



DCA System

Sensor System

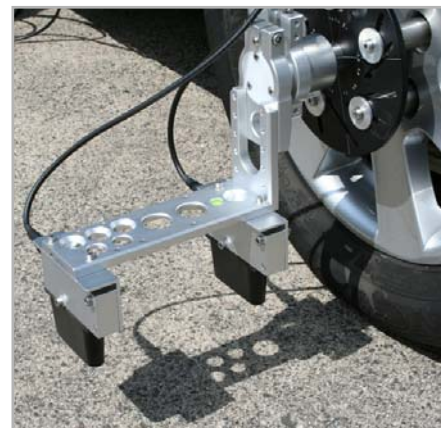
for

Dynamic Camber Angle Measurement

- Measures camber angle relative to ground
- Mounts easily onto the vehicle wheel with collets that clamp directly to the wheel nuts – collets are available for most standard wheel types
- Universal application
- Online display via CeCalWin Pro Software
- Parameterization via CeCalWin Pro Software
- DCA Processor supports one or two sensor systems
- Data output via CAN, USB, and analog output
- Optional mounting of a CORREVIT® SFII-P Sensor for non-contact measurement of slip angle
- For passenger cars and SUVs
- Truck version available on request.
- Uses two CORRSYS-DATRON HF-xxxC Laser Height Sensors, proven accurate in extreme environmental conditions, including intense sunlight, and high temperature and humidity, as found in India and Arizona.

Dynamic Camber Angle Measurement

Using two CORRSYS-DATRON Ride Height Sensors of the HF Series mounted on the vehicle wheel, accurate dynamic measurement of wheel camber relative to ground is at last a reality. This ingenious new system acquires dynamic wheel camber angle by comparing the relative change in height between the two sensors, as measured from the optical plane of each sensor to the surface of the road or track.



Article no.:

DCA-1 System for camber angle measurement at one wheel	15905
DCA-2 System for camber angle measurement at two wheels	15906
DCA-System for camber angle measurement without processor	15907

Typical Technical Data

Technical Specifications

Sensor pos. relative to wheel center:	62 ... 195 mm
Working distance and range:	HF-500C: 125 ... 625 mm HF-750C: 150 ... 900 mm
Max. wheel diameter:	≤ 800 mm
Max. meas. range camber angle*:	± 25°
Resolution, camber angle*:	0.04°
Accuracy, camber angle*:	<0.5°
Moving mass at the wheel:	approx. 3.4 kg
Light source:	Laser, 660 nm (red), < 5 mW
Laser class:	3R (IEC 60825-1)
Approx. spot size:	1 mm x 2 mm
Collets (optional):	17, 19, and 21 mm 14, 20, 22, 23, 24, 26, 27, and 30 mm; others on request

* (values based on a basis length of 162 mm)

System Specifications

Power supply:	10 ... 36 V DC
Supply current:	< 0.5 A
Temperature range:	
Operating:	-10 ... 50°C
Storage:	-20 ... 60°C
System protection of the sensors:	IP 65
System protection of the processor:	IP 55

Outputs

Output signals:	Camber Angle Height 1, Height 2 Wheel Speed**, Wheel Position** Calculated Distance**
Update rate:	4 ms (250 Hz)
CAN Bus:	CAN V2.0B - switchable terminating resistor (Intel or Motorola Format)
Analog Outputs:	±10V each (16 bit resolution)
PC interface:	USB 1.1 and RS232
Adjustable filter time:	unfiltered or 8 ... 512 ms

All inputs and outputs are protected against overvoltage and short circuit.

CAUTION

Laser radiation is emitted from this aperture Do not stare into beam!
Laser Class 3R according to DIN EN 0825-1:2001-11

Laser Power ≤ 5 mW
Wave Length 660 nm

©2008 CORRSYS-DATRON Sensorsysteme GmbH
DCA-System_d-628-e-rev001 10/08

** optional, with Wheel Pulse
Transducer Art.no. 11355



DCA System with SFII Sensor

CORRSYS-DATRON
www.corrsys-datron.com

International Headquarters
CORRSYS-DATRON Sensorsysteme GmbH
P.O. Box 1349 • 35523 Wetzlar / Germany
Phone: +49-6441-9282-0
Fax: +49-6441-9282-17
e-mail: sales@corrsys-datron.com

North American Headquarters
CORRSYS-DATRON Sensorsystems Inc.
40000 Grand River, Suite 503 • Novi, MI 48375 • USA
Phone: 248-615-2035 • Toll-free: 800-832-0732
Fax: 248-615-2184
e-mail: USA-sales@corrsys-datron.com

Chinese Headquarters
CORRSYS-DATRON Sensorsysteme GmbH - China
Room 610, JinTianDi International Mansion,
No. 998 RenMin Road, Shanghai (200021), P.R.China
Phone: ++86-21-63114144 • Fax: ++86-21-63114154
e-mail: Xiaoying.Li@corrsys-datron.com.cn