

Date: 2023.12.26

2Ch Scanning LiDAR Sensors

SPECIFICATIONS

Rev. 2.2.1



VL-R2

Model: VL-R002IK01

VL-R2(R002IK01)

PRODUCT SPECIFICATIONS



1. Features & Performance	
Technology	Time of flight (dToF)
Laser Source	905nm
Channels(Lines)	2Ch (Parallel scanning layers)
Detection Range	0.25m to 70m (40m@10% Reflectivity)
Horizontal FoV / Ang. Resolution	120° / 0.25°
Vertical FoV / Ang. Resolution	3° / 3°
Range Accuracy	Typ. ±3cm
Frame Rate	15Hz
Points per Second	14,400p/s

* 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(2Ports)
Ethernet Connection (UDP/IP)	Input : Configuration / Output : Raw data
Serial Connection	-
Signal Output	3 Outputs Self-Check: 1 Output / Detect: 2 Outputs
Indicators	1 LED(Power & Operating status)
Software(Viewer)	3D Viewer(for Windows) & Configuration, F/W Update

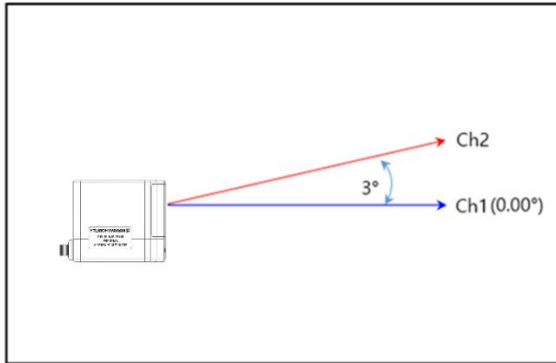
3. Electronics & General	
Operating Voltage(VDC)	10 ~ 32VDC
Power Consumption	Typ. 1.7W
Operating Temp.	-40°C ~ +85°C
Storage Temp.	-40°C ~ +125°C
Size (mm)	102(W) × 57(H) × 65(D)
Weight (g)	245g (Without cabling)
Environmental Protection	IP66

4. Optional & Accessories	
Comm. cable	M8 4pins, AWG26, UTP, RJ45 / 6m
PWR/SIG. cable	M8 8Pins, AWG26 / 6m

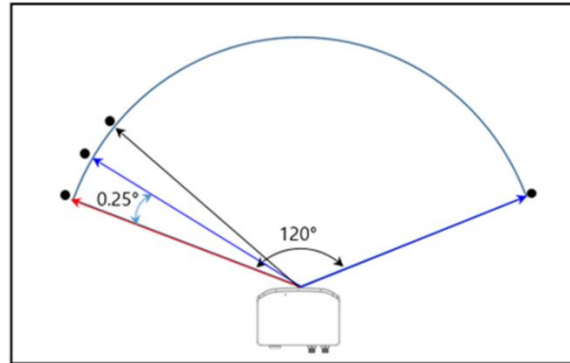
5. Certificate	
Certificate	KC / CE / Eye-safety(Class1) / KRS SG 0068-17®

6. Working Diagram

- Horizontal FoV / Ang. Resolution: 120° / 0.25°
- Vertical FoV / Ang. Resolution: 3° / 3°

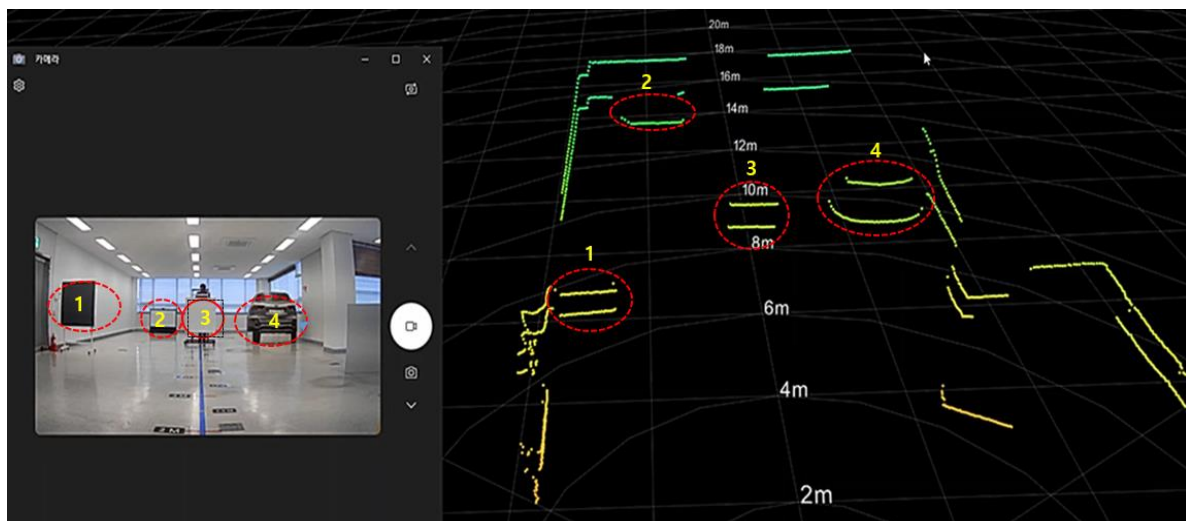


[Vertical FoV Diagram]



[Horizontal FoV Diagram]

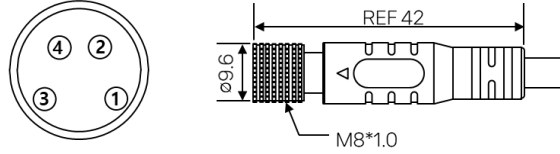
7. Shape of point cloud



- * 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.

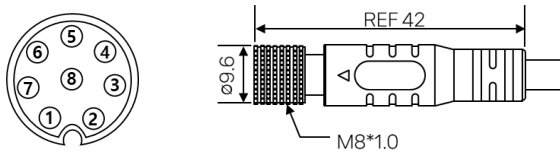
8. Connector Info.

[4Pin_Comm.]



Pin No.	Color	Description
1	White/Orange	Ethernet TX+
2	White/Blue	Ethernet RX+
3	Orange	Ethernet TX-
4	Blue	Ethernet RX-

[8Pin_PWR/SIG.]

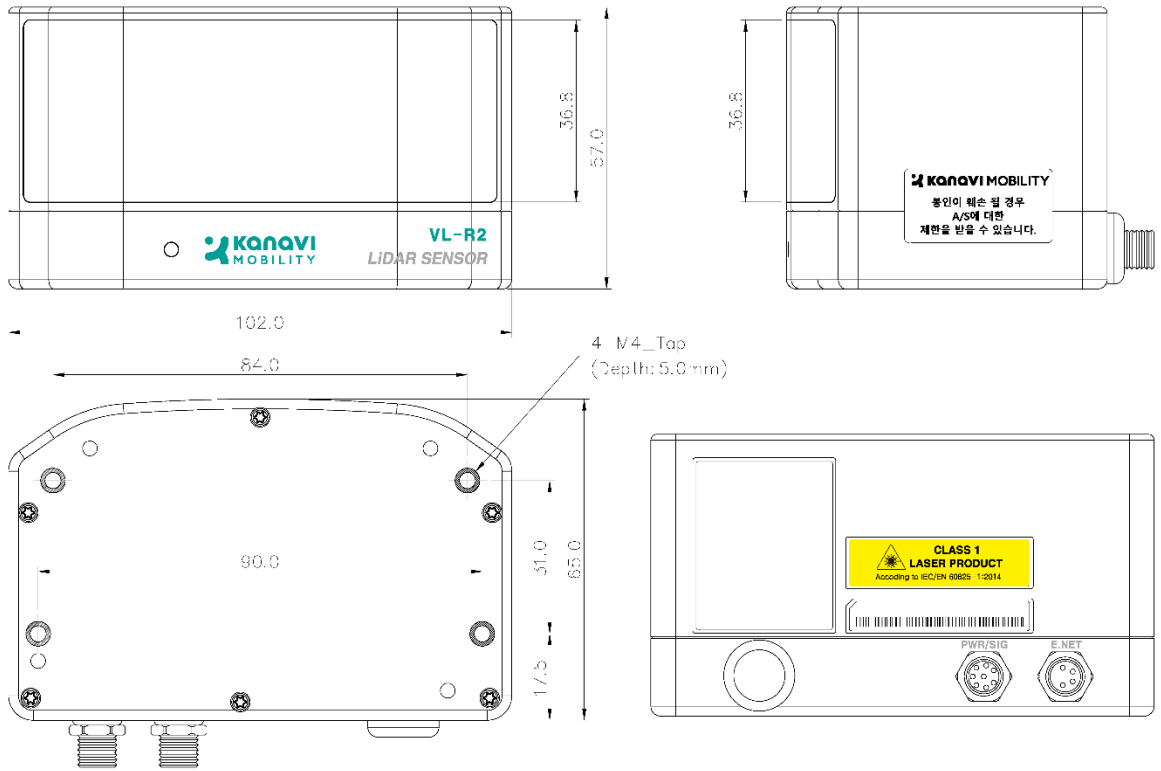


Pin No.	Color	Description
1	White	-
2	Brown	-
3	Green	GND
4	Yellow	Switching Output A (Self Check Signal Output)
5	Gray	Switching Output B (1Ch Detecting Output)
6	Pink	Switching Output C (2Ch Detecting Output)
7	Blue	GND
8	Red	VDC

* Switching Output Level : Same as Input Voltage

* If Pin Output Mode is Standard, Switching Output B and C output common signal

9. Dimension(mm)



Corporate Headquarters

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