



# CORREVIT<sup>®</sup> S-350 Racing

Non-Contact

Optical Sensor

for

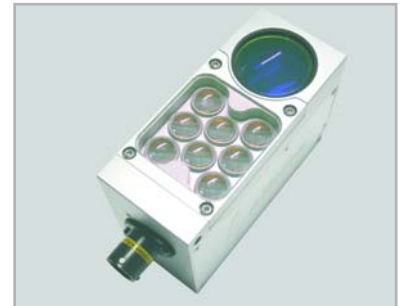
**slip-free measurement of longitudinal and transversal dynamics**

- Working range 350 ±50 mm
- Applicable from 0.5 kph ... 400 kph
- Adjustable filter time (unfiltered, 8 ... 512 ms)  
FIR Filter with constant filter time (adjustable)

Considerably improved performance is enabled by the application of the latest technologies:

- ⇒ LED-IR illumination
  - ⇒ Smallest dimensions
  - ⇒ Improved distance linearity,
  - ⇒ Easier mounting
  - ⇒ Improved signal processing by ideal combination of the analog and digital signal conditioning (DSP-FPGA technology).
  - ⇒ Reduced noise of the output signal
  - ⇒ Improved measurement features on various surfaces
  - ⇒ Quick filter start-up, also during movement
- Extremely high measuring accuracy\* better than ±0.1% as a result of precise optics and digital signal processing.
  - Programmable standard analog and digital signal outputs
  - All measured values available
  - Direct connection to PC and virtually all data acquisition systems

Signal outputs:     Analog (optional)  
                          Digital (optional)  
                          CAN Bus  
                          RS232



\* with calibration on the test surface

**Art. No.:**  
**S-350 Racing long 15989**  
**S-350 Racing trans. 15990**

## Typical Technical Data

### Performance specifications

Speed range:	0.5 ... 400 kph
Distance resolution:	2.47 mm
Distance measurement deviation:	<±0.2% *
Angle range:	±40°
Angle resolution:	<±0.1°
Working distance and range:	350 ±50 mm

### Interfaces:

CAN 2.0B - switchable termination resistor (Motorola or Intel format), RS232

### Signal outputs (optional)

Digital output 1 - IVI or $V_L^{**}$ :	1 ... 1000 pulses/m
Digital output 2 - $V_q$ or angle **: :	$f_{center} = 5 \text{ kHz}$
Analog output 1 - IVI or $V_L^{**}$ :	0 ... 10 V (16 bit resolution)
Analog output 2 - $V_q$ or angle: :	-10 ... +10 V (16 bit resolution)

### Signal inputs (optional)

Analog input 1:	0 ... 10 V (16 bit resolution)
Analog input 2: :	-10 ... +10 V (16 bit resolution)

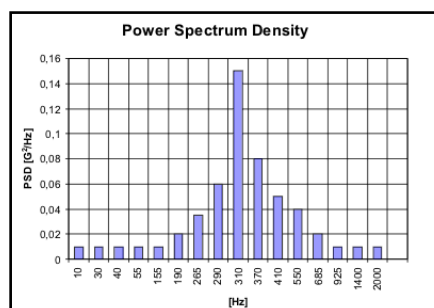
### System specifications

Power supply:	10 ... 26 V; 52 W (12 V DC)
Temperature range:	Operation: - 25 ... 50° C
	Storage: - 40 ... 85° C
	Rel. humidity: 5 ... 80% non condensing
Protection standard sensor head:	IP 67 (with cable connected)
Protection standard electronics:	IP 50 (with cable connected)
Dimensions of the sensor head (l x w x h):	125 x 70 x 45 mm (with plug)
Weight of the sensor head:	500 g
Dimensions of the electronics (l x w x h):	145 x 107 x 36.5 mm (with plug)
Weight of the electronics:	555 g
Shock:	50 g half-sine, 6 ms
Vibration:	see chart below
Illumination:	LED-IR, 850 nm laser class 1
Expected lifetime:	≥ 10,000 Kilometer



**CAUTION:**  
INVISIBLE RADIATION FROM LIGHT  
EMITTING DIODES!

DO NOT OBSERVE WITH OPTICAL  
INSTRUMENTS  
LASER CLASS 1M  
IN COMPLIANCE WITH  
DIN EN 60825-1:2001



\* with calibration on test surface

\*\* switching-over between the respective measured variables via CeCalWin Pro possible

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In a continuous effort to improve our products, CORRSYS-DATRON reserves the right to change specifications without prior notice.

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