ka sensors
SENSE | ANALYZE | CONTROL

RHL4 Series
Lightweight High Speed
Laser Ride Height Sensor

The RHL Series of laser ride height sensors are designed to withstand the harsh environments of industrial and motorsport applications.

The RHL4 miniature sensor incorporates a small diameter visible laser that is reflected off the track surface to a precision CCD detector which determines the height from the ground.

Supplied with standard measurement ranges of 8 inches (2.4 to 10.4 inches) or 20 inches (4 to 24 inches) the RHL4 is ideal for use on all types of vehicle. With a measurement rate of up to 4KHz and linearity of 0.1% ensures a fast and accurate recording of real-time car data. The supply voltage is a common 11-30Vdc which is readily available on most data logging systems and the analog voltage output is 1-5V. On board compensation ensures that different track colors and surfaces are correctly measured without error.

Construction is ruggedized against high vibration and temperature. An anodized aluminum case has a choice of electrical connection. Either Deutsch connector or a low profile cable exit can be selected. The tough plastic lens can be replaced easily in the event of damage.

Technical Specifications

Ranges	8 inches (2.4 to 10.4 inches) 20 inches (4 to 24 inches)
Resolution	0.0008 inches
Linearity	±0.1% of Full Scale
Measurement Range	250, 500, 1000, 2000, 4000Hz (Factory Set)
Thermal Effects	0.015% FS/°F
Output	1 to 5V
Ambient Light	<10,000Lx
Power Supply	11-30Vdc (50mA)
Operating Temperature Range	32°F to 230°F (0°C to +110°C)
Storage Temperature Range	-5°F to 255°F (-20°C to +125°C)
Construction	Black Anodized Aluminum casing, plastic replaceable lens
Electrical Connection	Cable: 40", 26AWG, 55spec wire + DR25 Sleeve Connector: Size 2 Souriau Connector
Protection Class	IP67
Laser Type	1mW, 670nm, Class 2 (DIN EN 60825-1 2007)
Vibration & Shock	20G 10Hz-1kHz & 15G 6ms (IEC 68-2-29)
Weight	1.7oz (Excluding cable or connector)
Options	Custom Filters, Cable Length, Connector and Labelling

PMC/KA Sensors adopts a continuous development program which sometimes necessitates specification changes without notice

Sensors For Motorsport

Features

- Lightweight - 1.7oz
- 8 or 20 inch Range
- 32-230°F Temp Range
- Replaceable Lens
- Up to 4Khz rate

Applications

- Ride Height
- Suspension Setup
- Chassis Distortion
- Bodywork Deflection

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Represented by:

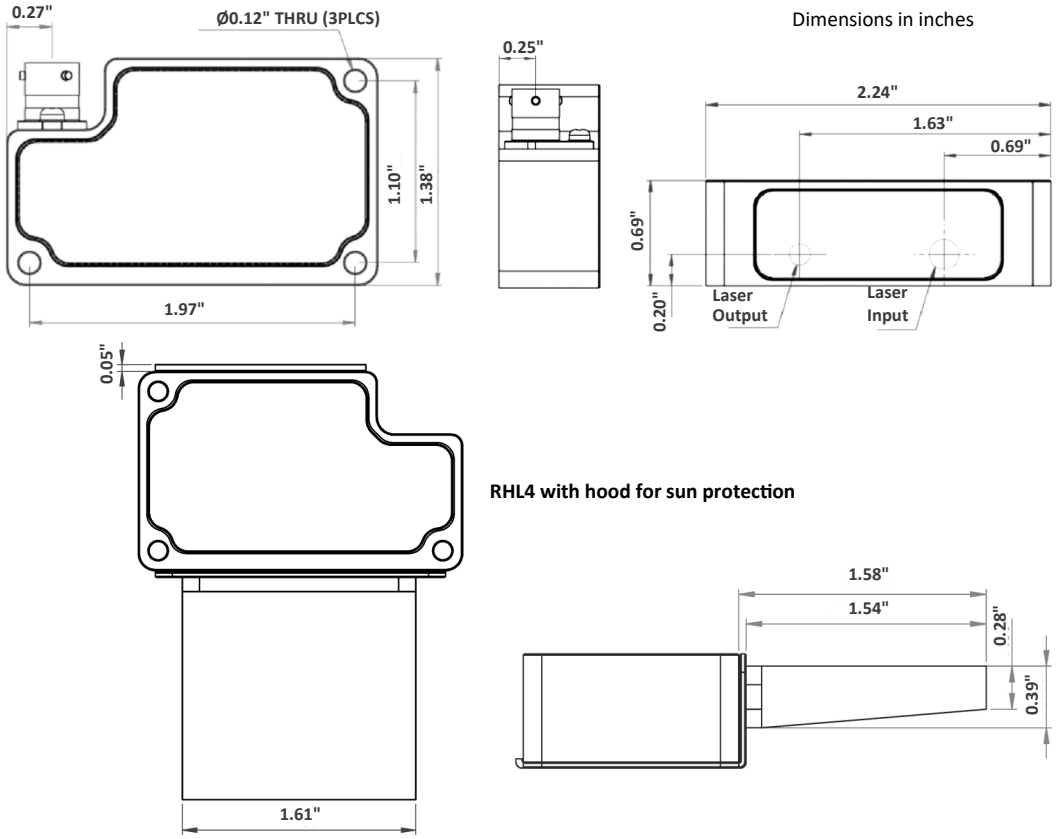
Part Number Configurator

RHL4 - [ ] - [ ] - [ ] - [ ] - [ ] - [ ]

Range (inches)	8 inches	A08
	20 inches	A20
Electrical Connection	Half Flange Connector (N Keyway)	ASX
	Cable: 26AWG, 55spec Wire + DR25 Sleeve	CAB
Measurement Rate (Hz)	250	02
	500	05
	1000	10
	2000	20
	4000	40
Averaging Filter Option	No Filter	0
	9 Position Median Average	9
	Moving Average, 32 Step	M3
Cable Length (If Applicable)	Not Applicable (Connector)	000
	40 inches	A40
	80 inches	A80
Special Code	Sun hood	768

The KA configuration tool is used to specify a standard KA Sensor, other options are available.

Mechanical Details



RHL4 with hood for sun protection

Electrical Details

+Ve Supply	0V Supply	Signal	Not Connected
Red (Pin1)	Black (Pin2)	White (Pin3)	Pin 4 & 5
Wire Colors (Pin Numbers for Connector Type Souriau 8STA-0-02-05-PN)			

Sense

Analyze

Control

Sensors For:

- Temperature
- Acceleration
- Pressure
- Position
- Torque
- Speed
- Angle
- Force

Services For:

- Data Logging
- Telemetry
- Controls
- Wiring

Contact Us

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