

RHL3 SERIES LASER RIDE HEIGHT SENSOR

The Model RHL3 series of laser ride height sensors are designed to withstand the harsh environment of industrial and motorsport applications. The sensor has a small diameter visible laser which is reflected off the track surface to a precision CCD detector which determines the height from the ground.

Supplied in two standard measurement ranges of 200mm (60-260mm) or 500mm (200-700mm), the RHL3 is ideal for use on all types of vehicle including Formula Cars, NASCAR, Touring, Indy Cars, GT, LMP, Rally, Off Road, Karts and more.

The measurement rate of 750Hz and linearity between 0.2 to 0.5% ensures a fast and accurate recording of real time car data. The supply voltage is a common 11-30V which is readily available on most data logging systems and the analogue voltage output is 1-5V.

Construction is ruggedized against high vibration and temperature. An anodized aluminium 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	200mm (60-260) or 500mm (200-700)
Resolution	200mm is 0.1mm & 500mm is 0.6mm
Linearity	200mm is $\pm 0.2\%$ FS & 500mm is $\pm 0.5\%$ FS
Measurement Rate	750Hz
Thermal Effects	0.08% FS/ $^{\circ}$ C
Output	1 to 5V
Ambient Light	<4000lx
Supply	11-30V (50mA)
Operating Temperature Range	0 $^{\circ}$ C to +110 $^{\circ}$ C
Storage Temperature Range	-20 $^{\circ}$ C to +125 $^{\circ}$ C
Construction	Black anodized aluminium case. Plastic replaceable lens
Electrical Connection	Cable: 26AWG, 55spec wire+DR25 sleeve or ASL Conn.
Protection Class	IP67
Laser Type	1mW, 670nm, class2 (DIN EN 60825-1 2007)
Vibration & Shock	20G 10kHz-1kHz & 15G 6ms (IEC 68-2-29)
Weight	90g (Excluding cable or connector)
Options	Cable length, connector fitted, AV mounts and labelling

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

Sense Measure Control

Features

- *Miniature Size*
- *200 or 500mm Range*
- *0-110 $^{\circ}$ C Temp Range*
- *Rugged Construction*
- *Replaceable Lens*
- *$\pm 0.2\%$ Linearity*

Applications

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

Contact us

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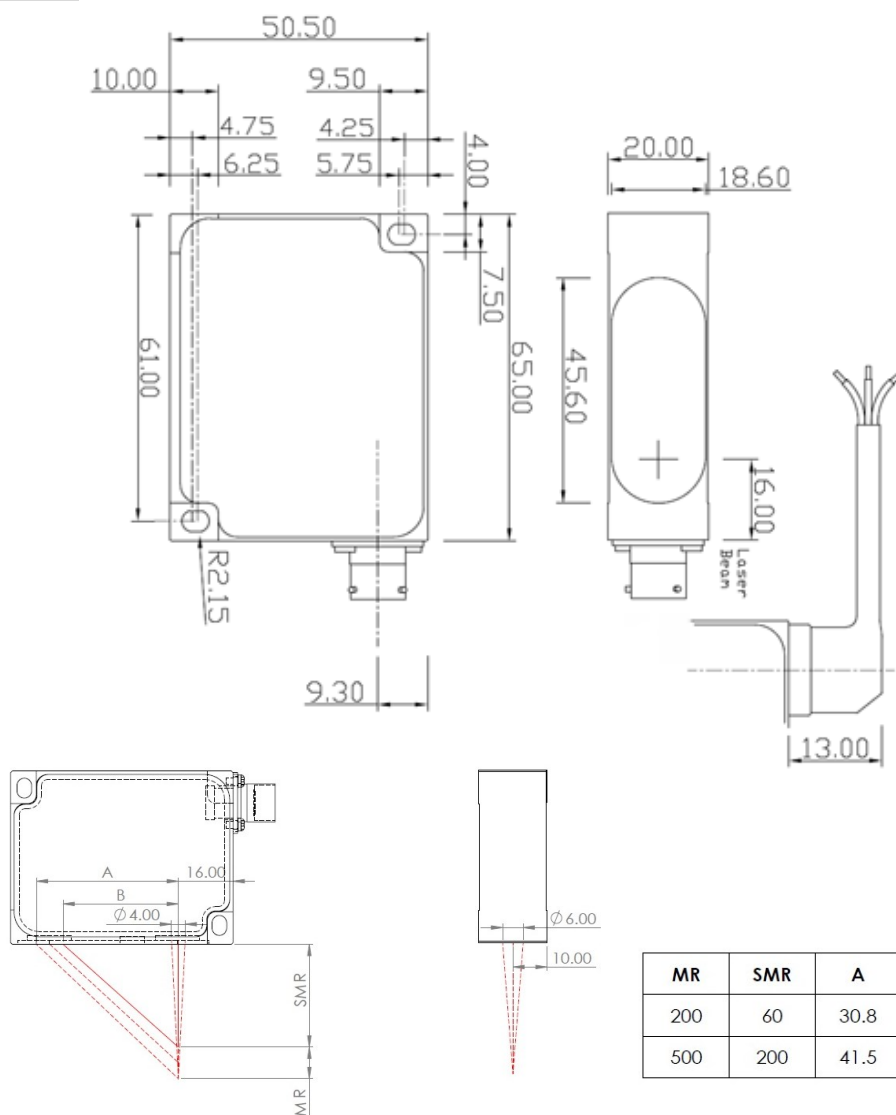
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KAfigurator		RHL3	500	ASL	P	N	000	000
Range (mm)	200		200					
	500		500					
Electrical Connection	Connector & mating half			ASL				
	Cable: 26AWG, 55spec wire+DR25 sleeve			CAB				
Pin Type	Pins				P			
	Sockets				S			
	Not Applicable				0			
Key Way	N Keyway				N			
	C Keyway				C			
	Not Applicable				0			
Cable Length (If applicable)	Not Applicable (Connector)						000	
	100 cm						100	
Special Code	None							000

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

MECHANICAL DETAILS



CONNECTION DETAILS

+Ve Supply	0V Supply	Signal	Not Connected
Red (Pin1)	Black (Pin 2)	White (Pin 3)	Pin 4 & 5

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**Sense
Measure
Control**

Sensors for

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

Services for

- Data Logging
- Telemetry
- Controls
- Wiring
- Design

KA Sensors are

- Engineering led
- Confidential
- Experienced
- Responsive
- Dynamic
- Friendly

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