

The laser ride height sensor is designed to measure ride height with micron-level resolution and sub-millisecond response using contactless laser triangulation. These sensors are essential for aerodynamic research, development, and tuning, but are also used for suspension tuning, chassis stiffness analysis, tyre deflection, and other contactless measurements.

The sensor is capable of measuring ride heights from 30 to 310mm with micron-level resolution, outputting data at 830Hz using CAN 2.0A protocol, enclosed in a compact IP66 rated aluminum enclosure with a Deutsch autosport connector.



SENSOR SPECIFICATIONS

Measurement Range	30 to 300mm
Resolution (matte object)	< 0.02mm at 30mm < 0.4mm at 300mm
Accuracy (matte object, 25°C)	±0.2mm at 30mm ±2.5mm at 300mm
Thermal Drift	±0.05mm/°C at 30mm ±0.35mm/°C at 300mm
Laser Spot Size	2.0mm x 0.8mm
Laser Class	1, IEC 60825-1:2007
Laser Wavelength	655nm
Temperature Range	-10 to 50°C
Optimal Warm-up Time	10 minutes
Update Rate	800Hz, < 1ms response time
Valid Object Reflectance	90 to 6%
Ambient Light Immunity	> 5,000 lux

ELECTRICAL SPECIFICATIONS

Supply Voltage	8 to 32V
Power Consumption	< 900mW

MECHANICAL SPECIFICATIONS

Weight	180 g
L x W x H (max, 60° FOV)	82.3 x 44.3 x 27 mm
Protection Rating	IP66
Vibration	MIL-STD-202G, 213B, C-I
Shock	MIL-STD-202G, 201A