



CORREVIT® L-350 Aqua

non-contact

1-axis optical sensor

for

slip-free measurement of longitudinal dynamics

- Designed for measurement of distance, speed (up to 250 kph) and acceleration (brake tests), on various dry and wet track surfaces
- Adjustable filter time (unfiltered, 8 ... 512 ms)
FIR Filter with constant filter time (adjustable)
Speed linearity in the desired distance: $< \pm 0.2 \%$
Working range linearity: $< \pm 0.2 \%$
Measurement accuracy of the distance measurement: $\pm 0.1 \%$
- Considerably improved performance is enabled by the application of the latest technologies:
 - ⇒ Latest halogen lamp with aluminum reflector
 - ⇒ 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 in combination with environmental influences by snow, ice or water
 - ⇒ Improved standstill
 - ⇒ Quick filter start-up
- Direct connection to PC and virtually all data acquisition systems
Signal outputs: Analog 0 ... +10 Volt
 Digital 1 ... 1000 pulses/m
 CAN Bus V 2.0B
 USB or RS232
- Negligible service and maintenance requirements as a result of durable technology
- Tested and used under extreme environmental conditions, including water spray



Typical Technical Data

Performance specifications

Speed range:	0.3 ... 250 kph (0.19 ... 155.3 mph)
Distance resolution:	1.5 mm
Distance measurement deviation:	< ±0.1 % *
Speed linearity:	< ±0.2 % **
Working range linearity:	< ±0.2 %
Working distance and range:	350 ±130 mm

Outputs:

CAN Bus:	CAN 2.0B Motorola or Intel data format
Analog output:	v (0 ... +10 Volt)
Digital output:	s (1 ... 1000 pulses/m)
Interface PC:	USB 2.0 full speed or RS232

Inputs:

Analog inputs:	2 x analog input, ± 10 V, 16 bit Lemo 1B 6 pin
Counter input:	1 x counter IN / 1 x light barrier IN Sub-D 9 pin

System specifications:

Power supply***:	10 ... 28 Volt
Power consumption at 12 V:	32 Watt
Temperature range:	
Operation:	-25 ... +50°C environmental temp.
Storage:	-40 ... +85°C
Rel. humidity:	5 ... 80%, non condensing
Protection standard sensor head:	IP 67
Protection standard electronic box:	IP 50
Illumination:	halogen
Dimensions of the sensor head:	105 x 70 x 45 mm (l x w x h)
Dimensions of the electronics:	180 x 125 x 95 mm (l x w x h)
Weight of the sensor head:	500 g
Weight of the electronics:	1100 g
Shock:	50 g half-sine, 6 ms
Vibration:	10 g, 10 Hz ... 150 Hz

Serial interface for connection to the PC, automatic sensor identification and function controll.

* with calibration on test surface at a distance of 200 m minimum

** with calibration on test surface, v > 10 kph

*** from serial number 639-083100

