Sensors Argus Works With the Most

Argus can work with most if not all third party sensors for your greenhouse / indoor growing operation. However, there are many sensors that Argus generally works with most frequently. Below is an overview of three sensor categories, what sensor Argus works with most often and what they measure. The three sensor categories are climate sensors, soil sensors and outdoor sensors.

CLIMATE SENSORS

Climate sensors are sensors designed to measure the ambient air temperature and light intensity along with other key climate parameters (see chart below). Normally the sensor hangs above the canopy area in a central location. In some cases one sensor may be adequate but for larger growing operations multiple climate sensors are often desirable to get a more complete set of readings of the conditions in the growth area. In some cases the sensor focuses on just one parameter such as listed below for several light only sensors:

Sensor	Shielded	Aspiration	Temp	RH<60	RH<90	RH<100	Light	CO_2	P_b
TN21			✓						
TN21/S	✓		✓						
Sen-RHT	✓		✓	✓	✓	✓			
Argus Omni RHT	✓	✓	✓	✓					
Argus Omni/C	✓	✓	✓	✓			✓		
Argus Omni/CO_2	✓	✓	✓	✓			✓	✓	
Apogee TS-220	✓	✓	✓	✓	✓				
Apogee Guardian	✓	✓	✓	✓	✓	✓	✓	✓	✓
Apogee SP							✓		
Apogee SQ							✓		
Parline							✓		
Aranet Spectrum							✓		

SOIL SENSORS

Also known as substrate or growing media sensors, soil sensors measure soil temperature, VWC (volumetric water content), and EC (electrical conductivity as affected by the salinity level):

Sensor	Temperature	VWC	EC	Wireless
Meter Group MAS1		✓		
Aroya Teros One	✓	✓	✓	✓
Aranet Wet 150	✓	✓	✓	✓
Aranet Soil Moisture		✓		✓

OUTDOOR SENSORS

Outdoor sensors are commonly referred to as outdoor weather sensors or weather stations. They are used for measuring outdoor influences on the growing environment, particularly greenhouses where outdoor conditions have a significant impact on climate inside the greenhouse.

For example if one wants to change indoor humidity levels, measuring outdoor humidity can help the climate controller determine the best strategy such as heating indoor air and venting or bringing outdoor air in:

Sensor	Temperature	RH	Global Radiation	Rain Detection	Wind Speed	Wind Direction
TITAN Weather Station	✓		✓	✓	✓	✓
Sen-RHT	✓	✓				

Another high priority reason for their use is for damage protection for greenhouses. Wind speed and direction sensors as well as rain detection sensors are often used in Argus Control system's override programs to automatically position vents, curtains, etc. into safe positions to prevent damage to the greenhouse and/or the crop inside.

Outdoor weather sensors (see image at right) are also sometimes used to send data to precisely controlled growing rooms to replicate outdoor conditions in real time.