

Datasheet

Kuva camera

Dual SWIR/RGB camera with BT-PoE

Version 16 from September 1, 2025



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1 Technical specifications

1.1 Environmental

Feature	Specification
Operating temperature	-40 °F to 122 °F (-40 °C to 50 °C)
Storage temperature	-40 °F to 158 °F (-40 °C to 70 °C)
Ingress protection	IP65
Area classification	General Purpose

1.2 System

Feature	Specification
Target gas	Methane, VOCs (C1 - C6+)
Primary IR sensor	Multiband shortwave IR (SWIR)
Secondary color sensor	5MP RGB color
Single-image Field-of-View (FoV)	46° (V) x 45° (H)
Points-of-View configuration	Points of interest can be contiguous, or isolated
Maintenance	No regular maintenance. Occasional window cleaning recommended. No sensor replacement required
Calibration	Automatic. No manual site-specific calibration required during installation or operation

1.3 Detection Performance

Feature	Specification
Detection range ¹	Typical: 16 ft (5 m) to 164 ft (50 m) Ideal: 16 ft (5 m) to 492 ft (150 m)
Wind requirement for detection	Wind is not needed to transport emissions to the camera for detection. The camera performs remote imaging from a stand-off distance
Initialization process	15 minutes from power-on to fully functional
90% Probability of detection ²	109 SCFH 74 Sm ³ /d 2.2 kg/h
Minimum detection limit ²	12 SCFH 8 Sm ³ /d 0.25 kg/h
False positive rate ²	0%
Leak pinpointing ²	100% accurate for equipment, 99% accurate for component
Monitoring frequency	From 19 to 156 site surveys/h depending on number of site areas to monitor depending on the number of FoVs.

1.4 Physical

Feature	Specification
Weight	25 lbs (11.4 kg)
Finish	White powder coat

¹ Leak rate and weather dependent

² Independently validated results by Methane Emission Technology Evaluation Center (METEC) per Advancing Development of Emissions Detection (ADED) continuous monitoring protocol blind testing over a 5-month period in a variety of duration, flow rate, wind speed and solar irradiation. Refer to <https://energy.colostate.edu/metec/aded/>.

Dimensions (H x W x D)	18" x 17" x 15" (46 cm x 43 cm x 38 cm) + 8.5" anemometer + 11" camera mount post
Camera mount	1.57" (40 mm) I.D. pipe with U-bolt

1.5 Electrical

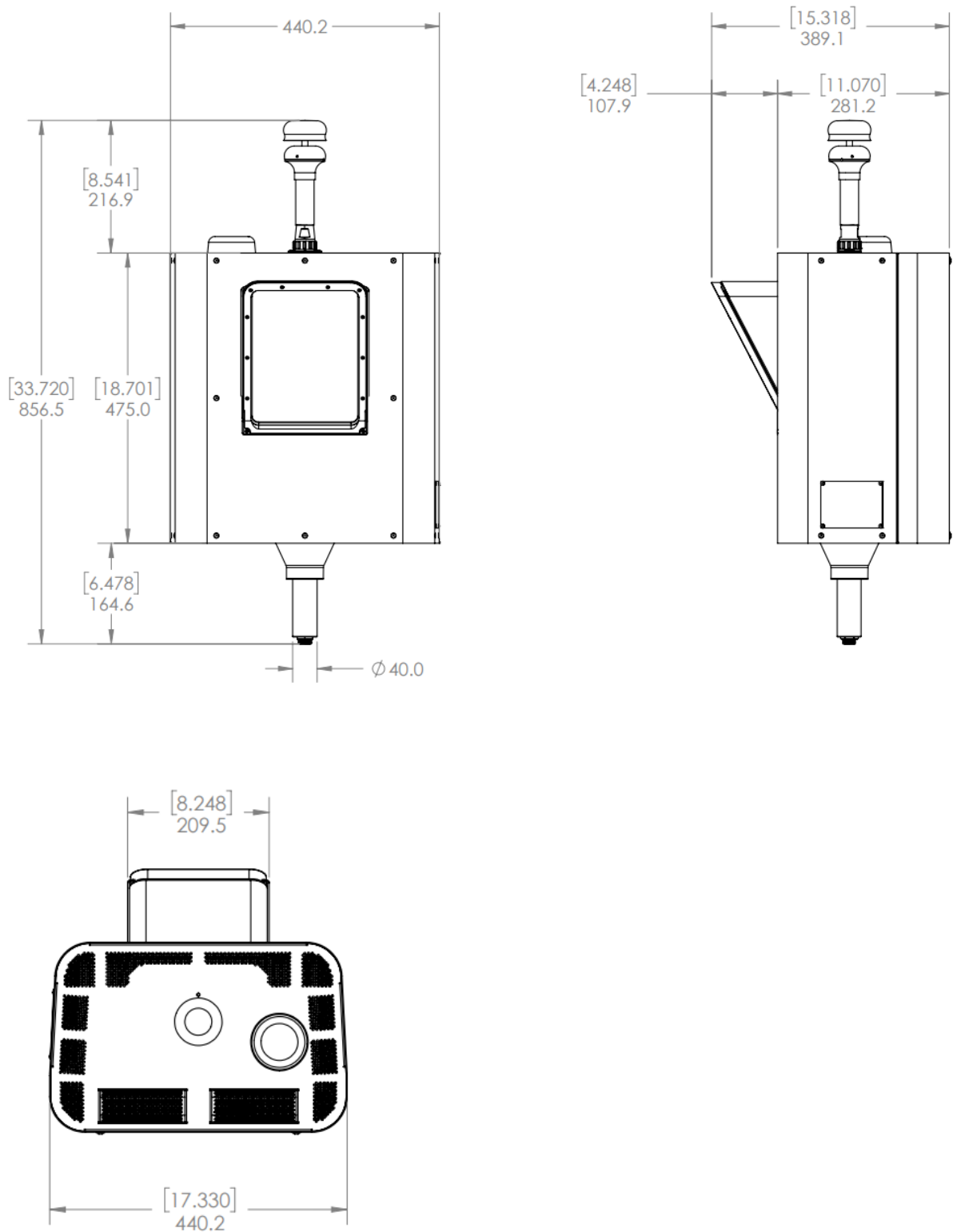
Feature	Specification
Power supply	PoE, IEEE 802.3bt Type 3 Class 6
Typical operating power consumption	30 W
Battery life for solar powered systems	3.3 days backup power per IEEE 1562-2007

1.6 Communications

Feature	Specification
Communications	10 Mbps minimum. Options: • Site's 10/100/1000 MBit/s Ethernet standard (10 Mbps minimum) • Camera's integrated 4G/LTE cell modem • Point-to-point radio link • Starlink
Data buffer	9 days buffer in the event of a lost connection

2 Technical drawings

Sensirion Kuva camera (dimensions in [inches] and millimeters)



3 Conformity information

3.1 FCC notice



Warning

Do not open the device. Do not modify the device in any way. Including, but not limited to, exchanging the included antenna, replacing the included modem, making changes to the power supply or circuit board.



NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, can cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to attempt to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
- Consult the dealer or an experienced radio/TV technician for assistance.

3.2 Frequency band(s) and maximum radio-frequency power transmitted

This product includes the following features and characteristics:

Band	Operating frequency range
B1	1920 to 1980 MHz
B2	1850 to 1910 MHz
B3	1710 to 1785 MHz
B4	1710 to 1755 MHz
B5	824 to 849 MHz
B7	2500 to 2570 MHz
B8	880 to 915 MHz
B9	1749.9 to 1784.9 MHz
B12	699 to 716 MHz
B13	777 to 787 MHz
B14	788 to 798 MHz
B19	830 to 845 MHz
B20	832 to 862 MHz
B25	1850 to 1915 MHz
B26	814 to 849 MHz
B28	703 to 748 MHz

Available cellular technologies and maximum output power	
4G LTE Technology	4G LTE CAT 4
4G LTE TX Output Power	23 ± 0.5 dBm
3G Technology	WCDMA
3G TX Output Power	23.5 ± 0.5 dBm
2G TX Technology	GSM
2G TX Output Power	33 dBm

4 Important legal notices

Warning, Personal Injury

Do not use this product as safety or emergency stop devices or in any other application where failure of the product could result in personal injury. Do not use this product for applications other than its intended and authorized use. Before installing, handling, using or servicing this product, please consult the manual and data sheet. Failure to comply with these instructions could result in death or serious injury. Please also consult local laws and regulations, in particular with regard to the radio frequencies used by this product.

If the Buyer purchases or uses SENSIRION CONNECTED SOLUTIONS (SCS) products for any unintended or unauthorized application, the Buyer shall defend, indemnify and hold harmless SCS and its officers, employees, subsidiaries, affiliates and distributors against all claims, costs, damages, expenses and reasonable attorney fees arising from, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if SCS is allegedly negligent with respect to the design or the manufacture of the product.

Ancillary services required

This product is part of the SCS continuous methane emission monitoring solution 'Kuva' and requires a subscription to Kuva's online platform, Kuva's data integration services, or both, all available from SCS for proper functioning. SCS reserves the right, without further notice, (i) to change the product specifications and/or the information in this document, (ii) to improve the reliability, functions and design of this product and (iii) to modify the cloud service and data analytics algorithms.

5 Revision history

Date	Revision	Page(s)	Changes
01.09.2025	16	All	Template Change

6 Contact

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