



# RV-4

## Wheel Vector Sensor

for

### **Simultaneous Measurement of all Wheel Positions and Orientations in 5 Axes**

#### **Measurement Applications**

- Weight shift when braking
- Wheel travel when braking
- Changes in camber angle e.g., when cornering
- Changes in wheel position e.g., when braking or accelerating
- Rear-wheel tracking
- Dynamic self-steering behavior
- Tire strain
- Recording of test and race tracks for simulators

The measurement results of the above tests provide the basis for tasks such as:

- Wheel well clearance measurement and design
- Chassis development and refinement
- Spring and shock absorber development
- Toe-in and camber angle adjustment
- Tire development
- Testing of driver assistance systems

Options:

- Sensor mounting system for slip angle measurement with CORREVIT® SF Sensors
- Incremental wheel pulse transducer mounting system for acquisition of high-resolution rotational speed measurement using the CORRSYS-DATRON WPT Wheel Pulse Transducer



<b>Art. No.:</b>	
<b>RV-4 Sensor PKW</b>	<b>14619</b>
<b>RV-4 Sensor PKW without Processor</b>	<b>14816</b>

## Typical Technical Data

	X [mm]	Y [mm]	Z [mm]	camber [°]	steer [°]
Measuring range	±150	±150	±200 *	±10	±60
Accuracy	±1	±0.7	±1	±0.2	±0.1
Reproducibility	±0.5	±0.5	±0.5	±0.1	±0.05

**\* CAUTION!**

If the entire measuring range of the z-axis (±200 mm) is utilized, the maximum measuring ranges of the y- and x-axis will be restricted.

**Weight:**

1x sensor + 1x wheel mount  
plus 1x 4-point suction holder: approx. 12 kg  
2x sensor + 2x wheel mount  
plus 1x 8-point suction holder: approx. 20 kg

Moving mass at the sensor: 2.5 kg

Temperature range: -20°C ... +60°C

Protection Standard sensor: IP 67

Protection Standard processor: P 55

Power supply: 9 ... 36V - reverse polarity protection

			default settings
Analog outputs (per RV-4):	X	-10 ... 10V	60 mV/mm
	Y	-10 ... 10V	60 mV/mm
	Z	-10 ... 10V	60 mV/mm
	camber	-10 ... 10V	1000 mV/°
	steering angle	-10 ... 10V	200 mV/°

DA converter resolution: 16 bit < 0.005 mm  
< 0.001°

All inputs and outputs are protected against overvoltage and short circuit

Adjustable filter time: unfiltered or 16 ... 1024 ms

CAN output: CAN V2.0B  
(Motorola or Intel Format)

PC interface: USB 1.1 or RS232



**RV-4 Sensor mounted**



**RV-4 Processor with CAN**

Includes CeCalWin Pro Software for:

- Online display of all input and output signals
- Zero-point balance
- Parameterization