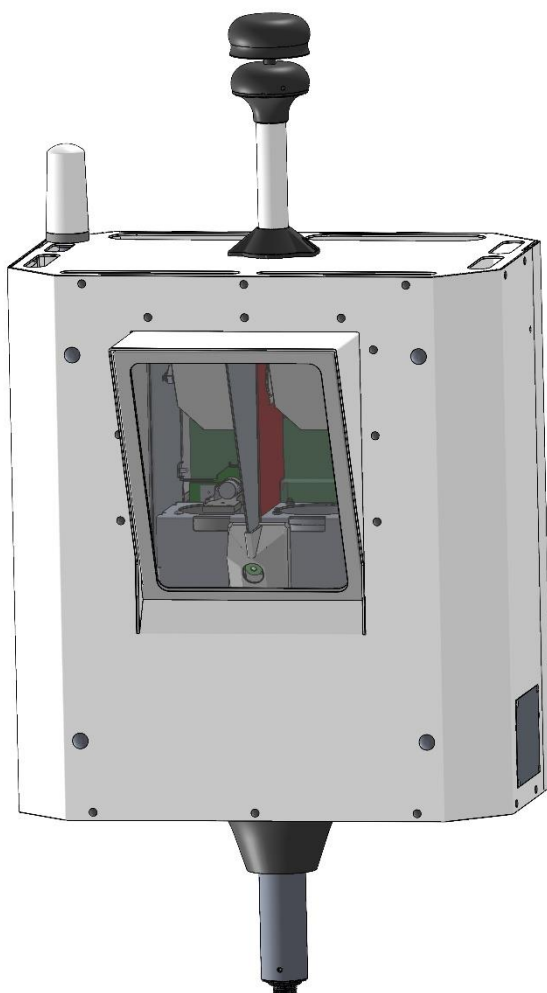


## Datasheet

# Kuva camera

Dual SWIR/RGB camera

Version 16 from September 1, 2025



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## 1 Technical specifications

### 1.1 Environmental

| Feature               | Specification                      |
|-----------------------|------------------------------------|
| Operating temperature | -40 °F to 131 °F (-40 °C to 55 °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 <sup>1</sup>              | Typical: 16 ft (5 m) to 164 ft (50 m)<br>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 <sup>2</sup> | 109 SCFH   74 Sm <sup>3</sup> /d   2.2 kg/h   |
| Minimum detection limit <sup>2</sup>      | 12 SCFH   8 Sm <sup>3</sup> /d   0.25 kg/h  |
| False positive rate <sup>2</sup>          | 0%  |
| Leak pinpointing <sup>2</sup>             | 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 |

<sup>1</sup> Leak rate and weather dependent

<sup>2</sup> 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

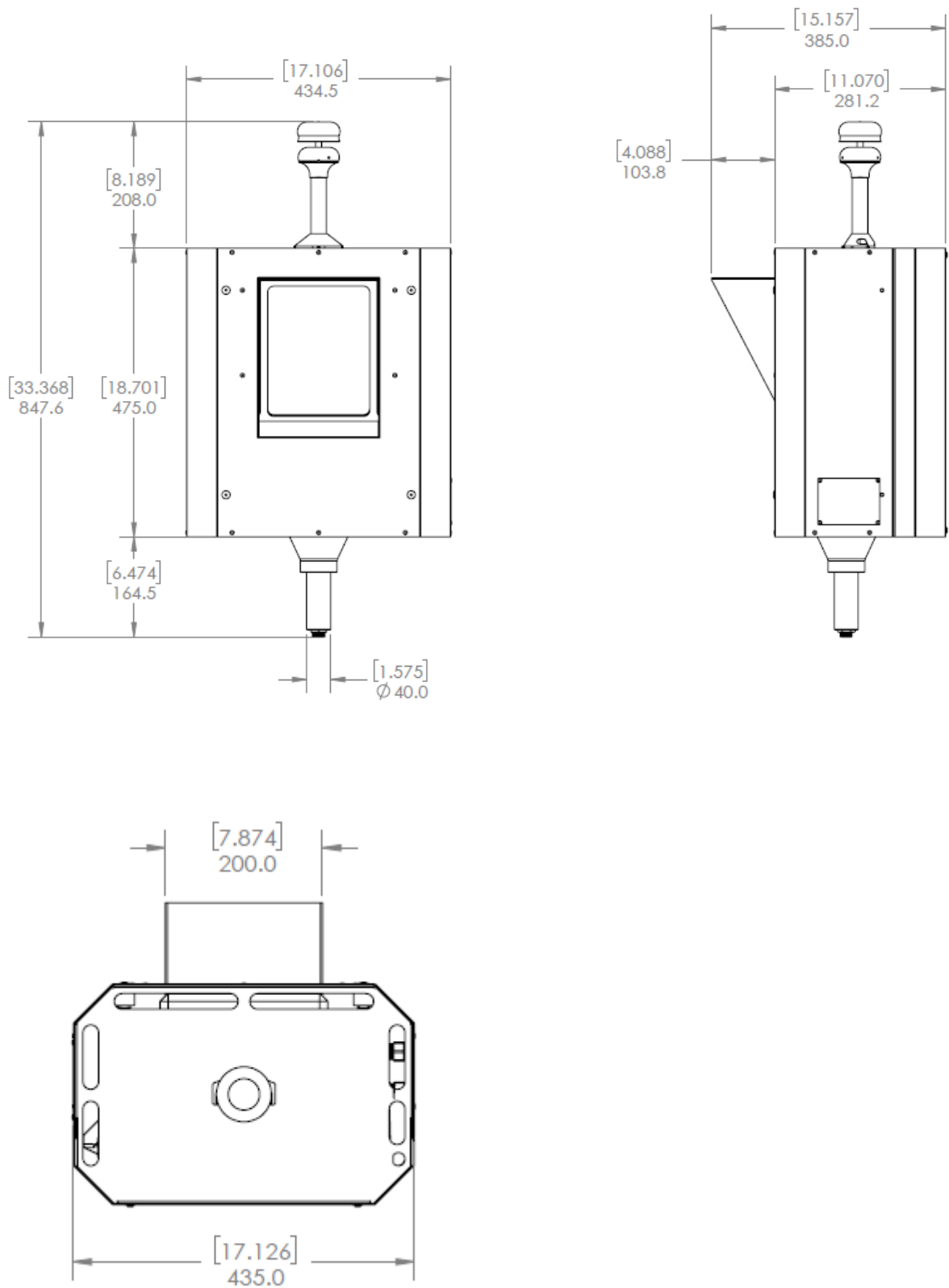
| Feature                                | Specification   |
|--|---|
| Supply voltage                         | 22 Vdc to 32 Vdc  |
| Supply current                         | 2.5 A, fused at 4 A                                       |
| Nominal power                          | 35 W  |
| Peak power                             | 48 W  |
| Power supply                           | Passive Power-over-Ethernet (PoE) via integrated splitter |
| 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: <ul style="list-style-type: none"> <li>• Site's 10/100/1000 MBit/s Ethernet standard (10 Mbps minimum)</li> <li>• Camera's integrated 4G/LTE cell modem</li> <li>• Point-to-point radio link</li> <li>• Starlink</li> </ul> |
| 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 |

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