Sensor and image capture selection reference

Compare location, image, video and sensor requirements, then check measurement and connection conditions.

Updated 11 November 2026 | English

Selection reference - confirm the actual device version and project configuration.

Location, video or sensor data: what does the project need

Match the operating question to the information, devices and connection conditions.

Write the question you need to answer before listing devices. A location, an image, a temperature value and a door-state signal provide different information and require suitable hardware and software arrangements.

Question	Information and checks
Where is the vehicle or asset?	Location, journey and time records. Check power, reporting, network and software.
What happened in this area?	Images or video from the relevant view. Check camera, recording, storage and viewing.
Did temperature or humidity change?	Measurement values. Check range, accuracy conditions, interface, power and receiver.
Did a door or object move?	A state signal. Check sensor version, fitting and a compatible receiver.

Check the type of camera output

The current waterproof serial camera captures and transfers JPEG images using a serial protocol. Continuous-video requirements need a suitable video device and configuration. The word “camera” alone does not identify the recording method.

Match sensors to the receiving device

The temperature/humidity sensor uses RS485 and Modbus-RTU; the Hall-effect door sensor has a wired logic-level output. Confirm receiver support, supply requirements, protocol and the software presentation. A matching interface name alone does not establish complete compatibility.

For example, a transport project may need location to show where the asset is and temperature to show the measured condition. If an unloading-area view is also required, define that camera and viewing requirement separately. This is a requirements example, not a tested customer deployment.

Product information and related pages

WY320 · Multi-Function Vehicle Telematics Unit / Temperature & Humidity Sensor / Hall-Effect Door Sensor / Waterproof Serial Snapshot Camera

Read guide - www.wooyane.com

Temperature accuracy, resolution and operating range

Read the conditions attached to accuracy, update rate, response time and assembled-device ratings.

Temperature sensor specifications answer different questions. Keep the conditions next to each value when comparing devices: a finer data increment does not, by itself, establish a smaller measurement error.

Parameter	Meaning	Documented example
Resolution	How finely the data can be represented.	Temperature/humidity sensor: 0.1°C temperature resolution.
Accuracy and conditions	The error specification under stated conditions.	The same sensor: ±0.5°C at 25°C.
Operating range	The specified environment for the assembled device.	Digital temperature sensor: -40°C to +80°C.
Update and response	Update interval and response to environmental change.	Temperature/humidity updates: 1 s; temperature response: ≤15 s at 1 m/s airflow.

Check the temperature range for the stated accuracy

The digital temperature sensor has an assembled-device operating range of -40°C to +80°C. Its ±0.5°C accuracy is specified over 0°C to +70°C. Record those conditions separately instead of extending that accuracy across the entire operating range.

Use the assembled-device rating

The same source lists a theoretical chip range of -55°C to +125°C. That is not the assembled-device rating. Use the stated complete-device range when selecting the product, including the probe and construction conditions.

Match the measurement to the task

A one-second update interval does not mean the sensor completes its response to every change in one second. State the actual temperature range, changes to identify, acceptable error and receiving device/software. Then compare measurement, supply, output and integration conditions together.

Product information and related pages

Temperature & Humidity Sensor / Digital Temperature Sensor

Read guide - www.wooyane.com