

# RIDE HEIGHT SENSOR LASER



The Laser ride height sensor gives a 0.2 to 4.8V output which is proportional to its displacement above the ground. The displacement is calculated by triangulation from the position of the reflected beam.

A teach line allows the units measuring range to be adjusted without needing additional software, as well as a reset function to take the unit back to its original settings. The product is a class 2 Laser.

## Electrical

- Supply voltage 10 to 28V unregulated
- Supply reverse polarity protected
- Maximum supply current <80mA
- Resolution (matt white ceramic target) 0.02 – 1.0mm
- Non-linearity  $\pm 0.08\text{mm}$ ,  $\pm 3.0\text{mm max}^1$
- Response time <2ms
- Temperature drift 0.06% of measuring distance/ $^{\circ}\text{C}$
- Output 0.2 to 4.8V

<sup>1</sup> Non-linearity dependent on the measuring range programmed

## Optical

- Light source: pulsed red laser diode
- Laser class 2
- Wave length 650nm
- Laser beam size: height 3...10mm, width 2mm

## Mechanical

- Measurement range 50 to 500mm
- Minimum teach range: 10mm<sup>2</sup>
- Weight less than 75g (including cable)
- Aluminium body hard anodised black

<sup>2</sup> The teach line allows a different measuring range to be programmed down to 10mm range within the original measurement range

## Application

- Dynamic measurement of vehicle height above ground

## Cable and Connection Definition

- 24 AQG 4 core screened cable
- Cable length 1000mm
- Connection
 

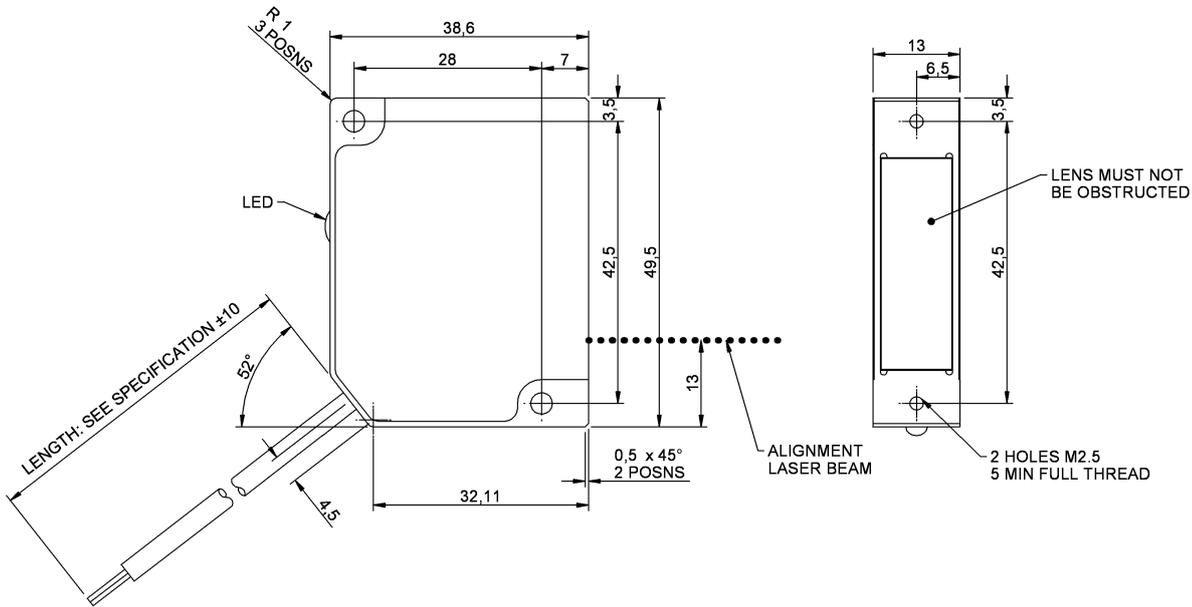
Red wire	Supply
White wire	Signal
Black wire	Ground
Blue wire	Teach <sup>2</sup>
Screen	n/c

Design and manufacture is in-house, so if our existing designs do not suit your application, we can provide cost effective customised parts to suit even the most demanding application. No engineering charges are made for simple modifications such as customer specific connectors, cable protection and cable lengths. Please contact our technical consultancy service who will be pleased to help.

## Environmental

- Suppression of interfering light:  
50-450mm 100k Lux  
450-500mm 85k Lux
- Maximum humidity 100%
- Operating temperature 0 to +70 $^{\circ}\text{C}$
- DR25 jacketed cable
- Resistant to standard motorsport fluids
- The sensor reading will change if the lens becomes scratched or dirty

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**Cable Length**  
1000mm

**Order Code**  
O 030 320 011 005