM2112
- + Recalibration service
 - Recalibration of the reference standard incl. certificate
 - Product ID: CSM3008/C1X
- + Gap detection
 - Automatic detection of the vehicle's position (reduced expenditure for sensors)
 - Product ID: CAO5001
- + On-site training
 - Training courses for users and administrators
 - Product ID: CSM2011/AUT1 (basic training) / Product ID: CSM2011/AUT2 (expert training)
- + Service package
 - 12 months telephone and hotline support with 1on-site maintenance and 1 recalibration of target
 - Product ID: CSM1034