

Scanning Laser Range Finder

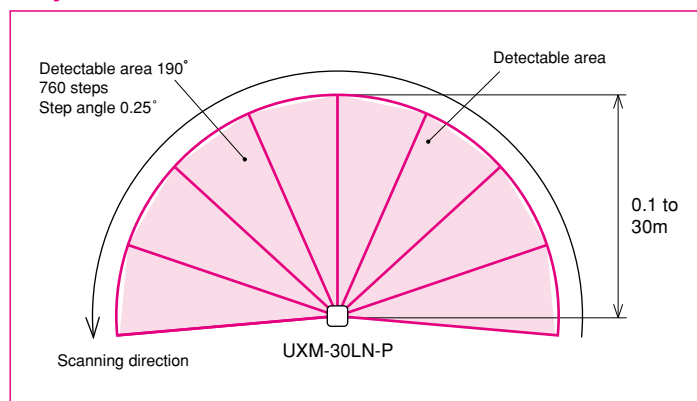
UXM-30LN-P FDA approval

Possible to detect black car!

- Light weight, 1kg or less!
Easy to install it at the higher place!
- Possible to set ON/OFF-delay timer
Possible to cancel the quick motion objects.
- Minimum detectable range configuration
Don't detect dust etc.
- Minimum detectable width configuration
Don't detect small animals or dead leaves.
- Possible to register 16 kinds of area and to changeover by outer input
Malfunction output and 3 detecting output are provided.
- Safety design
FDA Laser Class 1, Intrinsicly safe!



System structure



Applications

Vehicle detection at multistory parking lot



Specifications

Kinds	Detection area setting type (parallel type)
Model No.	UXM-30LN-P
Power source	10 to 30VDC
Current consumption	During operating: 500mA or less when 10/12VDC, 250mA when 24VDC When starting up: 2A or less when 10VDC, 1.5A or less when 12VDC
Light source	Semiconductor laser diode $\lambda=905\text{nm}$ (FDA approval, Laser safety class 1)
Principle	Time of flight (pulse system)
Detectable object	6m: $\phi 10\text{mm}$, 10m: $\phi 20\text{mm}$, 30m: $\phi 130\text{mm}$ (Min. objects against the distance)
Scanning range	0.1 to 30m*1 (Black diffuse reflection 10%, 500mm \times 500mm)
Scanning accuracy	3,000lux or less \rightarrow 0.1 to 10m: $\pm 50\text{mm}$ (500 \times 500mm or more, white paper)*2 100,000lux or less \rightarrow 0.1 to 30m: $\pm 100\text{mm}$ (500 \times 500mm or more, white paper)*2
Angular Resolution	Step angle: 0.25° (360° / 1,440 steps)
Scanning angle	190°
Scanning time	50msec/scan (Motor speed: 1,200rpm)
Interface	USB2.0 (Full Speed, 12Mbps for area setting) Trouble output, detection output 1, 2, 3 (Nch open-drain output 30VDC 100mA or less)
Input	Area input 1, 2, 3, 4 (total 16 patterns)
Indication lamps	Power lamp (green), Operating lamp (orange): Lights up when detecting, blinks when troubled

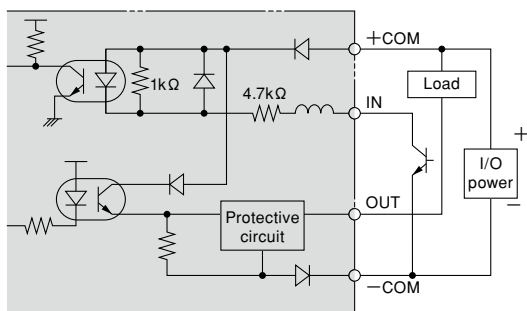
Connection	Cable 2m, USB: connector (Binder 09-0431-81-04)* ³
Ambient temperature/ humidity	-10 to +50°C (-25 to +75°C when stored), 85%RH or less, not icing, not condensing
Insulation resistance	10MΩ 500VDC megger
Vibration resistance	Double amplitude 1.5mm, 10 to 55Hz, each 2 hour in X, Y and Z directions
Impact resistance	196m/s ² , each 10 time in X, Y and Z directions
Protective structure	IP64 (IEC standard)
Life	5 years (motor life, vary depending on use conditions)
Noise	25dB or less
Case materials	Front of case: Polycarbonate, back of case: aluminum
Weight	Approx.800g (excluding cable)

*1. Verify the actual performance of the sensor under the intended working environment.
 *2. Measurement under direct interference light is not assured.(sunlight etc.)
 *3. The other side:Binder 99-0430-10-04.(option) USB cable for UXM series.(as an option)

Note This is not safety device.

Connection

Input/ output circuit



Wiring table

● Power/ interface cable

Cable colors	Signals
Brown	10 to 30VDC
Blue	0V
Green	Area input 1
Yellow	Area input 2
Purple	Area input 3
White/yellow	Area input 4
Orange	Trouble output
Black	Detection output 1
White	Detection output 2
White/blue	Detection output 3
Red	COM for I/O (+COM)
Gray	COM for output (-COM)
Yellow/red	NC
Yellow/green	NC
Yellow/black	NC
White/purple	NC

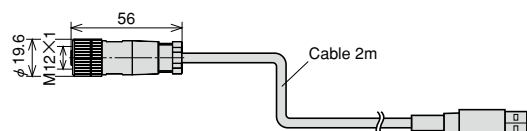
Note) Connect unused input cable to +COM (red).
 Note) Connect unused output cable to -COM (gray).

● Connector (USB)

Binder 09-0431-81-04

● USB cable for UXM series (option)

UZ00023



External dimension

