

SenseCAP Sensor Catalog

All-in-One Senses for
Every Environment



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About SenseCAP

SenseCAP is Seeed Studio's IoT product series built for outdoor, industrial, and smart city applications. It integrates sensors, data loggers, trackers, gateways, and the SenseCraft platform, enabling users to configure devices, monitor data, and manage IoT deployments efficiently.

About Sensor Probes

Our range of SenseCAP industrial sensor probes are designed to withstand harsh environments such as vibration and exposure to chemicals and gases, which is common in industrial applications, and our industrial range of sensors is equipped with serious IP ratings from IP66 to IP68 to ensure the products perform soundly in respective harsh environments.

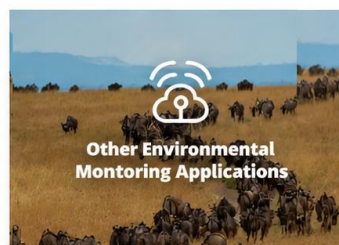
SenseCAP Sensor Probes also feature process connections to ensure a secure fit in the medium being measured, along with sensor data transmitters which convert the signal to suit industrial instrumentation systems.

Some of the MODBUS RS485 Industrial Sensors come in two versions. The main difference is the cable connector. Please choose the version that best suits your needs:

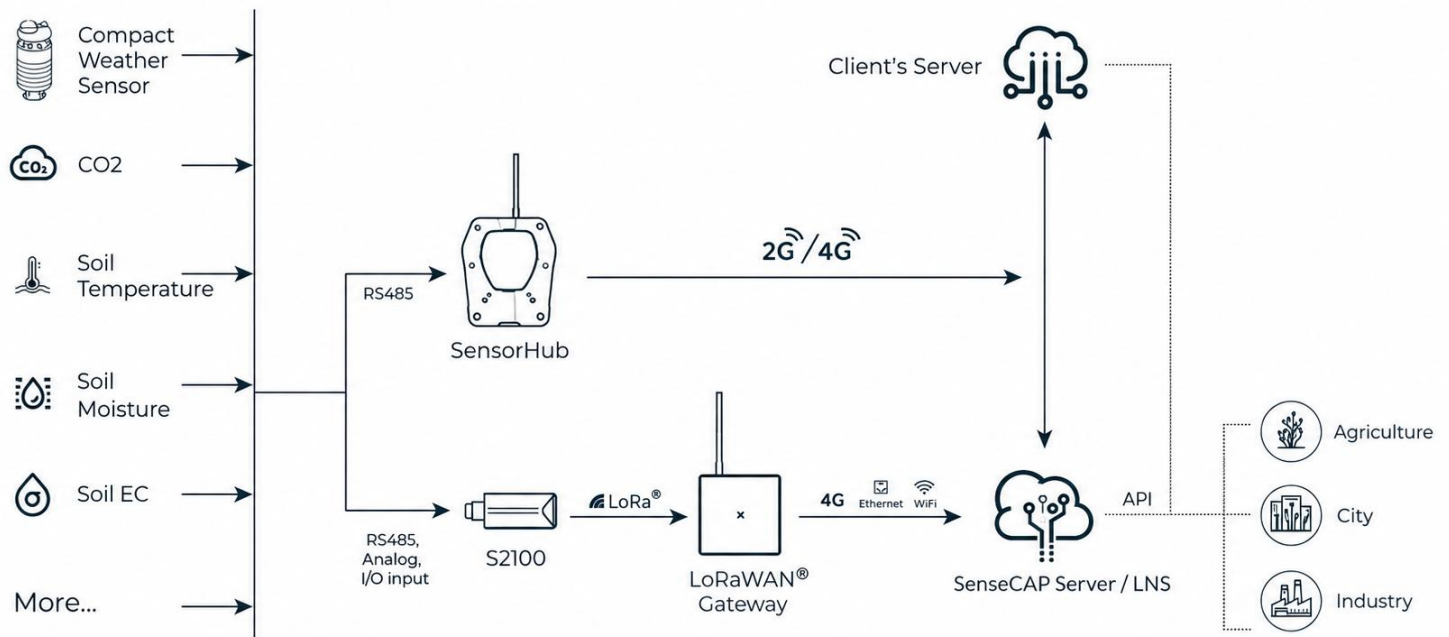
(1) The one with hook-up wires is suggested to use with SenseCAP LoRaWAN® [Data Logger](#) to connect with the LoRaWAN® network, enjoying the benefits of low-power and long-range communication.

(2) The one with aviation connector already preconfigured SenseCAP Sensor Hub [4G Data Logger](#) with plug-and-play experience to collect various sensor data via 3G/4G LTE.

Application



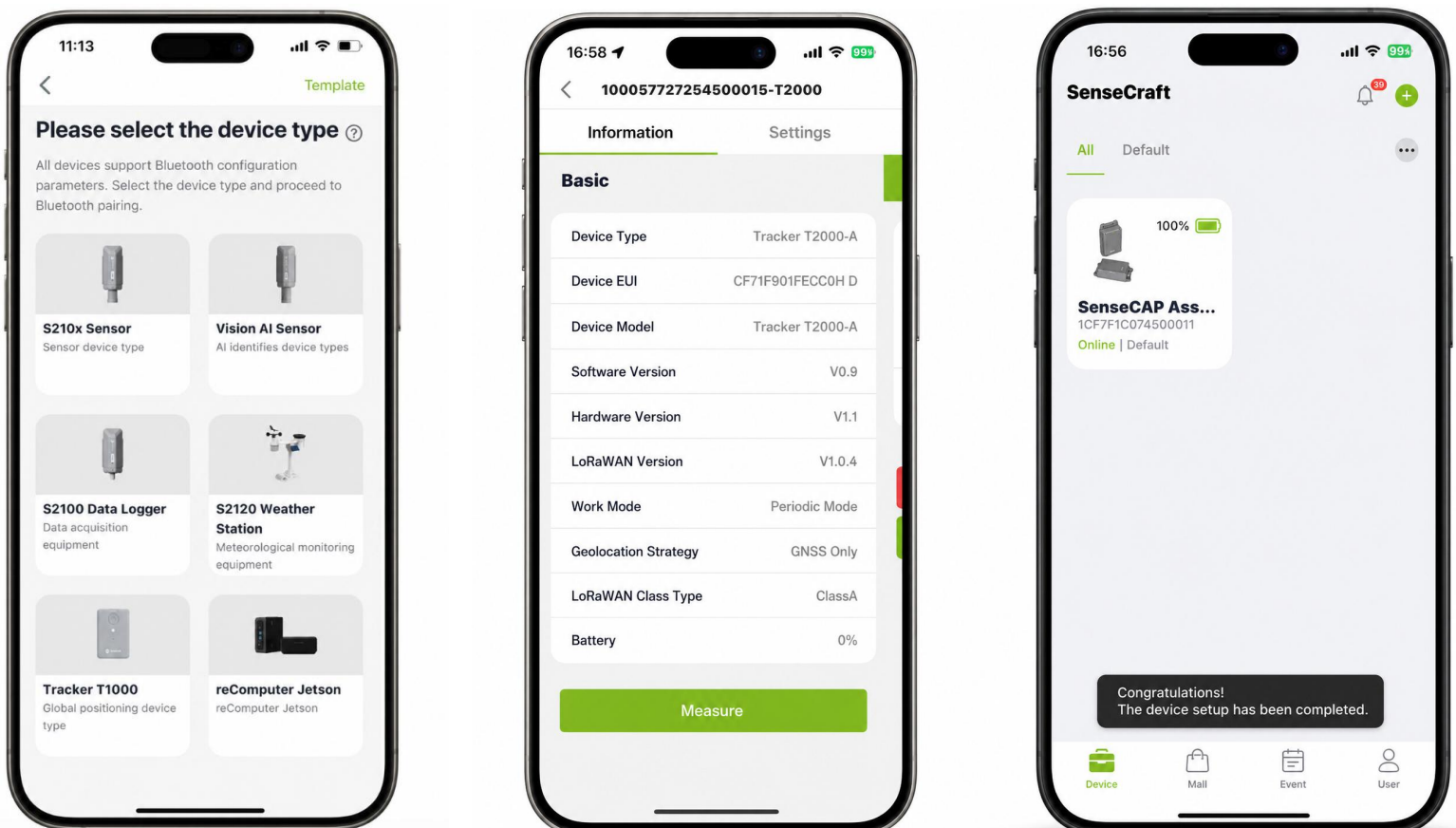
Architecture



The LoRa® Mark is a trademark of Semtech Corporation or its subsidiaries.

Get Data on SenseCAP Platforms

SenseCraft is an integrated mobile application and platform for SenseCAP devices.



SenseCAP Portal

SenseCAP Portal is a web-based platform which enables

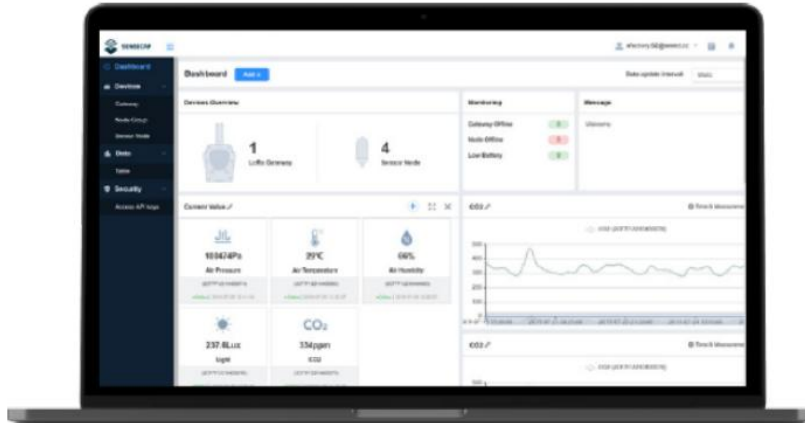
- Device management
- Data management
- API Access Key management

Visit SenseCAP Portal:

<https://sensecap.seeed.cc>

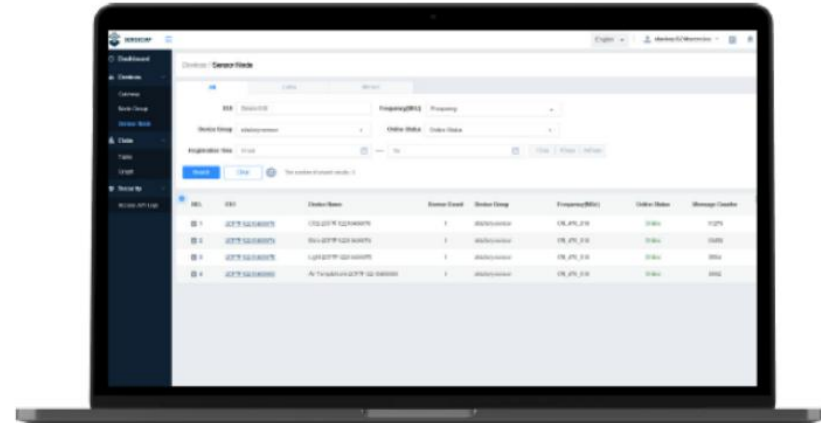
For more info, please visit:

<https://solution.seeedstudio.com>



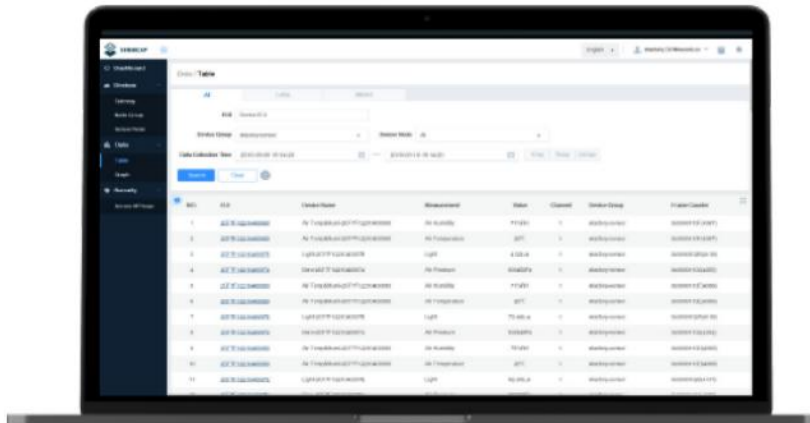
Dashboard

Including Device Overview, Data Upload Interval, Announcement, Scene Data, and Data Chart, etc.



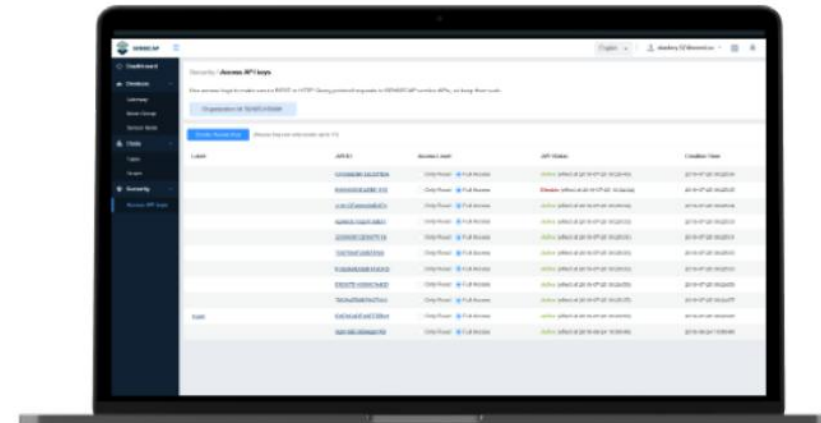
Device Management

Manage SenseCAP devices



Data Management

Manage data, including Data Table and Graph section, providing methods to search for data.



Access Key Management

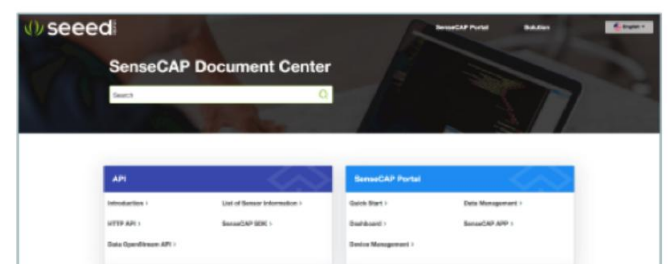
Manage Access Key (to access API service), including: Key Create, Key Update, and Key Check.

Application Programming Interface (API)

SenseCAP also provides API to support further development.

Please visit this link for more info:

<https://sensecap-docs.seeed.cc>



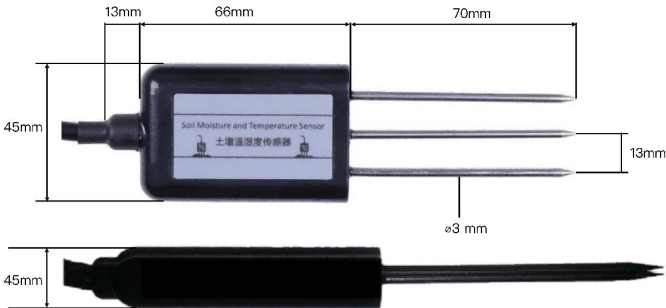


SenseCAP RS485 Soil Moisture & Temperature Sensor

SKU [101990668](#) [314990620](#)(with waterproof connector)

An IP68 RS485 Soil Moisture and Temperature Sensor ranges from 0% to 100% of saturation and -40°C ~ +80°C. Used in soil applications like water-saving irrigation and greenhouse management. Use the sensor with SenseCAP Data Logger for seamless data collection and management.

DIMENSION



SPECIFICATIONS

Soil Temperature	Range: -40°C to +80°C
	Accuracy: ±0.5°C
	Resolution: 0.1°C
Soil Moisture	Range: 0% to 100% saturation
	Accuracy: ±3% (0-53%); ±5% (53-100%)
	Resolution: 1%

Product Model	S-Soil MT-02A/S-Soil MT-02B
Interface	RS-485; 0-2V voltage
Protocol	MODBUS-RTU RS485
Power Supply	3.6-30V DC; 3.9-30V DC
Current Consumption	6mA at 24V DC
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Response Time	< 1 second
Measuring Area	Cylinder area, probe as center; diameter 7cm, height 7cm
Probe Material	Food-grade stainless steel
Seal Material	Black flame-retardant epoxy resin
IP Rating	IP68
Cable Length	5 meters
Installation	Fully buried, or probe inserted into measured medium
Device Weight	270g

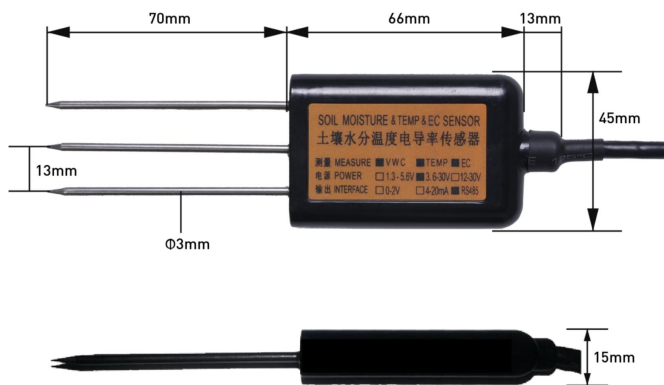


RS485 Soil Moisture, Temperature & EC Sensor

SKU [101990667](#) [314990621](#)(with waterproof connector)

An IP68 RS485 soil moisture, temperature, and EC sensor measures 0% to 100% saturation, -40°C to +80°C, and 0 to 10,000 uS/cm electrical conductivity. Suitable for horticulture and gardening applications, with robust anti-corrosion construction for long-term use.

DIMENSION



SPECIFICATIONS

Soil Temperature	Range: -40°C to +80°C
	Accuracy: ±0.5°C
	Resolution: 0.1°C
Soil Moisture	Range: 0% to 100% saturation
	Accuracy: ±2% (0-50%); ±3% (50-100%)
	Resolution: 0.03% (0-50%); 1% (50-100%)
Electrical Conductivity	Range: 0-10,000 uS/cm
	Accuracy: ±3%
	Resolution: 10 uS/cm
	Temperature compensation: built-in sensor; range 0-50°C

Product Model	S-Temp&VWC&EC-02A/EC-02B
Measurement Items	Soil Moisture, Soil Temperature, Electrical Conductivity
Interface	RS-485
Protocol	MODBUS-RTU RS485
Power Supply	3.6-30V DC
Current Consumption	6mA at 24V DC
Operating Temperature	-40°C to +85°C
Probe Material	Anti-corrosion special electrode
Sealing Material	Black flame-retardant epoxy resin
IP Rating	IP68
Cable Length	5 meters
Installation	Fully buried, or probe inserted into measured medium
Device Weight	210g

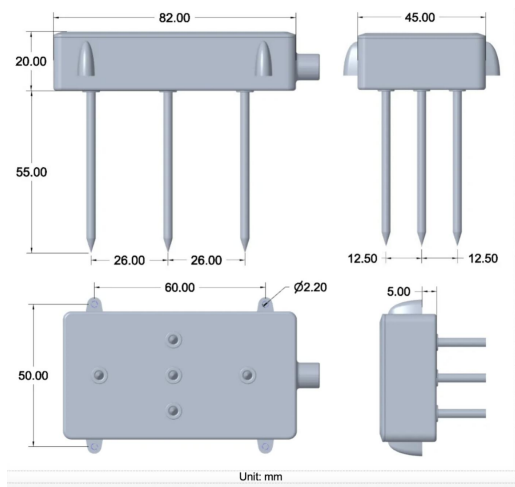


RS485 Substrate Moisture, EC & Temperature Sensor

SKU [101991241](#)

An IP68 RS485 substrate moisture, EC, and temperature sensor for soil and soilless substrates such as rockwool, cocopeat, and potting soil. It measures VWC from 0-100%, EC from 0-20 dS/m, and temperature from -40°C to +80°C.

DIMENSION



SPECIFICATIONS

Substrate Moisture	VWC Range: 0-100%
	VWC Accuracy: $\pm 3\%$
	VWC Resolution: 0.1%
Dielectric Permittivity	Range: 1-81
	Accuracy: ± 1 (1-40); $\pm 10\%$ reading (40-81)
Electrical Conductivity	Range: 0-20 dS/m
	Accuracy: $\pm 5\%$ (0-7 dS/m); $\pm 10\%$ reading (7-20 dS/m)
	Resolution: 0.01 dS/m
Temperature	Range: -40°C to +80°C
	Accuracy: $\pm 0.5^\circ\text{C}$; Resolution: 0.1°C

Product Model	S-Temp&VWC&EC-04A
Output Interface	RS485, Modbus-RTU
Power Supply	3.9-28V DC
Power Consumption	Quiescent current <4mA; measuring current <20mA during 150ms measurement
IP Rating	IP68
Operating Temperature	-40°C to +80°C
Sensor Sealed	Epoxy resin
Installation	Surface or buried installation
Cable Length	5 meters

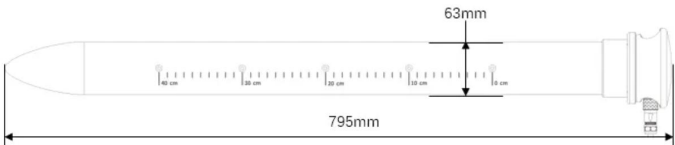


Multi-Depth Soil Moisture, Temp & EC Sensor

SKU [101990982](#)

An IP68 RS485 multi-depth soil moisture, temperature, and EC sensor for soil monitoring and agricultural greenhouses. It measures at 10cm, 20cm, 30cm, and 40cm depths and integrates with Sensor Hub 4G.

DIMENSION



SPECIFICATIONS

Soil Temperature	Range: -30°C to +70°C
	Accuracy: ±0.5°C
	Resolution: 0.1°C
Soil Moisture	Range: 0-70%
	Accuracy: ±3%
	Resolution: 0.1%
Electrical Conductivity	Range: 0-5000 µs/cm
	Custom range: 0-20000 µs/cm
	Accuracy: ±10%
	Resolution: 10 µs/cm

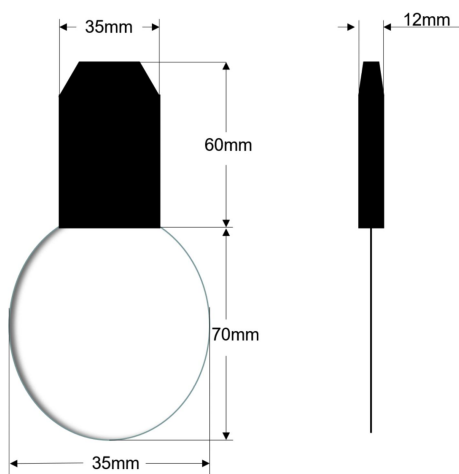
Product Model	S-Multi Soil MTEC-01B
Interface	RS485
Protocol	MODBUS-RTU RS485
Measurement Point	10cm, 20cm, 30cm, 40cm
Measurement Area	Within 10cm outside the surface
Response Time	<100ms
Start-up Time	10 seconds after powering on
Power Supply	12V-24V DC
Current Consumption	12V / 40mA; 24V / 20mA
Operating Temperature	-10°C to +55°C
IP Rating	IP68
Cable Length	10 meters
Device Weight	1505g

Leaf Wetness & Temperature Sensor

SKU [314990737](#) [314990738](#)(with waterproof connector)

An IP68 RS485 leaf wetness and temperature sensor shaped to simulate a real leaf surface. It measures leaf wetness and temperature for pest control, irrigation management, and crop health monitoring.

DIMENSION



SPECIFICATIONS

Leaf Wetness Measurement	Range: 0-100%
	Resolution: 0.1%
	Accuracy: 5%
Temperature Compensation	Range: -40°C to +80°C
	Resolution: 0.1°C
	Accuracy: ±0.5°C

Product Model	S-YM-01A/S-YM-01B
Output Interface	RS485 Modbus-RTU
Power Supply	3.6-30V DC
Power Consumption	6mA at 24V DC
Measurement Technique	FDR
IP Ratings	IP68
Operating Temperature	-40°C to +85°C
Sensor Sealed	Epoxy resin
Installation	Mounting kit
Cable Length	2 meters
Dimension	65 x 13 x 145mm



Air Temperature & Humidity Sensor MODBUS RS485

SKU [101990881](#) [101990882\(with waterproof connector\)](#)

An industrial RS485 air temperature and humidity sensor for smart city, smart agriculture, and environmental monitoring applications. It supports MODBUS RS485 and multiple installation methods.

DIMENSION



SPECIFICATIONS

Product Model	S-TH-01A/S-TH-01B
Signal Output	RS485 Modbus Protocol
Power Supply	3.6-30V DC
Current Consumption	4mA at 24V DC
Humidity Measurement Range	0-100% RH; Resolution: 0.01%; Accuracy: $\pm 3\%$ RH
Temperature Measurement Range	-40°C to +80°C; Resolution: 0.01°C; Accuracy: $\pm 0.3^\circ\text{C}$
IP Rating	IP54
Operating Temperature	-40°C to +85°C
Installation Methods	Wall-mounted installation and tube installation
Cable Length	2 meters
Connection Methods	Aviation connector and hook-up wire

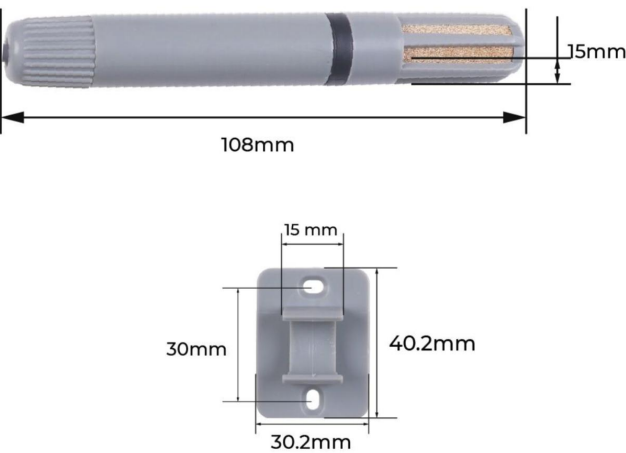


Air Temp, Humidity & Pressure Sensor MODBUS RS485

SKU [101991101](#)

An IP56 RS485 sensor for air temperature, humidity, and barometric pressure. It supports smart agriculture, weather monitoring, evapotranspiration calculation, mold prevention, and related applications.

DIMENSION



SPECIFICATIONS

Product Model	S-THP-01A
Signal Output	RS485 Modbus Protocol
Power Supply	4.5-18V DC
Encapsulation	Standard (ABS + copper sintering filter)
Humidity Measurement Range	0-100% RH; Resolution: 0.01%; Accuracy: ±1.0% RH
Temperature Measurement Range	-40°C to +125°C; Resolution: 0.01°C; Accuracy: ±0.1°C
Barometric Pressure Range	300-1100 hPa; Resolution: 0.1hPa
Barometric Pressure Accuracy	±0.15hPa relative; ±0.1hPa absolute
IP Rating	IP56
Operating Temperature	-40°C to +80°C
Installation Methods	Wall mounting or pipe flange insertion
Cable Length	2 meters

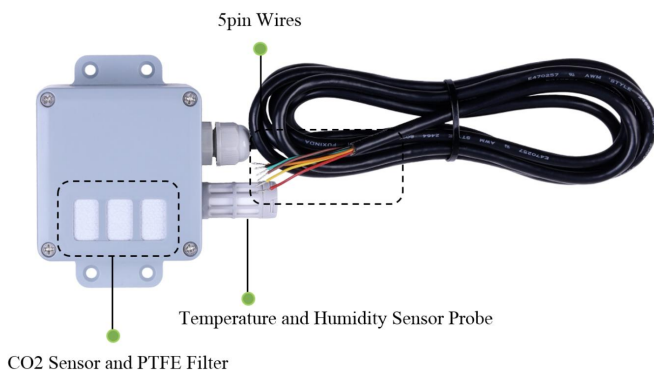
SenseCAP CO2, Temperature & Humidity Sensor with RS485 & SDI-12



SKU [101991028](#) [101991029](#)(with waterproof connector)

The CO2, temperature, and humidity sensor supports Modbus-RTU/ASCII RS485 and SDI-12 communication protocols with built-in calibration functionality. Compact for greenhouses, cities, poultry farms, transportation stations, and other environments where CO2 levels need to be monitored.

STRUCTURE



SPECIFICATIONS

Carbon Dioxide	Range: 0-10,000ppm
	Accuracy: $\pm(50\text{ppm}+3\%\text{MV})$
	Resolution: 1ppm
Temperature	Range: -40°C to +85°C
	Accuracy: $\pm 0.2^\circ\text{C}$
	Resolution: 0.01°C
Humidity	Range: 0-100%RH
	Accuracy: $\pm 1.8\%\text{RH}$
	Resolution: 0.01%RH

Product Model	S-CO2-03A/S-CO2-03B
Measurement Items	CO2, Air Temperature, Air Humidity
Supply Voltage	5-24 V
Supporting Protocols	Modbus-RTU RS485; Modbus-ASCII RS485; SDI-12 (v1.4)
IP Rating	IP65 (shade outdoors; avoid long-term direct sunlight and rain)
Operating Temperature	0°C to +50°C (CO2 sensor limitation)
Working Humidity	0-95%RH (no condensation)
Cable Length	2 meters

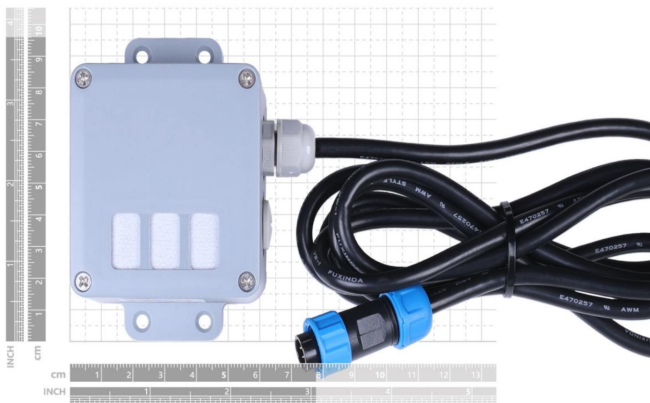


NH3 Sensor MODBUS RS485 Waterproof Connector

SKU [101990862](#)

An industrial-grade IP65 NH3 sensor using solid polymer electrochemical detection. It monitors ammonia, air temperature, and humidity for farming, industrial areas, and meteorological monitoring.

STRUCTURE



SPECIFICATIONS

Ammonia	Range: 0-100 ppm
	Accuracy: typ. ±5% F.S.; max ±10% F.S.
	Resolution: 0.1 ppm
Temperature	Range: -40°C to +50°C
	Accuracy: ±0.5°C
	Resolution: 0.1°C
Humidity	Range: 10-95% RH
	Accuracy: ±5%
	Resolution: 0.1% RH
Performance Reference	Warm-up Time: 5 minutes
	Poll Rate: 1 second
	Response Time: 30 seconds
Ambient Pressure	Atmospheric pressure ±10%
Cable Length	2 meters
Operating Current	6mA max at 5V DC; 3.2mA typical at 12V DC

Product Model	S-NH3-01B
Connector	Waterproof aviation connector
Supply Voltage	5-24V DC (recommended 5V power supply)
Supported Protocol	MODBUS-RTU RS485
IP Rating	IP65 (protect from direct sunlight and long-term rain)
Operating Temperature	-40°C to +50°C (best: 20°C to 35°C)
Operating Humidity	15-95% RH, non-condensing (best: 50% RH)

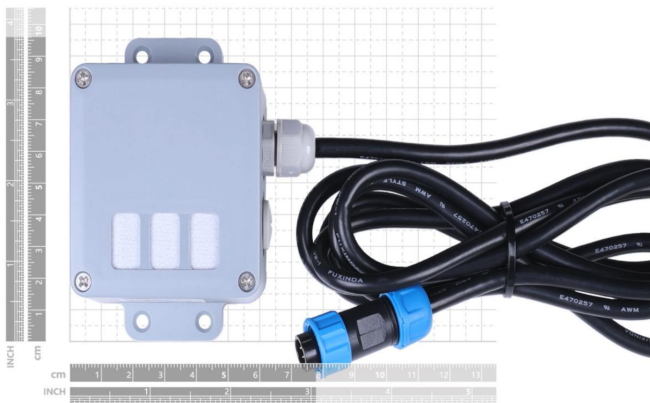


H2S Sensor MODBUS RS485 Waterproof Connector

SKU [101990863](#)

An IP65 RS485 H2S sensor for measuring hydrogen sulfide concentration, air temperature, and humidity. It is used in farming, industrial areas, and meteorological monitoring applications.

STRUCTURE



SPECIFICATIONS

H2S	Range: 0-100 ppm (minimum detection limit: 1ppm)
	Accuracy: $\pm 5\%$ F.S.
	Resolution: 0.1 ppm
Temperature	Range: -40°C to +85°C
	Accuracy: $\pm 0.2^{\circ}\text{C}$
	Resolution: 0.1°C
Humidity	Range: 10-95% RH, non-condensing
	Accuracy: $\pm 2\%$
	Resolution: 0.1% RH

Product Model	S-H2S-01B
Connector	Waterproof aviation connector
Supply Voltage	3.3-5.5V DC (recommended 5V power supply)
Supported Protocol	MODBUS-RTU RS485
IP Rating	IP65 (protect from direct sunlight and long-term rain)
Operating Temperature	-40°C to +55°C (best: 20°C to 35°C)
Operating Humidity	15-95% RH, non-condensing (best: 50% RH)
Ambient Pressure	Atmospheric pressure $\pm 10\%$
Cable Length	2 meters
Operating Current	<5mA
Power Consumption	25mW at 5V DC

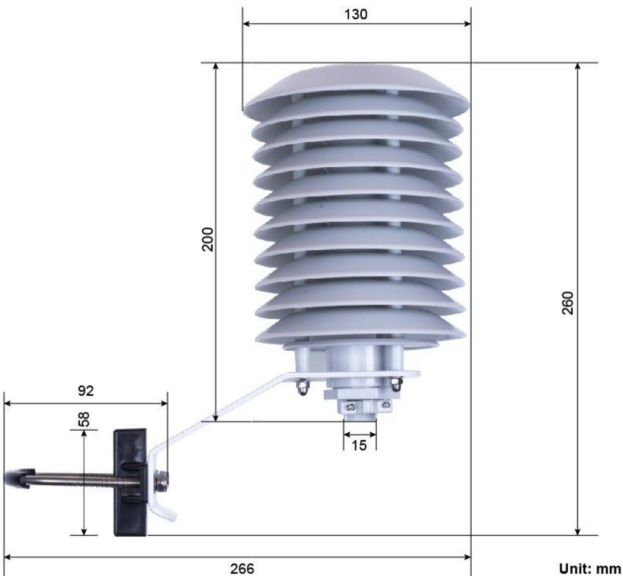


Solar Radiation Shield A10 Sensor Protection

SKU [114992222](#)

A solar radiation shield for protecting outdoor sensors from solar radiation and precipitation. It helps improve data accuracy for temperature, humidity, pressure, and gas sensor deployments.

DIMENSION



SPECIFICATIONS

Product Model	A10
Number of Plates	10
Materials	Engineering plastic plates; stainless steel brackets & screws
Inner Diameter	30mm
Outer Diameter	130mm
Internal Height	135mm
Accessories for Installation	Stainless steel bracket
Operating Temperature	-40°C to +85°C
Weight	517g



Light Intensity Sensor RS485 & 0-2V

SKU [314990739](#) [314990740](#)(with waterproof connector)

An industrial ambient light sensor for measuring illuminance in scientific research, solar farms, greenhouses, weather stations, and field monitoring. It supports MODBUS-RTU RS485 and 0-2V output.

DIMENSION



SPECIFICATIONS

Product Model	S-Light-01A/S-Light-01B
Output Interface	RS485 Modbus-RTU; Analog Voltage 0-2V (output resistance ~0ohm)
Power Supply	3.9-30V DC
Power Consumption	7mA at 24V DC
Illuminance Range	Range: 0-200000 Lux; Accuracy: ±6%; Resolution: 1lux
Direction Error	30° ±3%; 60° ±6%; 80° ±24% (Cosine Characteristics)
IP Ratings	IP66
Operating Temperature	-40°C to +85°C
Installation	Screw hole x 3
Cable Length	2 meters
Dimension	75 x 55 x 58mm

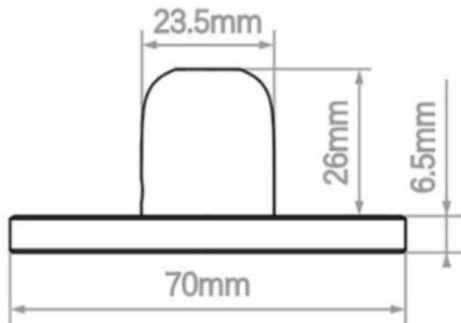


Industrial PAR Sensor MODBUS RS485/0-2.5V

SKU [314990733/314990735\(waterproof\)](#) [*314990734](#)

An IP66 RS485 PAR sensor for real-time photosynthetically active radiation measurement across 400 to 700 nm. Suitable for environmental monitoring and agricultural research, with MODBUS-RTU RS485 data logger integration.

DIMENSION



SPECIFICATIONS

Product Model	S-PAR-02A/S-PAR-02B/PAR-2.5V
Measuring Range	0-2500 $\mu\text{mol}/\text{m}^2\cdot\text{s}$
Response Spectrum	400-700nm
Resolution	1 $\mu\text{mol}/\text{m}^2\cdot\text{s}$
Measurement Accuracy	$\pm 2\%$
Supply Voltage	5V-24V
Interface	RS-485
Protocol	MODBUS-RTU RS485; 0-2.5V voltage output can be customized
Measurement Interval	1s
Linearity	Maximum deviation 1%
Stability	Year offset <2%
Response Time	10 μs
Operating Temperature	-30°C to +75°C
Humidity	0-100%RH, no condensation
Cable Length	2m
Equipment Net Weight	300g

*_outputs an analog 0-2.5V signal proportional to PAR.

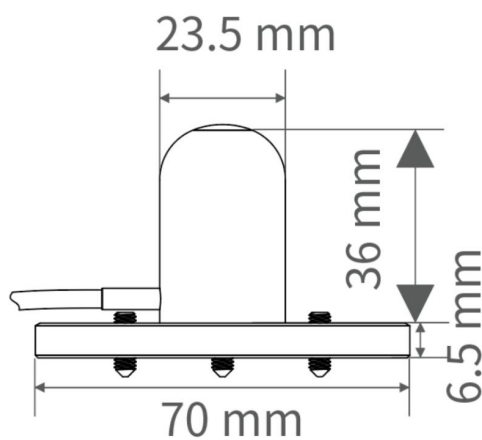


Total Solar Radiation Sensor MODBUS RS485

SKU [101991047](#)

An IP68 RS485 total solar radiation sensor for real-time solar radiation measurement from 300 to 1100 nm. It is ideal for environmental monitoring and agriculture, with MODBUS-RTU RS485 integration.

DIMENSION



SPECIFICATIONS

Product Model	S-ZFS-02B
Product Type	Industrial Total Solar Radiation Sensor
Protocol	MODBUS-RTU RS485
Measuring Range	0-2000 W/m ²
Response Spectrum	300-1100nm
Resolution	1 W/m ²
Accuracy	±3%
Supply Voltage	5 to 24V DC (12V DC typical)
Linearity	Maximum offset 1%
Stability	Change <2% within one year
Warm-up Time	4s
Response Time	10ms
IP Rating	IP68
Operating Temperature	-30°C to +75°C
Application	Weather monitoring; agriculture; environmental monitoring; energy research
Integration	Sensor Hub 4G Data Logger; SenseCAP S2100 LoRaWAN Data Logger

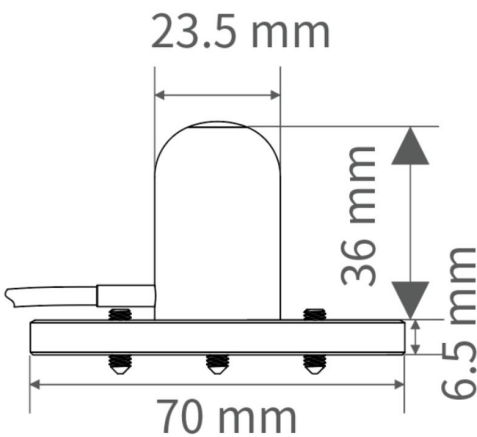


UV Radiation Sensor MODBUS RS485

SKU [101991048](#)

An IP68 RS485 UV radiation sensor for real-time UV radiation measurement from 240 to 395 nm. Ideal for environmental monitoring and agriculture, with MODBUS-RTU RS485 data logger integration.

DIMENSION



SPECIFICATIONS

Product Model	S-ZW-01B
Product Type	Industrial UV Radiation Sensor
Protocol	MODBUS-RTU RS485
Measuring Range	0-200 W/m ²
Response Spectrum	240-395nm
Resolution	1 W/m ²
Accuracy	±3%
Supply Voltage	5 to 24V DC (12V DC typical)
Linearity	Maximum offset 1%
Stability	Change <2% within one year
Warm-up Time	4s
Response Time	200ms
Operating Temperature	-30°C to +75°C



Industrial pH Sensor

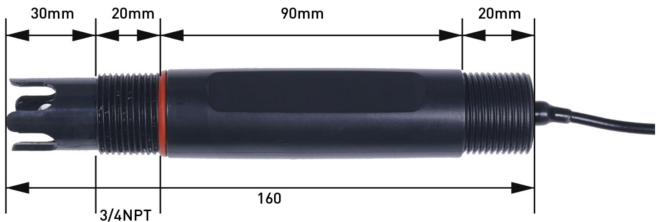
RS485 & 0-2V

Analog Voltage

SKU [101990666](#) [314990622](#)(with waterproof connector)

An IP68 RS485 pH sensor with a 0 to 14 pH range, suitable for soil and water applications such as gardening and swimming pools. It supports MODBUS-RTU RS485 and 0-2V analog voltage output for integration with data loggers and other monitoring devices.

DIMENSION



SPECIFICATIONS

pH Measurement	Range: 0-14 pH
	Accuracy: ± 0.1 pH
	Resolution: 0.01 pH
	High impedance and isolated input
	For solution or semi-solid substrate
Temperature Measurement	Range: -40°C to +80°C
	Accuracy: ± 0.5 °C
	Resolution: 0.1°C

Product Model	S-pH-01A/S-pH-01B
Output Interface	Analog Voltage 0-2V; RS-485 MODBUS-RTU
Power Supply	3.9-30V DC
Power Consumption	35mA at 24V DC
Start-up Time	< 2 seconds
IP Rating	Electrode: IP68; Transmitter: IP65
Operating Temperature	-40°C to +85°C
Installation	Electrode: 3/4" NPT screw threads; Transmitter: mounting hole
Cable Length	Power/signal cable: 2m; Electrode cable: 5m
Dimension	Electrode: diameter 30mm x 160mm; Transmitter: 140 x 65 x 50mm

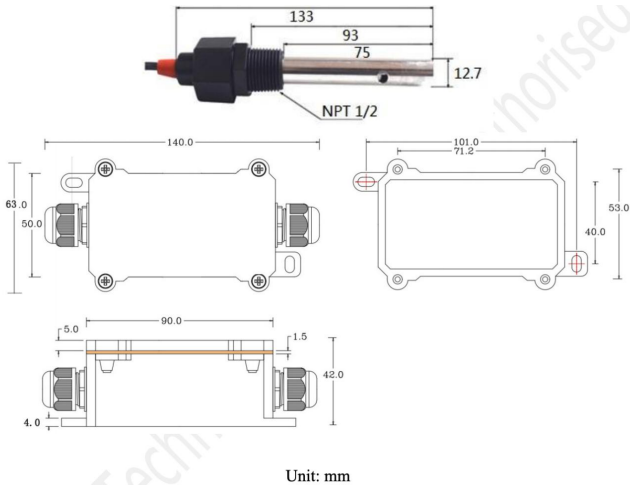


Industrial EC & TDS Sensor RS485 & 0-2V

SKU [314990634](#) [314990742](#)(with waterproof connector)

An IP68 RS485 EC and TDS sensor for water quality monitoring applications such as water processing, irrigation, hydroponics, and environmental monitoring. It supports MODBUS-RTU RS485 and 0-2V analog output.

DIMENSION



SPECIFICATIONS

Product Model	S-EC-01A/S-EC-01B
Output Interface	Analog Voltage 0-2V; RS485 Modbus-RTU
Power Supply	3.9-30V DC
Power Consumption (Idle)	40mA at 24V DC
Power Consumption (Max)	80mA at 24V DC
Start-up Time	< 2 seconds
IP Ratings	Electrode: IP68; Transmitter: IP65
Operating Temperature	-40°C to +85°C
Installation	Electrode: 1/2" NPT screw threads; Transmitter: mounting hole
Cable Length	Power/signal cable: 2m or custom; Electrode cable: 10m
Dimension	Electrode: 1/2" NPT screw threads; Transmitter: 128 x 70 x 42mm

EC Measurement	Isolated sensor input; Range: 0-20000us/cm
	Resolution: 0-10000us/cm, 10us/cm; 10000-20000us/cm, 50us/cm
	Accuracy: 0-10000us/cm, ±3%; 10000-20000us/cm, ±5%
	EC temperature compensation: 0-50°C
Temperature Measurement	Range: -40°C to +80°C
	Resolution: 0.1°C
	Accuracy: ±0.5°C

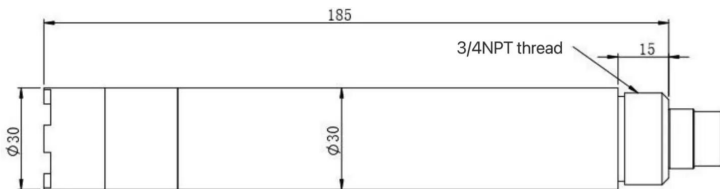


Dissolved Oxygen Sensor MODBUS RS485

SKU [314990633](#)

An RS485 Modbus dissolved oxygen sensor based on fluorescence quenching. It measures dissolved oxygen in water for aquaculture, wastewater treatment, water quality monitoring, and related applications.

DIMENSION



SPECIFICATIONS

Product Model	S-RJY-01
Measurement Range	0-20.00mg/L (0-200% saturation, 25°C)
Accuracy	±2% F.S.; ±0.3°C
Resolution	0.01mg/L; 0.1°C
Calibration	Two-point calibration
Temperature Compensation	Automatic temperature compensation (Pt1000)
Output	RS485 (Modbus/RTU)
Working Conditions	0°C to +50°C; <0.2MPa
Storage Temperature	-5°C to +65°C
Material	PC, stainless steel
Cable Length	5 meters
Power Consumption	0.3W at 12V
Power Supply	12-24V DC (typical 12V DC)
IP Rating	IP68

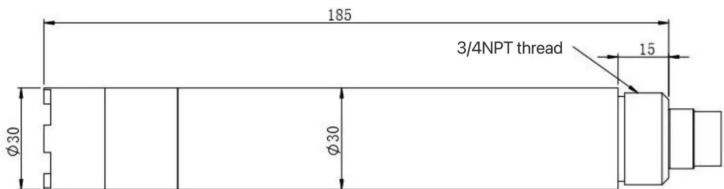


Turbidity Sensor MODBUS RS485 Water Quality

SKU [101990793](#)

An industrial turbidity sensor using scattering light measurement for water quality monitoring. It supports RS485 Modbus/RTU, automatic temperature compensation, and IP68 protection for long-term field use.

DIMENSION



SPECIFICATIONS

Product Model	S-DTS210-01B
Power	12-24V DC (typical 12V DC); 0.3W at 12V
Measurement Principle	Scattering light
Measurement Range	0-1000.0NTU
Resolution	0.1NTU / 0.1°C
Accuracy	±5% F.S.; ±0.3°C
Calibration Method	Two-point calibration
Temperature Compensation	Automatic temperature compensation (Pt1000)
IP Ratings	IP68
Operating Temperature	0°C to +50°C; <0.2MPa
Storage Temperature	-5°C to +65°C
Installation	Immersion installation, 3/4" NPT thread
Cable Length	10 meters



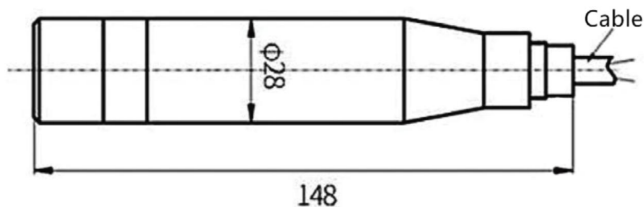
Liquid Level Sensor

0.5-4.5V Output/MODBUS

SKU [314990619](#) [101990860](#) (with waterproof connector)

A liquid level sensor for monitoring water level, oil level, and mildly corrosive liquids. Built with stainless steel and insulated rubber, it is IP68 rated for harsh environments and supports 0.5-4.5V transmission output/MODBUS.

DIMENSION



SPECIFICATIONS

Product Model	S-LL-01A/S-YW-01B(RS485)
Product Type	Liquid Level Sensor
Measurement Range	0-5 meters
Output Signal	0.5-4.5V/ RS485 MODBUS
Power Supply	5V DC/with Sensor Hub
Accuracy	±0.25% F.S
Zero Temp Drift	±0.03% F.S/°C
Sensitivity Temp Drift	±0.03% F.S/°C
Long-term Stability	≤0.2% F.S/year
Response Time	5ms (≤90% F.S)
Measurement Liquid	Slight corrosive liquid, water, edible oil, etc.
Overload Capacity	200% F.S
Compensation Temperature	-10°C to +70°C
Medium Temperature	-40°C to +80°C
Storage Temperature	-40°C to +85°C
Material	304 stainless steel shell; 316L stainless steel core; special rubber-insulated cable
IP Rating	IP68
Device Weight	670g
Certifications	CE, FCC, RoHS

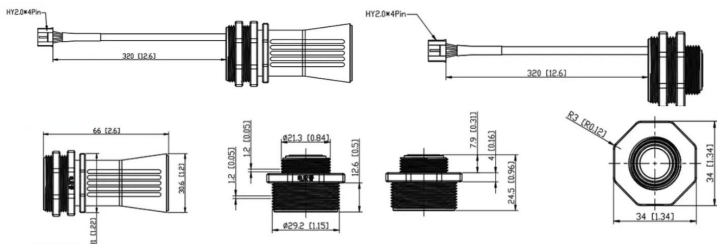


Ultrasonic Level Sensor 750cm RS485

SKU [101991041](#)

A high-precision ultrasonic distance sensor with a 28-750cm measuring range when used with the bell-mouth. It supports sewer and water level monitoring, smart trash systems, robot avoidance, and automatic control.

DIMENSION



SPECIFICATIONS

Product Model	DYP-A01
Accuracy	$\pm(1 + S * 0.3\%)$
Resolution	1mm
Blind Zone Distance	0-28cm
Measurement Range (w/o bell-mouth)	28-450cm
Measurement Range (with bell-mouth)	28-750cm
Beam Angle (w/o bell-mouth)	--
Beam Angle (with bell-mouth)	$\approx 40^\circ$
Operating Voltage	5-12V
Average Current	<10mA
Output Method	RS485 Output
IP Rating	IP67
Working Temperature	-15°C to +60°C



Ultrasonic Level Sensor 500cm RS485

SKU [101991042](#)

A high-precision ultrasonic distance sensor with a 25-500cm measuring range. It supports horizontal ranging, smart trash can systems, robot avoidance, and automatic control applications.

DIMENSION



SPECIFICATIONS

Product Model	DYP-A12
Range	25-500cm
Accuracy	$\pm(1 + S * 0.3\%)$
Resolution	1mm
Blind Area Distance	0-25cm
Detection Angle	$\approx 21^\circ$
Operating Voltage	3.3-24V
Average Current	<10mA
Quiescent Current	15-5000uA
Output Method	RS485 Output
IP Rating	IP67
Working Temperature	-15°C to +60°C

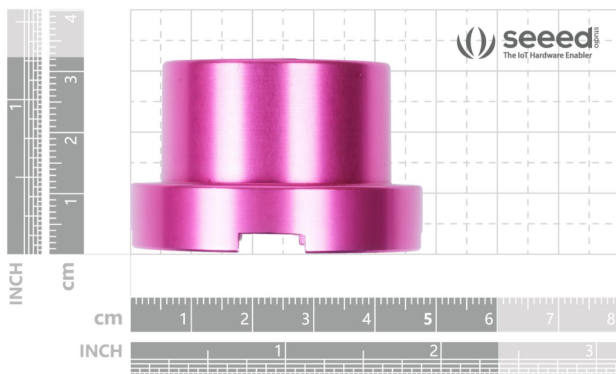


Water Leak Detector GPIO Output

SKU [314990618](#)

An IP66 GPIO water leak detector for monitoring water leakage in kitchens, power distribution rooms, warehouses, and similar environments. It provides relay signal output and can be used with data loggers, PLCs, displays, and other water detection systems.

DIMENSION



SPECIFICATIONS

Product Model	S-WL-01A
Product Type	Water Leak Detector
Protocol	GPIO
Power Supply	5V
Operating Current	< 30mA
Quiescent Current	< 10mA
Output Signal	Wet: relay connected; Dry: relay open
Relay Load	3A 250V AC / 3A 30V DC
Response Time	< 50ms
Measurement Medium	Water
Operating Temperature	-5°C to +60°C
IP Rating	IP66
Cable Length	2 meters
Device Weight	200g

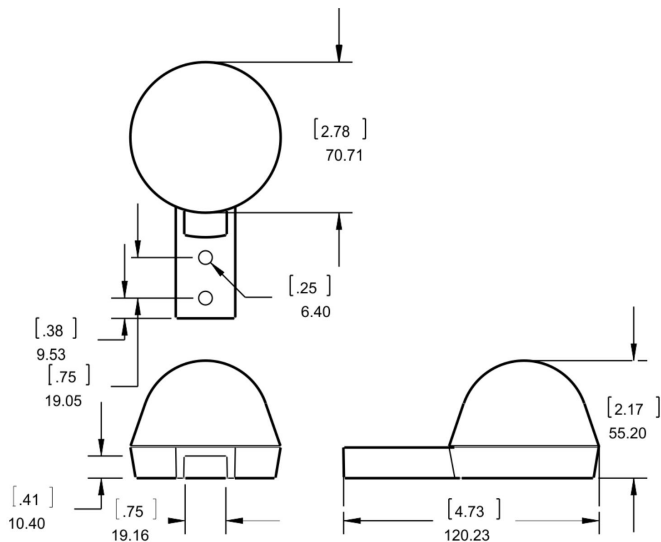


Optical Rain Gauge RG-9 Rain Sensor

SKU [101990760](#)

An industrial optical rain gauge that detects raindrop size and reports rain intensity. It is easy to install and maintenance-free for weather studies, hydrology, agriculture, and rainfall monitoring applications.

DIMENSION



SPECIFICATIONS

Product Model	RG-9
Input Voltage	5-15 VDC on J1, reverse polarity protected to 50V; or 3.3VDC through pin 8 on J2
Current Drain	110 μ A nominal (no outputs on, dry); 2-4 mA when raining
Output	NPN open collector output, 500 mA / 80V / 300mW max
Operating Temperature	-40°C to +60°C (will not detect rain when freezing)
DIP Selectable Sensitivity	Rain Drops: Very light, Medium, Heavy
RS232 Port	3.3V
Supported Baud Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600

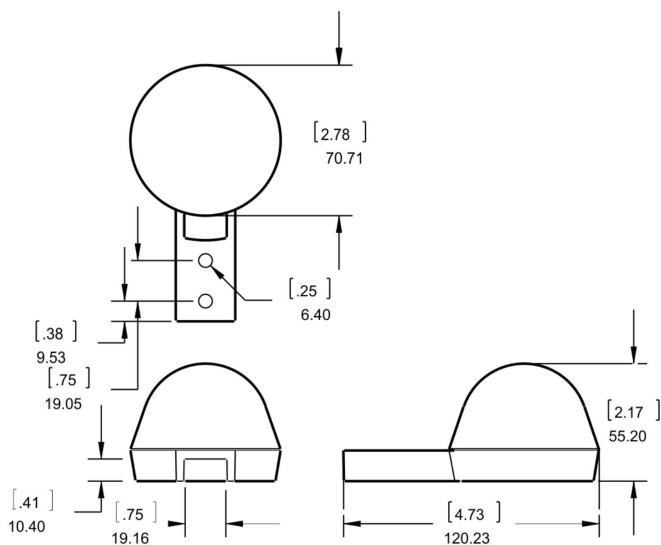


Optical Rain Gauge RG-15 Rain Sensor

SKU [114992321](#)

An industrial optical rain gauge that measures rainfall volume and intensity accurately and reliably. It is easy to install and maintenance-free for weather studies, hydrology, agriculture, and rainfall monitoring.

DIMENSION



SPECIFICATIONS

Product Model	RG-15
Nominal Accuracy	$\pm 10\%$
Input Voltage	5-15 VDC; 50V surge on J1; reverse polarity protected to 50V; or 3.3VDC through pin 8 on J2
Current Drain	110 μ A nominal (no outputs on, dry); 2-4 mA when raining
Output	NPN open collector output, 100 mA / 80V max
Operating Temperature	-40°C to +60°C (will not detect rain when freezing)
Output Resolution	0.01in / 0.2mm or 0.001in / 0.02mm
RS232 Port	3.3V
Supported Baud Rates	1200, 2400, 4800, 9600, 19200, 38400, 57600

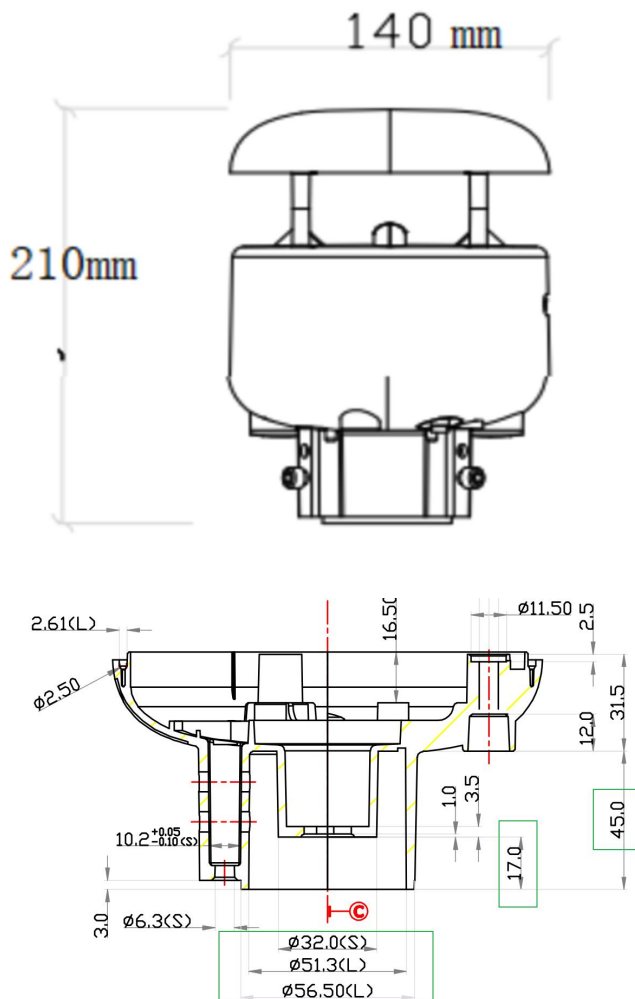
SenseCAP S200 Wind Speed & Direction Sensor

SKU [101991044](#)

An IP66 ultrasonic wind speed and direction sensor for harsh outdoor environments such as agriculture and smart cities. With no moving parts, it delivers reliable measurements and supports RS485 MODBUS-RTU and SDI-12 integration.



DIMENSION



SPECIFICATIONS

Product Model	S200
Parameters Measured	Wind speed, wind direction
Protocol	RS485 (MODBUS-RTU) / SDI-12
Power Supply	12V-24V; 24V heating power supply
Cable Length	3m
Operating Temp & Humidity	-40°C to +85°C; 0-100%RH
IP Rating	IP66
Device Weight	2kg
Wind Speed Range	0-60m/s standard; 0-75m/s extended; up to 80m/s withstand
Wind Speed Accuracy	±0.3m/s (≤10m/s); ±3% (10-50m/s); ±5% (>50m/s)
Wind Speed Resolution	0.1m/s
Wind Direction Range	0-360°
Wind Direction Accuracy	±3.0°
Wind Direction Resolution	0.1°
Wind Sensor Design	Ultrasonic, no moving parts
Applications	Agriculture, smart cities, outdoor monitoring

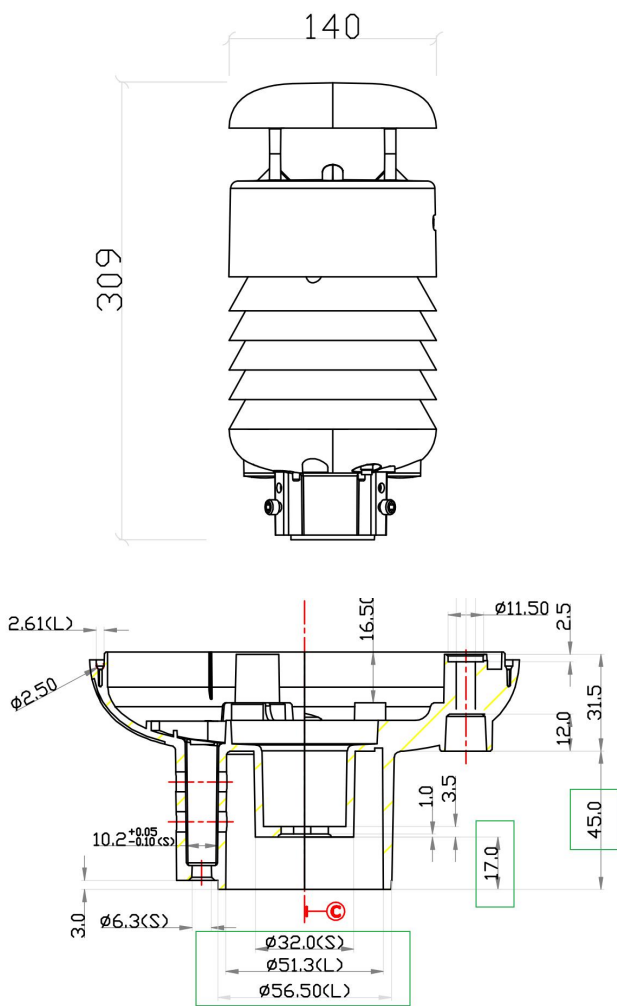


SenseCAP S500 5-in-1 Compact Weather Station

SKU [101991021](#)

An IP66 compact weather station measuring air temperature, relative humidity, barometric pressure, wind speed, and wind direction in one sensor. Ultrasonic wind measurement and RS485 / SDI-12 support make it ideal for demanding outdoor use.

DIMENSION



SPECIFICATIONS

Product Model	S500
Parameters Measured	Temperature, humidity, pressure, wind speed & direction
Protocol	RS485 (MODBUS-RTU) / SDI-12
Power Supply	12V-24V; 24V heating power supply
Cable Length	3m
Operating Temp & Humidity	-40°C to +85°C; 0-100%RH
IP Rating	IP66
Air Temperature	-40°C to +85°C; $\pm 0.1^{\circ}\text{C}$; resolution 0.01°C
Air Humidity	0-100%RH; $\pm 1.5\%\text{RH}$; resolution 0.01%RH
Barometric Pressure	300-1250hPa; $\pm 50\text{Pa}$; resolution 10Pa
Wind Speed Range	0-60m/s standard; 0-75m/s extended; up to 80m/s withstand
Wind Speed Accuracy	$\pm 0.3\text{m/s}$ ($\leq 10\text{m/s}$); $\pm 3\%$ (10-50m/s); $\pm 5\%$ ($> 50\text{m/s}$)
Wind Speed Resolution	0.1m/s
Wind Direction Range	0-360°
Wind Direction Accuracy	$\pm 3.0^{\circ}$
Wind Direction Resolution	0.1°

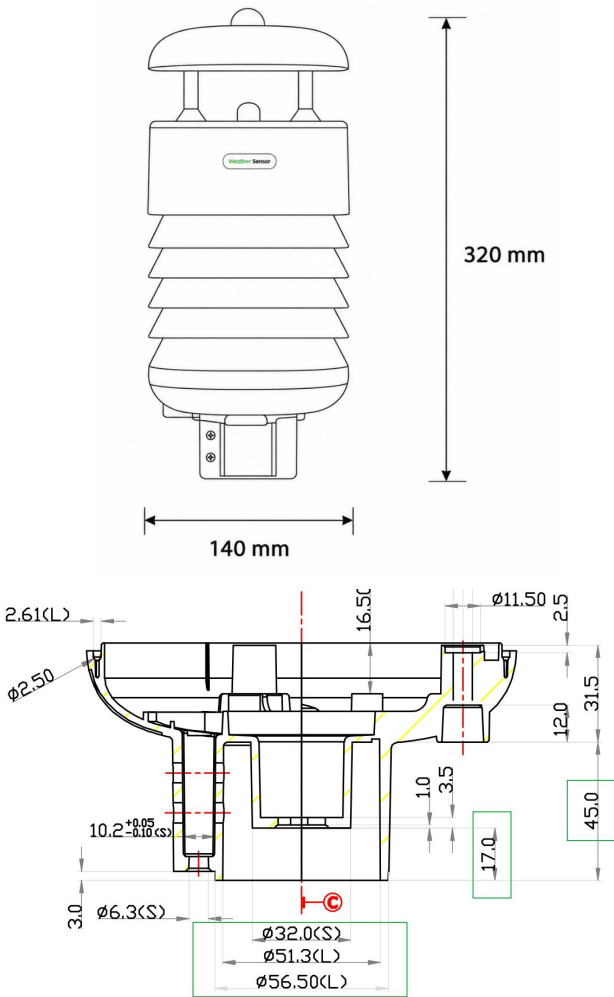


SenseCAP S600-A 6-in-1 Compact Weather Station

SKU [101991232](#)

An IP66 6-in-1 compact weather station measuring temperature, humidity, pressure, light, ultrasonic wind speed, and wind direction. RS485, SDI-12, and ASCII interfaces with thermostatic heating support reliable outdoor, agriculture, and smart city deployments.

DIMENSION



SPECIFICATIONS

Product Model	S600-A
Parameters Measured	Temp, humidity, pressure, light, wind speed & direction
Protocol	RS485 (MODBUS-RTU) / SDI-12 / ASCII
Interface	M12 connector
Power Supply	12V-24V; 24V heating power supply
Power Consumption	0.4W; heating 21W
Cable Length	3m
Operating Temp & Humidity	-40°C to +85°C; 0-100%RH (no condensation)
IP Rating / Weight	IP66; 1470g
Dimension	140 x 140 x 320mm
Air Temperature	-40°C to +85°C; ±0.1°C; resolution 0.01°C
Air Humidity	0-100%RH; ±1.5%RH; resolution 0.01%RH
Barometric Pressure	300-1250hPa; ±50Pa; resolution 10Pa
Wind Speed	0-60m/s std.; ±0.3m/s (≤10m/s); resolution 0.1m/s
Wind Direction	0-360°; ±3.0°; resolution 0.1°
Light Intensity	0-200,000Lux; ±5%; resolution 5Lux

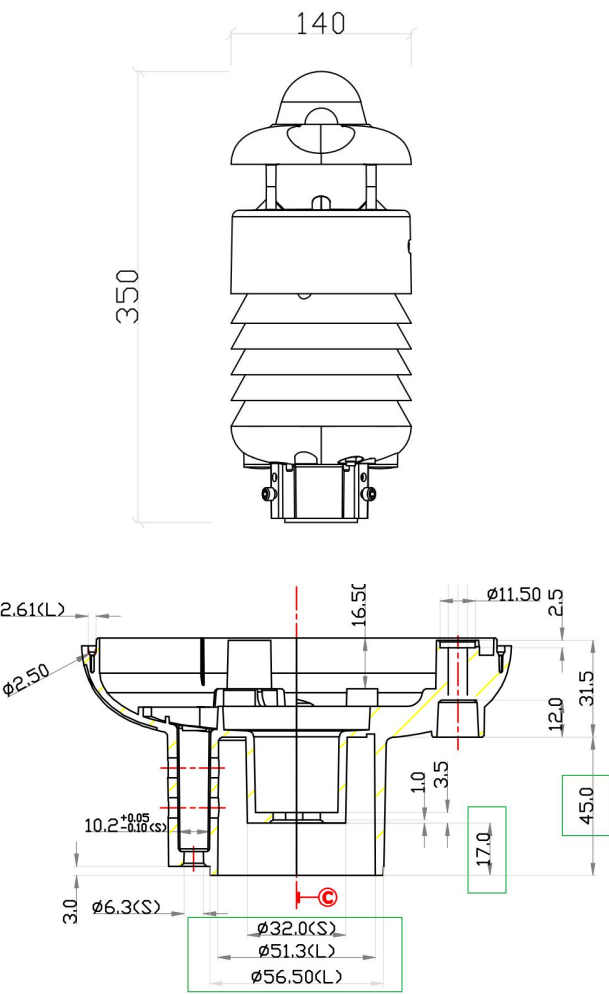


SenseCAP S700 7-in-1 Compact Weather Station

SKU [101991022](#)

An IP66 7-in-1 compact weather station measuring temperature, humidity, pressure, light, optical rainfall, wind speed, and wind direction. Ultrasonic wind sensing and RS485 / SDI-12 support provide reliable monitoring for agriculture, smart cities, and outdoor deployments.

DIMENSION



SPECIFICATIONS

Product Model	S700
Parameters Measured	Temp, humidity, pressure, light, rain, wind speed & direction
Protocol	RS485 (MODBUS-RTU) / SDI-12
Power Supply	12V-24V; 24V heating power supply
Cable Length	3m
Operating Temp & Humidity	-40°C to +85°C; 0-100%RH
IP Rating	IP66
Device Weight	2kg
Air Temperature	-40°C to +85°C; $\pm 0.1^{\circ}\text{C}$; resolution 0.01°C
Air Humidity	0-100%RH; $\pm 1.5\%\text{RH}$; resolution 0.01%RH
Barometric Pressure	300-1250hPa; $\pm 50\text{Pa}$; resolution 10Pa
Wind Speed	0-60m/s; $\pm 0.3\text{m/s}$ ($\leq 10\text{m/s}$); resolution 0.1m/s
Wind Direction	0-360°; $\pm 3.0^{\circ}$; resolution 0.1°
Rainfall Intensity	0-200mm/h; $\pm 10\%$; resolution 0.2mm/h
Light Intensity	0-200,000Lux; $\pm 5\%$ reading; resolution 5Lux
Sensor Design	Optical rainfall; ultrasonic wind, no moving parts

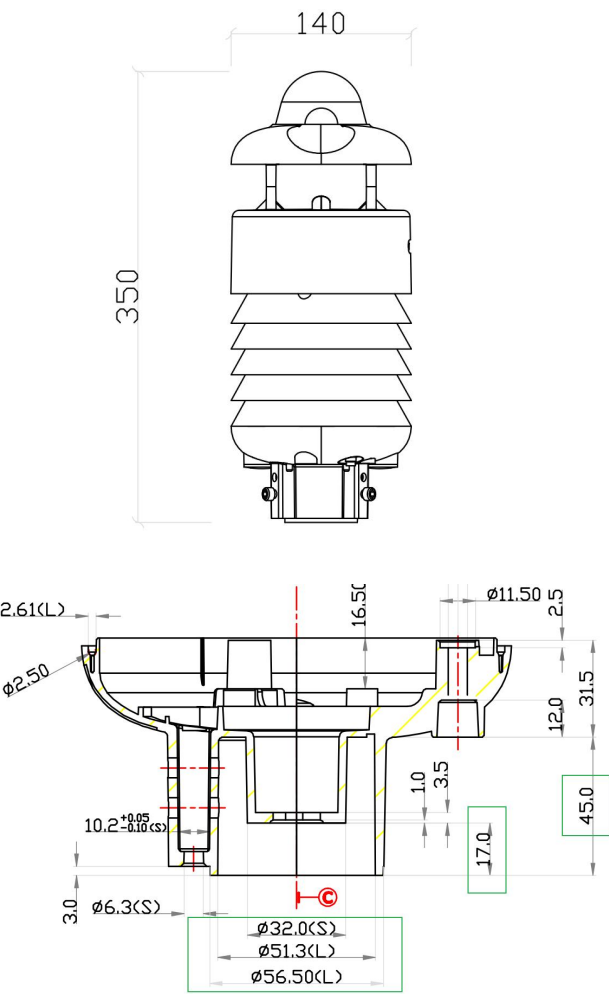


SenseCAP S700-A 7-in-1 Compact Weather Station Radar Rain

SKU [101991050](#)

An IP66 7-in-1 compact weather station measuring temperature, humidity, pressure, light, radar rainfall, wind speed, and wind direction. Ultrasonic wind sensing and RS485 / SDI-12 output support durable monitoring for outdoor, agriculture, and smart city deployments.

DIMENSION



SPECIFICATIONS

Product Model	S700-A
Parameters Measured	Temp, humidity, pressure, light, radar rain, wind speed & direction
Protocol	RS485 (MODBUS-RTU) / SDI-12
Power Supply	12V-24V; 24V heating power supply
Cable Length	3m
Operating Temp & Humidity	-40°C to +85°C; 0-100%RH
IP Rating	IP66
Device Weight	2kg
Air Temperature	-40°C to +85°C; ±0.1°C; resolution 0.01°C
Air Humidity	0-100%RH; ±1.5%RH; resolution 0.01%RH
Barometric Pressure	300-1250hPa; ±50Pa; resolution 10Pa
Wind Speed	0-60m/s; ±0.3m/s (≤10m/s); resolution 0.1m/s
Wind Direction	0-360°; ±3.0°; resolution 0.1°
Rainfall Intensity	0-300mm/h; ±10%; resolution 0.01mm/h
Light Intensity	0-200,000Lux; ±5% reading; resolution 5Lux
Sensor Design	Radar rainfall; ultrasonic wind, no moving parts



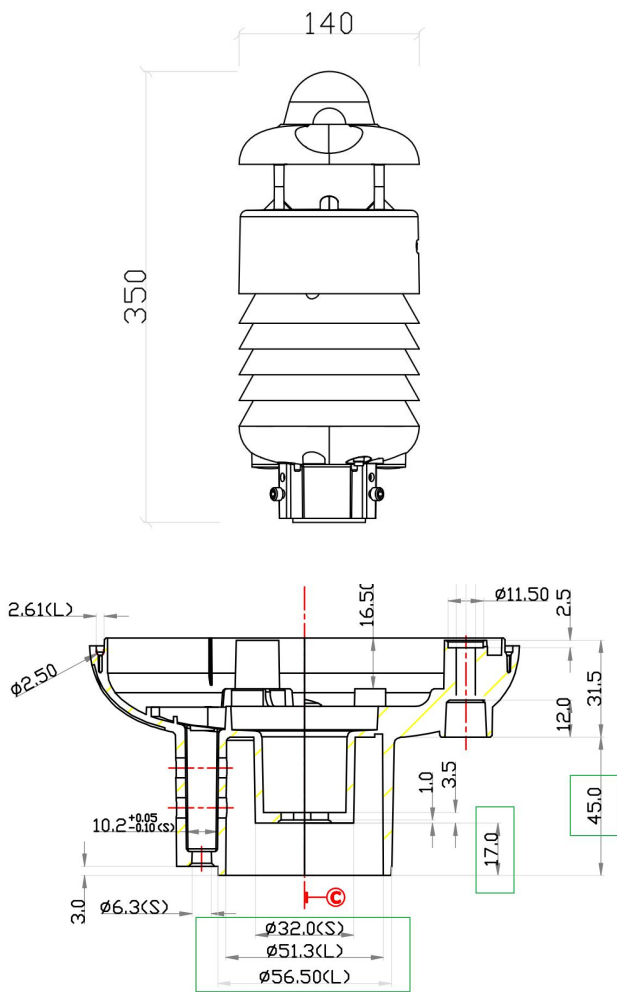
SenseCAP S700-B 7-in-1 Compact Weather Station

Solar Radiation

SKU [101991102](#)

An IP66 7-in-1 compact weather station measuring temperature, humidity, pressure, global solar radiation, sunshine duration, optical rainfall, wind speed, and wind direction. RS485 / SDI-12 / ASCII output supports outdoor, agriculture, and smart city monitoring.

DIMENSION



SPECIFICATIONS

Product Model	S700-B
Parameters Measured	Temp, humidity, pressure, solar radiation, sunshine, rain & wind
Protocol / Interface	RS485 (MODBUS-RTU) / SDI-12 / ASCII; M12 connector
Power & Cable	12V-24V; heating 21W; 3m cable
Operating Env.	-40°C to +85°C; 0-100%RH (no condensation)
IP / Weight / Size	IP66; 1580g; 140 x 140 x 350mm
Air Temperature	-40°C to +85°C; $\pm 0.1^{\circ}\text{C}$; resolution 0.01°C
Air Humidity	0-100%RH; $\pm 1.5\%\text{RH}$; resolution 0.01%RH
Barometric Pressure	300-1250hPa; $\pm 50\text{Pa}$; resolution 10Pa
Rainfall Intensity	0-200mm/h; $\pm 10\%$; resolution 0.2mm/h
Wind Speed	0-60m/s; $\pm 0.3\text{m/s}$ ($\leq 10\text{m/s}$); resolution 0.1m/s
Wind Direction	0-360°; $\pm 3.0^{\circ}$; resolution 0.1°
Global Solar Radiation	0-2000W/m ² ; $\pm 3\%$; resolution 1W/m ²
Sunshine Duration	0-6553.5h; $\pm 3\%$; resolution 0.1h
Response Spectrum	Solar radiation & sunshine: 300-1100nm
Sensor Design	Optical rainfall; ultrasonic wind; photoelectric radiation

SenseCAP S700-C 7-in-1 Compact Weather Station

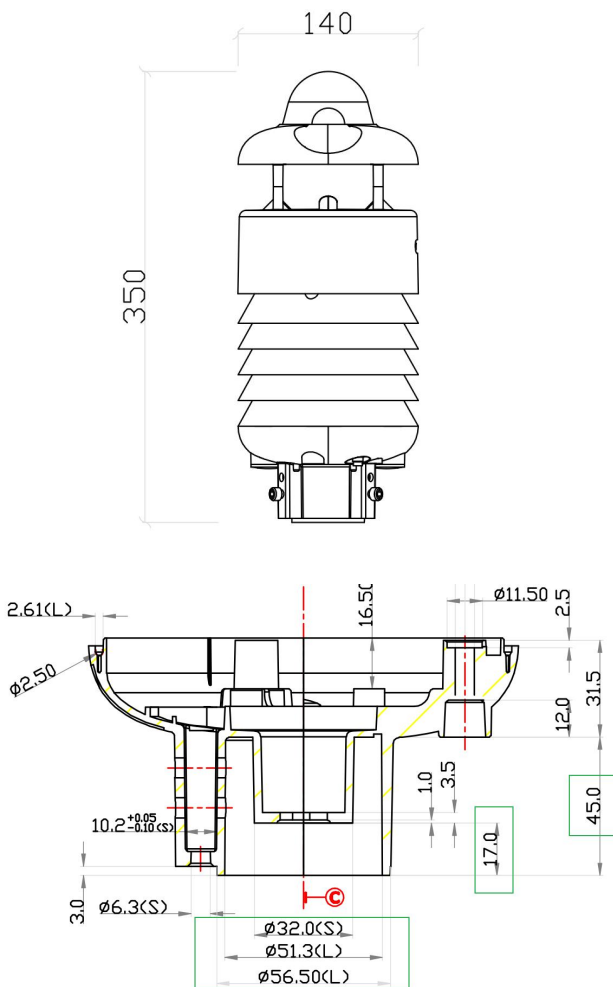
Solar Radiation & Radar Rain

SKU [101991141](#)

An IP66 compact weather station measuring temperature, humidity, pressure, global solar radiation, sunshine duration, radar rainfall, wind speed, and wind direction. RS485 / SDI-12 / ASCII output supports reliable outdoor, agriculture, and smart city monitoring.



DIMENSION



SPECIFICATIONS

Product Model	S700-C
Parameters Measured	Temp, humidity, pressure, solar radiation, sunshine, radar rain & wind
Protocol / Interface	RS485 (MODBUS-RTU) / SDI-12 / ASCII; M12 connector
Power & Cable	12V-24V; heating 21W; 3m cable
Operating Env.	-40°C to +85°C; 0-100%RH (no condensation)
IP / Weight / Size	IP66; 1607g; 140 x 140 x 350mm
Air Temperature	-40°C to +85°C; $\pm 0.1^{\circ}\text{C}$; resolution 0.01°C
Air Humidity	0-100%RH; $\pm 1.5\%\text{RH}$; resolution 0.01%RH
Barometric Pressure	300-1250hPa; $\pm 50\text{Pa}$; resolution 10Pa
Rainfall Intensity	0-300mm/h; $\pm 10\%$; resolution 0.01mm/h
Wind Speed	0-60m/s; $\pm 0.3\text{m/s}$ ($\leq 10\text{m/s}$); resolution 0.1m/s
Wind Direction	0-360°; $\pm 3.0^{\circ}$; resolution 0.1°
Global Solar Radiation	0-2000W/m ² ; $\pm 3\%$; resolution 1W/m ²
Sunshine Duration	0-6553.5h; $\pm 3\%$; resolution 0.1h
Response Spectrum	Solar radiation & sunshine: 300-1100nm
Sensor Design	Radar rainfall; ultrasonic wind; photoelectric radiation

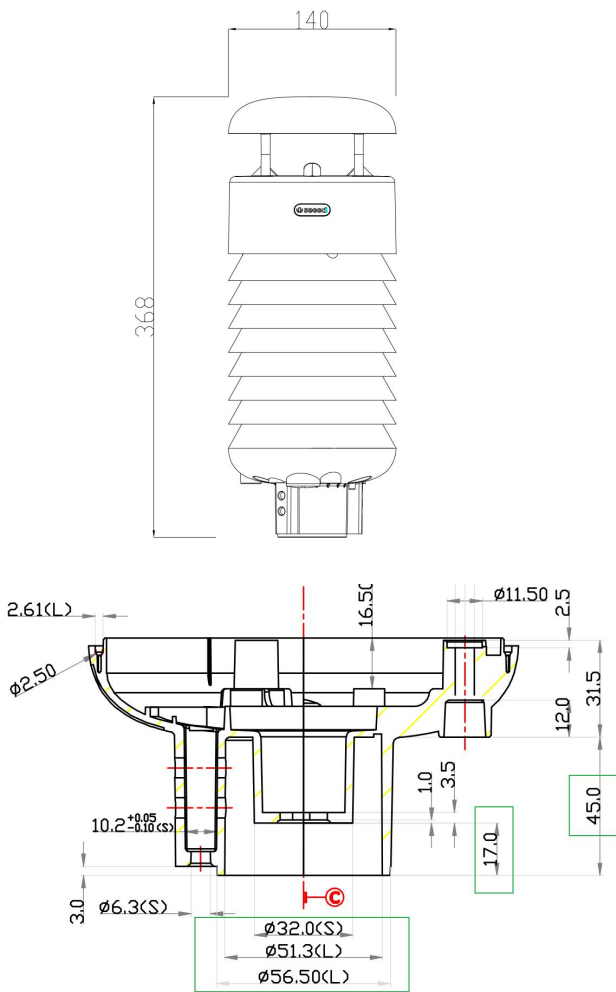


SenseCAP S800 8-in-1 Compact Weather Station

SKU [101991023](#)

An IP66 8-in-1 compact weather station measuring temperature, humidity, pressure, wind speed, wind direction, PM2.5, PM10, and noise. Ultrasonic wind sensing and RS485 / SDI-12 support enable reliable environmental monitoring in demanding outdoor sites.

DIMENSION



SPECIFICATIONS

Product Model	S800
Parameters Measured	Temp, humidity, pressure, wind, PM2.5, PM10 & noise
Protocol	RS485 (MODBUS-RTU) / SDI-12
Power Supply	12V-24V; 24V heating power supply
Cable Length	3m
Operating Temp & Humidity	-40°C to +85°C; 0-100%RH
IP Rating	IP66
Device Weight	2kg
Air Temperature	-40°C to +85°C; $\pm 0.1^{\circ}\text{C}$; resolution 0.01°C
Air Humidity	0-100%RH; $\pm 1.5\%\text{RH}$; resolution 0.01%RH
Barometric Pressure	300-1250hPa; $\pm 50\text{Pa}$; resolution 10Pa
Wind Speed	0-60m/s; $\pm 0.3\text{m/s}$ ($\leq 10\text{m/s}$); resolution 0.1m/s
Wind Direction	0-360°; $\pm 3.0^{\circ}$; resolution 0.1°
PM2.5	0-1000 $\mu\text{g}/\text{m}^3$; $\pm 10\mu\text{g}/\text{m}^3$ or $\pm 10\%$; resolution 1 $\mu\text{g}/\text{m}^3$
PM10	0-1000 $\mu\text{g}/\text{m}^3$; $\pm 15\mu\text{g}/\text{m}^3$ or $\pm 15\%$; resolution 1 $\mu\text{g}/\text{m}^3$
Noise	35-100dB; $\pm 1.5\text{dB}$; resolution 0.1dB

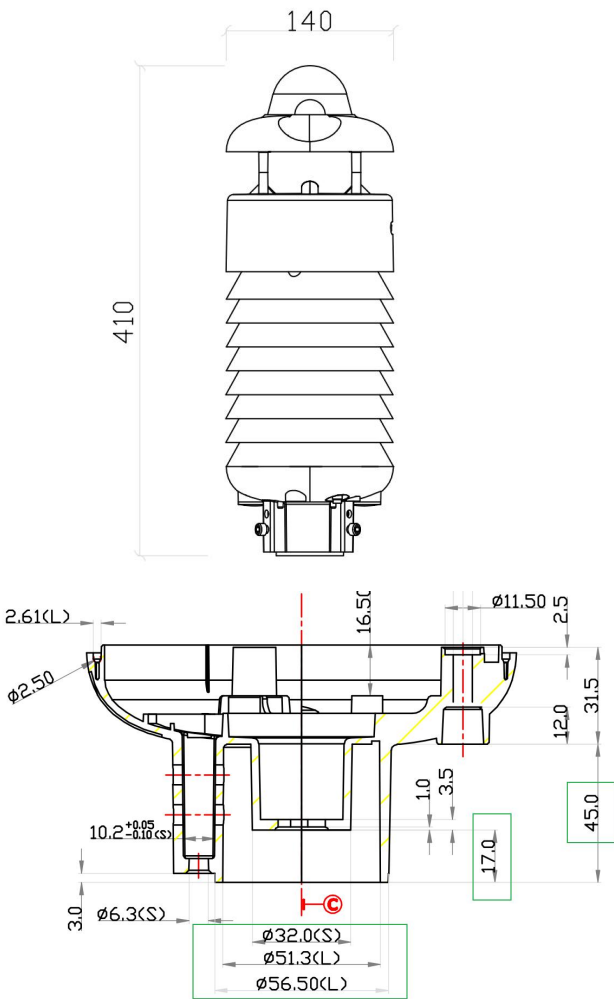


SenseCAP S1000 10-in-1 Compact Weather Station

SKU [101991024](#)

An IP66 10-in-1 compact weather station measuring temperature, humidity, pressure, light, optical rainfall, wind speed, wind direction, PM2.5, PM10, and CO2. RS485 / SDI-12 output supports robust outdoor monitoring for agriculture, cities, and energy sites.

DIMENSION



SPECIFICATIONS

Product Model	S1000
Parameters Measured	Temp, humidity, pressure, light, rain, wind, PM2.5, PM10 & CO2
Protocol	RS485 (MODBUS-RTU) / SDI-12
Power & Cable	12V-24V; 24V heating power; 3m cable
Operating Env.	-40°C to +85°C; 0-100%RH
IP Rating / Weight	IP66; 2kg
Air Temperature	-40°C to +85°C; ±0.1°C; resolution 0.01°C
Air Humidity	0-100%RH; ±1.5%RH; resolution 0.01%RH
Barometric Pressure	300-1250hPa; ±50Pa; resolution 10Pa
Wind Speed	0-60m/s; ±0.3m/s (≤10m/s); resolution 0.1m/s
Wind Direction	0-360°; ±3.0°; resolution 0.1°
PM2.5	0-1000µg/m³; ±10µg/m³ or ±10%; resolution 1µg/m³
PM10	0-1000µg/m³; ±15µg/m³ or ±15%; resolution 1µg/m³
Rainfall Intensity	0-200mm/h; ±10%; resolution 0.2mm/h
Light Intensity	0-200,000Lux; ±5% reading; resolution 5Lux
CO2	400-10000ppm; ±(30+3% reading) or ±10%; resolution 1ppm



SenseCAP S2120 8-in-1 LoRaWAN Weather Sensor

SKU [101990961](#)

A LoRaWAN 8-in-1 weather sensor collecting air temperature, humidity, pressure, wind speed and direction, rainfall, light intensity, and UV index. Solar-assisted battery power, Bluetooth setup, and remote management support low-maintenance deployments.

DIMENSION

SPECIFICATIONS

Product Model	S2120
Parameters Measured	Temp, humidity, pressure, wind, rain, light & UV
Wireless Protocol	LoRaWAN v1.0.3 Class A; Bluetooth configuration
Frequency Plans	IN865/EU868/US915/AU915/AS923/KR920/RU864
Power Supply	0.5W solar panel + 3 x AA; optional 6 x AA box
Protection / Weight	Outdoor scenes; 1.5kg
Air Temperature	-40.0 to 80.0°C; ±0.5°C/±0.6°C; resolution 0.1°C
Air Humidity	1-99%RH; ±3%/±4%; resolution 1%RH
Barometric Pressure	540-1100hPa; ±5hPa/±8hPa; resolution 1hPa
Wind Speed	0-50.0m/s; ±0.5m/s or ±10%; resolution 0.1m/s
Wind Direction	0-360°; ±8°; resolution 1°
Rainfall Intensity	0-450mm/h; ±7%; resolution 0.254mm/h
Light Intensity	0-200,000lux; ±5%; resolution 1lux
UV Index	0-16.0; ±10%; resolution 0.1
LoRa Performance	21dBm max TX; -141dBm sensitivity; 2-10km range
Battery Life	Up to 2 years; varies by interval and gateway distance