

# Hokuyo UXM-30LX-EW



The **Hokuyo UXM-30LX-EW Scanning Laser Rangefinder** is in many ways Hokuyo's most **farsighted scanner**. Normal objects can be seen up to 50m away, while those difficult to see "low reflectance" objects (10% reflectivity & above) can be seen from a distance of 30m. Additionally, the **multi-echo functionality** ensures that low level "noise" caused by **adverse weather** conditions such as snow, rain, fog and dust, is filtered out.

The **UXM-30LX-EW** is available with USB or Ethernet connectivity and weighs in at less than 800g. With **outstanding outdoor performance** we see the **UXM-30LX-EW** being used in larger mobile robots and intelligent AGV's.

## Hokuyo UXM-30LX-EW key features:

- Detects objects with normal reflectivity at 50m & above
- Objects with 10% reflectivity "seen" at 30m
- Multi-Echo Detection ideal for outdoor applications
- Performs well in rain, snow, mist and dust
- 30 meter range/190° scan window
- Ethernet Interface
- IP67

# Hokuyo UXM-30LX-EW Scanning Laser Rangefinder technical details ...

• Model Number	UXM-30LX-EW
• Supply voltage	10 to 30VDC
• Consumption current	
• During operation :	500mA or less at 10/12VDC, 250mA or less at 24VDC
• Start-up :	2A or less at 10VDC, 1.5A or less at 12VDC, 0.75A or less at 24VDC
• Light Source	Laser diode $\lambda=905\text{nm}$ , Laser class 1
• Principle	Direct Time of Flight
• Detection Range	0.1 to 30m *1 Black(diffuse reflectance 10%, 500mm X 500mm), 190°
• Multi-Echo function	Max. 3-output of distance data per step
• Accuracy	
• Under 3,000lux or less :	0.1 to 10m $\pm 50\text{mm}^*2$ (Black: diffuse reflectance 10%, 500mm X 500mm)
• Under 100,000lux or less :	01. to 30m $\pm 100\text{mm}^*2$ (Black: diffuse reflectance 10%, 500mm X 500mm)*2
• Angular Resolution	0.25°
• Scanning Speed	50msec/scan (Motor speed: 1200rpm)
• Interface	Ethernet 100BASE-TX (Auto-negotiation), TCP/IP Synchronous output , Trouble output (Nch Open drain output 30VDC 100mA or less)
• Indication lamp	Power(Green), Operating/Trouble (Orange) Operating: light-up Trouble: blink
• Communication protocol	SCIP2.2 (Exclusive command)
• Connection	Power source / output (cable 2m length), Ethernet (Connector model 09-0431-87-04 Binder products*3)
• Ambient Temp/Humidity	10 to +50°C (-25 to +75°C when stored), 85%RH or less (without condensing and icing)
• Vibration Resistance	Double amplitude 1.5mm, 10 to 55Hz for each 2 hours in X, Y and Z directions
• Impact Resistance	196m/s., each 10 times in X, Y and Z directions
• Protective structure	IP67 (IEC standard)
• Weight	Approx. 800g (not including the cable weight)

\*1 Please verify the actual performance of the sensor under the intended working environment conditions.

\*2 Measurement under direct interference light is not assured (Sunlight, etc.).

\*3 The other side : Binder products 99-0430-57-04 (Option).