



HSTI
France

Aix-en-Provence
2025



HydraScout[®]

Product Data Sheet

Description

HydraScout probes use capacitance technology to measure data in the ground. Thanks to this technology the probe reads temperature and moisture at each sensor, providing accurate monitoring of soil water content.

Fully water-resistant

Our HydraScout probes are designed to be watertight thanks to its resin filled body. All the electronics sensors are encapsulated and protected in the resin.

Multi-purpose tool

The probe can be deployed in any soil type, any crops and can be installed on any irrigation system. Each sensor will give you temperature and moisture %VWC (Volumetric Water Content percentage).

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Read a large volume of soil

Thanks to its 38mm diameter it offers a great sphere of influence: roughly of a volleyball size, depending on the soil type. It can be inserted into soil with minimal disruption to your plants' vital root systems.

Read a complete profile

The probe has multiple sensors and therefore is called a “Profile probe”. With one single probe, you can obtain several measures, reading data at each layer of the ground.

Our **HydraScout** profile probe is built with increments of 10 cm (4 inches) between subsequent sensors. The smallest size is **10 cm (4 inches)** and the longest is **150 cm (60 inches)**.

You can customize both the number and placement of sensors along the probe to perfectly match your specific requirements.

Choose your probe length

HydraScout is available in various lengths, from 10 to 150 cm, to suit different soil types and the rooting depth of each crop. Some examples of lengths :

Almond, Apricot	→	150cm / 6 sensors
Olive, Citrus, Hazelnut, Pistachio	→	120cm / 5 sensors
Vine, Apple, Kiwi	→	100cm / 5 sensors
Wheat, Corn, Beets	→	80cm / 5 sensors
Potatoes, Raspberries, Berries	→	60cm / 6 sensors
Oilseed, Melon	→	40cm / 4 sensors
Vegetables	→	30cm / 3 sensors
Strawberries	→	20cm / 2 sensors



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Telemetry

All information is read by a **datalogger** using the **SDI-12** or **RS485** communication protocols. The data logger powers the probe, sends measurement requests, and collects the data to transmit it to the server.

Software

HSTI France offers its decision-making tool, **Odusol**, a digital business component dedicated to soil data analysis and enhancement. We can also provide specific APIs for integration with other platforms or software.

Warranty

You can be sure that you will enjoy 5-year warranty with your **HydraScout** probe. The first two years are fully covered at 100% under our legal warranty and the next 3 years with inscription in our online platform.

No maintenance is required for our probes. It can be left in the ground for many seasons. HydraScout probes are also easy to install. (See on : <https://www.hydrascout.co/produits/>).

Notes section

Technical data sheet **HydraScout®**

Diameter	38mm	
Data type per sensor	Moisture Temperature	Volumetric Water Content Température en °C/°F
Reading levels	10cm (or multiple of 10cm) between each sensors	
Moisture readings	Method Technology Range Resolution Accuracy	Volumetric Water Content Capacitance From 0 à 100% 0,1°C +/-3.0% VWC (EC<2mS/cm)
Temperature readings	Technology Range Resolution Accuracy	Electronic Thermometer From -40°C à +70°C 0,1°C +/-0,5°C
Output signal	SDI-12 or RSS485	
Power	De 5V à 24 Volt DC	
Cable lenght	5 meters (standard) or customizable	
Connexion wires	3 wires (SDI-12) 5 ou 6 wires (RS485)	Red/Brown = power Green/Yellow = GND White/Blue = Data Specific wiring
Datalogger compatibility	HydraScout probe are compatible with any data loggers with SDI-12 & R485 interface (GSM, LoRa, SigFox, NB-IoT, LTE-M, Satelite, etc.).	