SMED-1 / Grow Medium-Substrate Sensor

Accurately measuring the moisture or Volumetric Water Content (VWC) within your grow medium (substrate) is now possible using specialized sensors like Croptiva's SMED-1**.** Being able to know for certain how "wet or dry" the root zone currently is, and to be able to track those changes over time is critical in order to achieve the highest yields and quality. The SMED-1 sensor provides the user with a highly-accurate and very cost effective sensor designed to be used in most substrates including Rockwool, Coir, Soil blends and any growing medium / substrate that is not too coarse like Expanded clay. The SMED-1 can be used with the Croptiva SEN-1, **Sentry** and GUARD-1, **Guardian** main controllers.

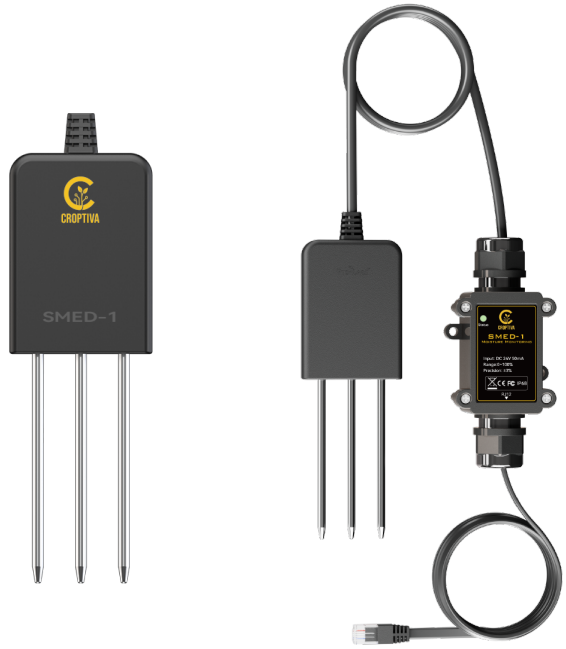
The **SMED-1** sensor provides VWC and temperature readings from the growing substrate. The sensor directly measures the water stored within microscopic pores within the grow medium / substrate. That critical information is used to prevent over-watering, under-watering and negative affects from allowing the root zone to become too warm or too cold. The 24/7 live data coming from the SMED-1 sensor is used within the Croptiva controllers in order to trigger local and remote (SMS) alarms, provide visual graphing to show trends, and specifically for the Guardian controller… to provide direct feedback when using "crop steering programming". Once the user has access to the "hidden" data from within their grow medium, they can then make fine-tuning adjustments to their feeding schedules as their plants growth progresses.

To connect the SMED-1 module, simply connect the small inline sensor module to the RJ12 Sensor / Device port on your Croptiva controller using the provided RJ12 cable and Y-splitters. The inline sensor module comes with a 16ft / 5 meter cable that can be extended. You can replace multiple RJ12 Y-splitters with the UNIVERSAL multi-port RJ12 "powered" hub (RJ-HUB) to provide a centralized wiring "hub" to connect multiple device modules (AND sensors) to your Croptiva main controller. The RJ-HUB and Croptiva's UNIVERSAL expansion ports provide a cleaner and more effective cable connection system.

The SMED-1 features 3 stainless steel probes that allow the sensor to be inserted into you grow medium / substrate "sample" plant. The probe must be installed so that all 3 of the probes are aligned horizontally and positioned 1/3 of the way from the bottom of the container or grow bag. Push the probe tips fully into the sample. For best results, do not disturb or move the sensors once installed.

***Do not install the SMED-1 sensor into the top of the container vertically. Doing so will result in readings that are actually dryer (lower VWC) than the roots have towards the bottom of the container.**

SMED-1 / Specifications



Model	SMED-1 / Moisture (VWC) Sensor
Protection Level	IP66
Probe Dimensions	4.7x1.8x0.4" / 120x45x10mm
Operating Temperature	-40 to 60℃ / -40 to 144℉
Operating Humidity	*NO limit, can be direct buried
Operating Voltage	DC 24V
Power Consumption	≤ 7 watts
VWC Measurement range	0-100%
VWC Accuracy	±2.5% (full scale)
Temp Measurement range	-40 to 60℃ / -40 to 144℉
Temp Accuracy	±0.5℃/ ±0.9℉
Cable type / Connection	RJ12, 6P6C, 6-wire cable
"Sensor" Cable length	5m / 16ft
Certifications	CE, FCC

Contact: support@croptiva.com / 877-607-7770