

Date: 2024.02.06



## 2D Scanning LiDAR Sensors

# SPECIFICATIONS

Rev. 2.1.1



# VL-R270

Model: VL-R270IK01

# VL-R270(R270IK01)

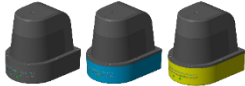
## PRODUCT SPECIFICATIONS



1. Features & Performance	
Technology	Time of flight (dToF)
Laser Source	905nm
Channels(Lines)	1Ch (Parallel scanning layers)
Detection Range	0.25m to 30m(20m@10% Reflectivity)
Horizontal FoV / Ang. Resolution	270° / 0.25°
Vertical FoV / Ang. Resolution	-
Range Accuracy	Typ. ±3cm
Frame Rate	15Hz, 20Hz, 25Hz User selection(Def. 15Hz)
Points per Second	Up to 27,000p/s(Frame Rate 25Hz)

\* Distance accuracy refers to performance when measured including temperature and reflectivity of an object in a typical use environment. However, it may depend on many other environmental factors.

2. Interface & Software	
Connector	M8(2 Ports)
Ethernet Connection (UDP/IP)	Input : Configuration / Output : Raw data
Serial Connection	RS-485 Modbus Input : Configuration / Output : Detect output status
Signal Output	4 Outputs Self-Check: 1 Output / Detect: 3 Outputs
Indicators	2 LEDs(Power & Operating status)
Software(Viewer)	3D Viewer(for Windows) & Configuration, F/W Update

3. Electronics & General	
Operating Voltage(VDC)	10V ~ 32VDC
Power Consumption	Typ. 2.2W
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +125°C
Size (mm)	70(W) × 87(D) × 85(H)
Weight (g)	330g (Without cabling)
Environmental Protection	IP66
Housing Color	Black : Default (Option : Blue, Yellow) 

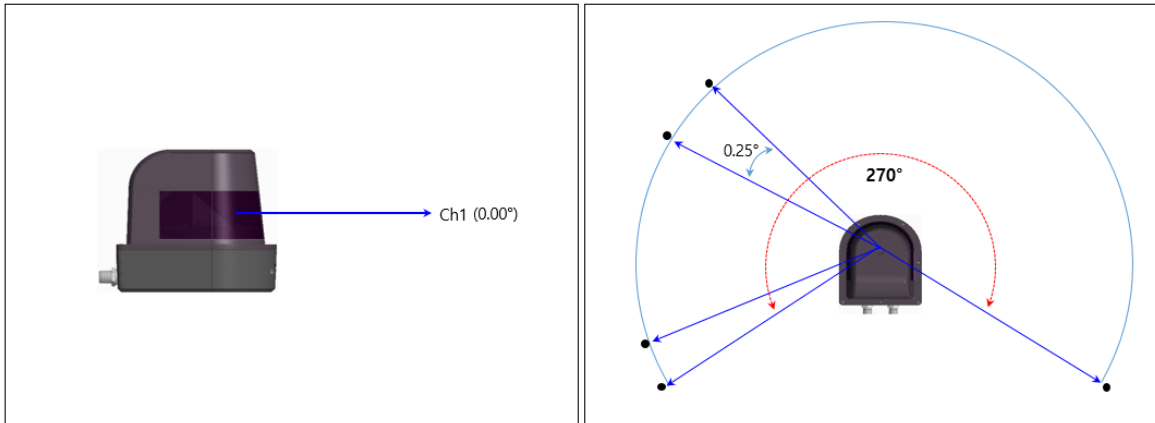
4. Optional & Accessories	
Comm. cable	M8 8Pins, AWG26, RJ45 / 3m
PWR/SIG. cable	M8 8Pins, AWG26 / 3m

**5. Certificate**

Certificate	KC / CE / Eye-safety(Class1)
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**6. Working Diagram**

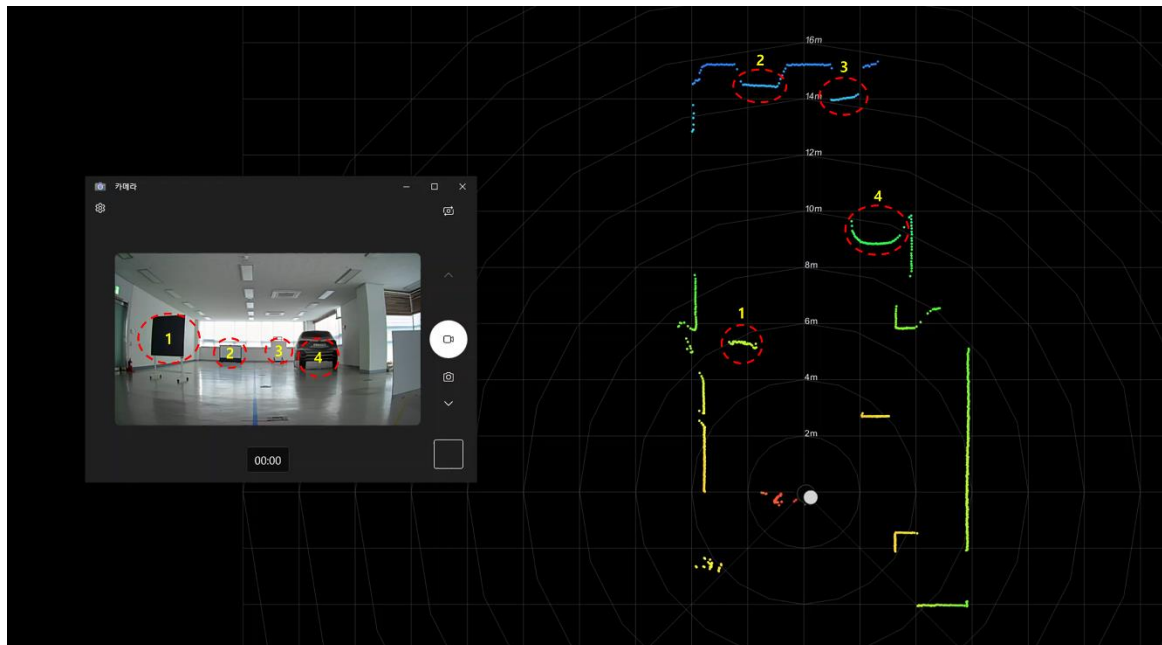
- Horizontal FoV / Ang. Resolution: 270° / 0.25°
- Vertical FoV / Ang. Resolution: -



[Vertical FoV Diagram]

[Horizontal FoV Diagram]

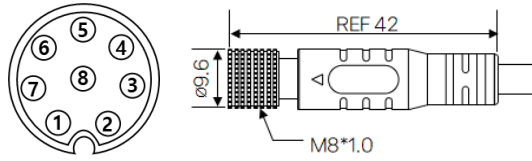
**7. Shape of point cloud**



\* The shape of the point cloud is an image that represents the shape of object recognition in a laboratory.  
\* It may vary depending on the user's installation and usage environment.

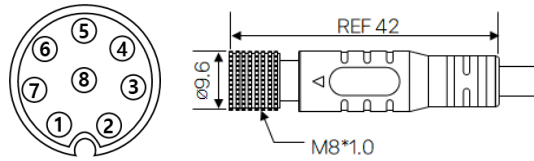
**8. Connector Info.**

**[8Pin\_COMM.]**



Pin No.	Color	Description
1	White	Ethernet RX-
2	Brown	Ethernet RX+
3	Green	Ethernet TX-
4	Yellow	Ethernet TX+
5	Gray	RS232 TX
6	Pink	RS232 RX
7	Blue	GND
8	Red	GND

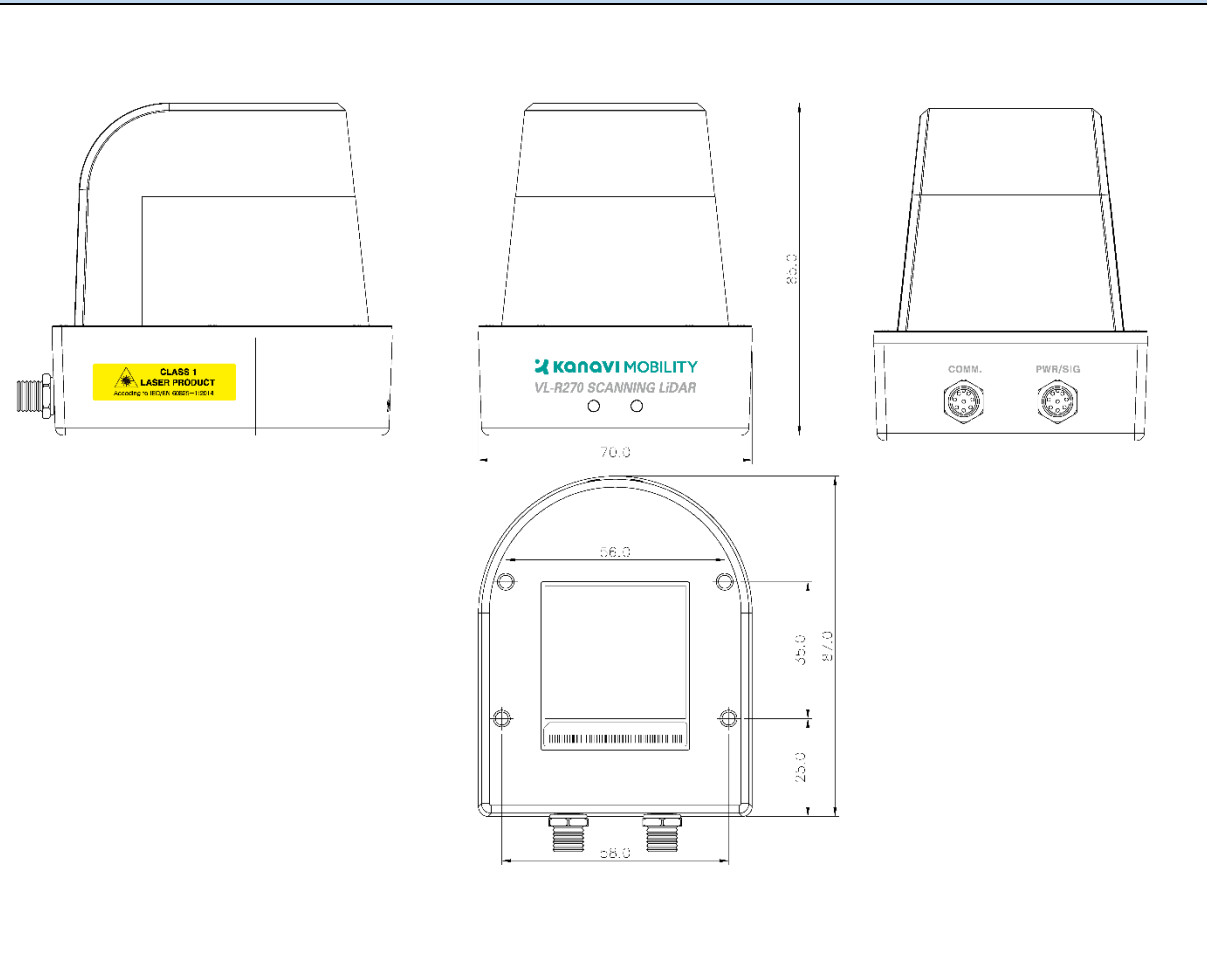
**[8Pin\_PWR/SIG.]**



Pin No.	Color	Description
1	White	RS485-
2	Brown	RS485+
3	Green	Switching Output A (Detecting Output)
4	Yellow	Switching Output B (Detecting Output)
5	Gray	Switching Output C (Detecting Output)
6	Pink	Switching Output D (Self Check Signal Output)
7	Blue	GND
8	Red	VDC

\* Switching Output Level : 5V

**9. Dimension(mm)**



## Corporate Headquarters

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