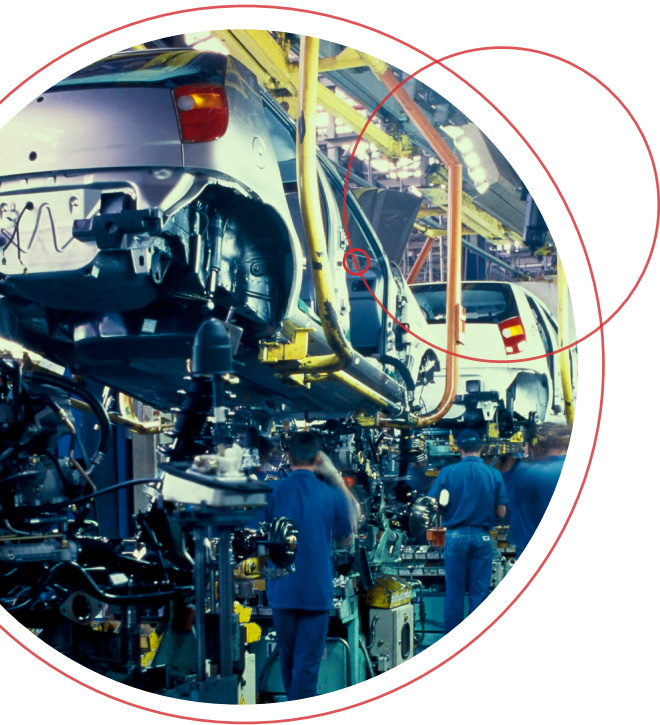


# HOKUYO

## UBG-05LN

### OBSTACLE DETECTOR



A PC programmable  
scanner for autonomous  
vehicle protection.

5 metre range  
180° scan window  
0.36° resolution  
31 programmable detection areas

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In the same ultra compact housing as the UBG-04LX -F01 the Hokuyo UBG-05LN is a fully featured standalone obstacle detector ideal for all forms of autonomous vehicle, ensuring equipment is protected from impact. Detection areas can be pre-programmed via a PC and uploaded to the sensor. The desired detection area and switching points can be selected by I/O. The scanner features a simple interface via a RS232 connection to a PC for programming

## Model Number

## UBG-05LN

Range	5m
Scan window	180°
Power source	24VDC (Operative range 18 to 30VDC, ripple within 10%)
Current consumption	150mA or less (rush current approx. 300mA when 24VDC)
Light source	Semiconductor laser diode 785nm (FDA approval, Laser safety class 1)
Detectable object	125x125mm white sheet
Scanning range	Distance 0.1 to 5m, width 4m within scanning angle 180°
Scanning accuracy	0.1 to 1m ±20mm, 1 to 5m: 2% of measuring distance
Repeatability	0.1 to 1m: ±10mm
Angular resolution	Step angle: approx 0.36° (360°/1024 steps)
Beam diameter	Approx ø50m (at 5m)
Detection area setting	Output1: free to draw with max. 7 pointers (0 to 4m) Output2/3: (1) Straight (2) Fan shape (3) Percentage of output1 area points
Hysteresis	6.25% of measuring distance
Output	Photo-coupler/ open-collector output (30VDC, 50mA) Output 1, 2, 3: OFF when object detected in area Malfunction output: Turns ON during normal detection
Output response time	210msec or less (Scanning speed 100msec/1 revolution)
Input	Voltage range of photo-coupler input (anode common): 18 to 30VDC Area changeover: Set area numbers with Input 1,2,3,4,5. Laser radiation stops with all inputs ON
Input response time	Input reading frequency: 1 scan time (100msec)
Start up time	Within 10sec of power on
Connection	Cable 1m
Case materials	Front case: polycarbonate, rear case: ABS resin
Protective structure	IP64
Weight	Approx. 185g (260g including cable 1m)

For more information:

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