





Obstacle detection for autonomous vehicles.

3 metre range 180° scan window 1.8° resolution 15 programmable detection areas



Contained in an ultra compact housing the PBS-03JN from Hokuyo is a fully featured standalone obstacle detector ideal for all forms of autonomous vehicle. 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. This device is specifically used for scanning the path in front of an AGV or AGC ensuring the protection and safety of equipment from impacts and accidents which may reduce productivity.

Model Number

PBS-03JN

Range		3m
Scan window		100°
Power source		24VDC (Allowable range 18 to 30VDC including ripple)
Current consumption		250mA or less (100mA or less when emission stops)
Light source		Infra-red LED (wave length 880nm)
Detectable object		300x300mm white sheet
Detecting range		0.2 to 3x2m
Beam diameter		Approx ø100m (at 3m)
Area setting	Output 1	Free to set with pointer (max 7 points) (possible to set from 0 to 6m for optical axis direction)
	Output 2, 3	Linear setting to progressive direction, fan-shaped setting to optical axis direction. Percentage setting against 1 pointer
Hysteresis		10% or less of detecting distance (not smaller than 60mm)
Output		Photo-coupler/ open-collector output (30VDC, 50mA) Output 1, 2, 3: OFF when detected in area Trouble output: ON during normal operation
Output response time		180msec or less (scanning speed: 1rev/100msec) 2-scanning operation mode: 280msec or less (excl. for 100msec, area changeover time
Input		Photo-coupler input (Anode common, each input current 4mA or more), changover of setting area
Input response time		Input taking-in cycle: 1 scanning time (100msec)
Connection		Cable 1m
Case materials		Front case: polycarbonate, rear case: ABS resin
Protective structure		IP64
Weight		500g

For more information:

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