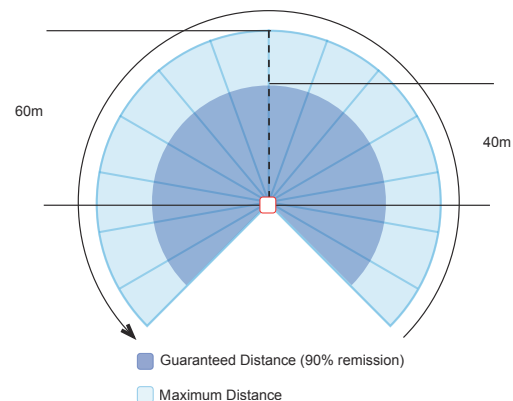


Area Detection Model

CE

URM-40LC-EWT



At a glance

- Max. range for data output : 60m
- Max. range for area detection : 60m
- LX mode (data output) / LA mode (area detection + data output) is switchable
- PNP output
- 3 detection output
- 7 field sets are available
- Data output is available by Ethernet
- Multi-echo function is available
- Angular resolution 0.25° / 0.125° is switchable
- IP67 protection and high contamination resistance
- Size : W80xD80xH95mm
- Weight : 450g

Type	Model	Maximum distance	Data output	Highest resolution
Detection output	URM-40LC-EWT	60m	○	0.125
	UXM-30LN-PW	30m	—	0.25
	UXM-30LAH-EWA	80m	○	0.125
	UXM-30LAH-EHA	80m	○	0.125
	UGM-50LAP / LAN	120m	○	0.08

Product description

- 2D laser scanner with 2 modes of data output (LX mode) and object detection with data output (LA mode)
- Equipped with fog filters, rain filters, the multi-echo function and sensitivity filters, it can reliably detect white objects (with 90% remission) up to a distance of 40 meters and it is ideal for outdoor use.

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Specification		URM-40LC-EWT
Electronics	Supply voltage	10VDC to 30VDC
	Supply current	700mA or less (12VDC)
	Start-up time	Within 15sec
	Light source	Laser semiconductor (905nm), Laser class 1
Detection	Maximum distance (Area detection)	0.1m~60m
	Maximum distance (Data output)	0.1m~60m
	Guaranteed distance (w/ White 90% remission)	40m
	Guaranteed distance (w/ black 10% remission)	18m
	Distance accuracy	± 20mm (0.1 to 30m w/ white 90% remission, 1,000lx or less)
	Standard deviation	$\sigma < 10\text{mm}$ (0.1 to 20m w/ white 90% remission, 1,000lx or less)
	Angle	270°
	Scanning speed	25msec / 50msec
	Angular resolution	0.25° / 0.125°
Function	Data output	Available by Ethernet communication
	PNP / NPN output	PNP
	No. of digital area output	3
	No. of digital area input	3 (7 area patterns and 1 laser off mode)
	Multi echo	Available
	LED indicator	1 x Blue : power, 3 x Orange : area status
Interface / Software	Interface	Ethernet
	Area configuration	Configured by software
General	Ambient illuminance	100,000lx (Note : avoid direct sunlight)
	Ambient operating temperature and humidity	Temperature : -30~50°C Humidity : below 85%RH (without dew, frost)
	Storage temperature and humidity	Temperature : -30~70°C Humidity : below 85%RH (without dew, frost)
	Vibration resistance	10 to 55Hz double amplitude of 1.5mm 55 to 150Hz 98m/s ² sweep of 2min
	Shock resistance	196m/s ² (20G)
	Insulation resistance	10M Ω / 500VDC
	IP protection	IP67
	Weight	450g
	Size W x D x H (mm)	80 x 80 x 95
	Material	Optical window : Polycarbonate, Case : Aluminum
Standards	EMC	(EMI) EN61326-1:2013 EN55011:2009 + A1:2010 (EMS) EN61326-1:2013 EN61000-4-2:2009 EN61000-4-3:2006 + A1:2008 + A2:2010 EN61000-4-4:2012 EN61000-4-6:2009 EN61000-4-8:2010

Connection

Power source, I/O connector :

M12 waterproof connector 12 core A-code socket (Male)

[Option cable]

URM-C005 : Power and I/O cable

Color	Function
Brown	+VIN (10VDC to 30VDC)
Blue	-VIN
White	COM +
Green	Area input 1
Pink	Area input 2
Yellow	Area input 3 / Synchronous master input
Black	COM -
Gray	Detection output 1 / Synchronous output
Red	Detection output 2
Purple	Detection output 3 / Synchronous master output
Gray / Pink	Ready output
Red / Blue	Malfunction output

Ethernet connector :

M8 waterproof connector 4 core A-code socket (Female)

[Option cable]

URM-ENET003 : Cable with 3m length

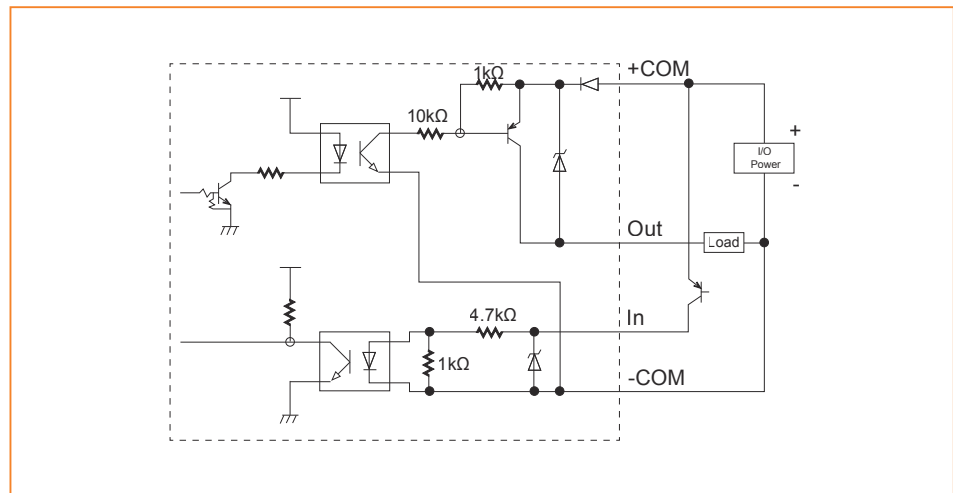
URM-ENET005 : Cable with 5m length

Input states and corresponding area number

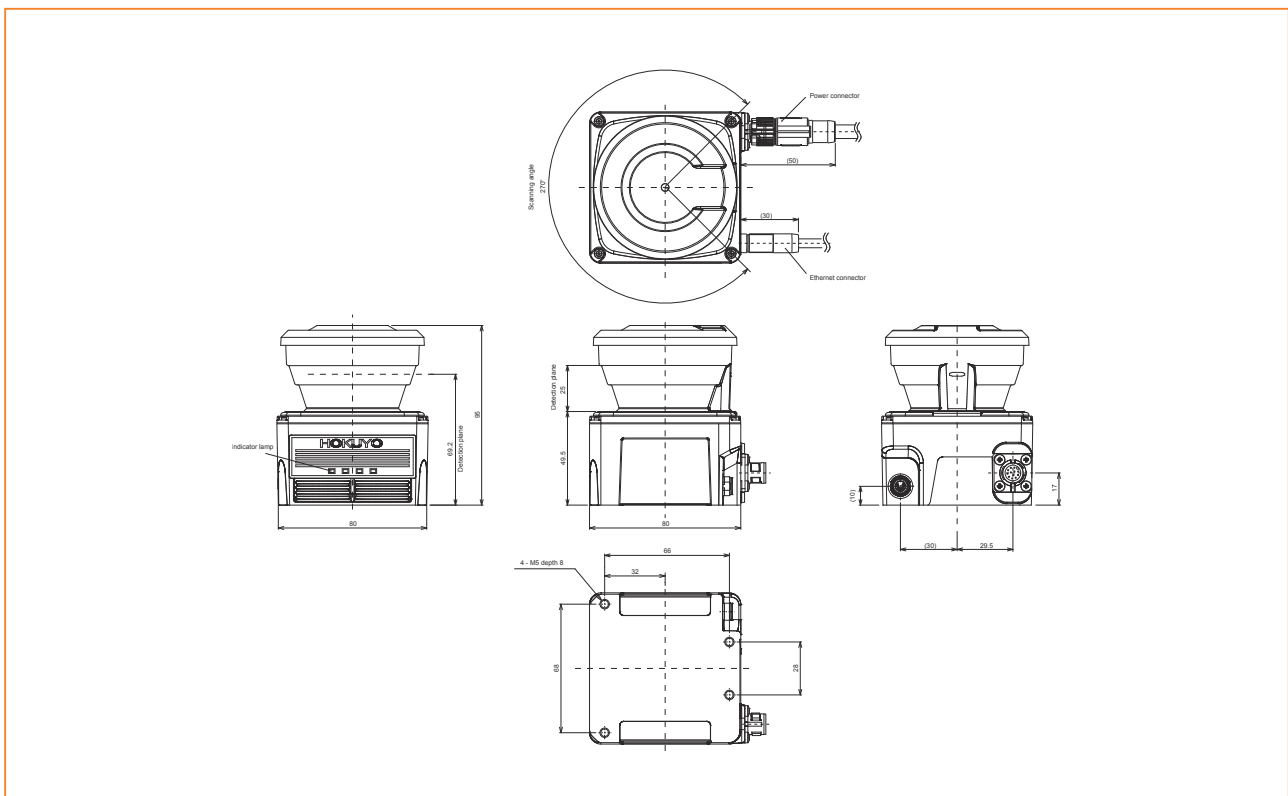
Area input 1	Area input 2	Area input 3	Area number
ON	ON	ON	Laser off
OFF	ON	ON	Area 1
ON	OFF	ON	Area 2
OFF	OFF	ON	Area 3
ON	ON	OFF	Area 4
OFF	ON	OFF	Area 5
ON	OFF	OFF	Area 6
OFF	OFF	OFF	Area 7

Note : When using the synchronous master function, the maximum area number will be 3.

I/O circuit



External dimension



Option

Power and I/O cable

Model	Code	Length
URM-C005	UZ00112	5m

Ethernet cable

Model	Code	Length
URM-ENET003	UZ00113	3m
URM-ENET005	UZ00114	5m

Bracket

Model	Code	Ref.
URM-BK01	UZ00115	Base mounting bracket
URM-BK02	UZ00116	Rear mounting bracket
URM-BK03	UZ00117	Cover bracket
URM-BK04	UZ00129	Outdoor hood cover (190°)
URM-BK05	UZ00130	Outdoor hood cover (270°)