



HSTI
France

Aix-en-Provence
2026

HydraConnect Dataproduct

Description

HydraConnect is a datalogger that collects and transmits data from our HydraScout and HydraSolo probes. Robust and versatile, it offers high integration flexibility to meet your specific requirements while ensuring reliable data transmission.

Smart Data Transmission & Battery Life

HydraConnect features an advanced scheduling system enabling scheduled data transmission from HydraScout and HydraSolo probes **at 15-minute intervals or according to a customizable reporting pattern.**

Designed for optimal energy efficiency and reliable data acquisition, the unit operates on a **3.6 V D-size Lithium Thionyl Chloride battery** and delivers a maintenance-free operational lifetime of up **to 3-5 years.**

This makes **HydraConnect** ideally suited for remote and hard-to-access installations.



Product datasheet **HydraConnect**

Connectivity & Sensor Compatibility

HydraConnect communicates over **LTE-M Cat.1** and **NB-IoT networks**, ensuring low-power data transmission even when the enclosure is installed at ground level or under dense canopy.

A **2G fallback** version is also available for countries and agricultural areas where 4G coverage remains limited.

Thanks to its plug-in interface card, **HydraConnect** can also connect to external sensors using **SDI-12** and **RS-485** protocols, enabling seamless integration into our measurement systems. Additional I/O connections allow other sensor types to be supported as well.

Rugged Construction

HydraConnect enclosures are **IP68** and **IK08** rated, providing high resistance to moisture, dust, mechanical impacts, and temporary immersion.

Built for durability, the reinforced polyamide enclosure makes HydraConnect well suited for harsh agricultural and remote environments.

Data Security

To ensure data integrity and confidentiality, all data are encrypted using **AES-256** and securely transmitted via **HTTPS** to our decision support platform, **Odusol**®.

Warranty

HydraConnect is covered by a **2 years** warranty.

Software

HSTI France provides **Odusol**®, a decision support platform dedicated to soil data analysis and valorization. APIs are available for integration with third-party platforms or software.

Technical datasheet : HydraConnect

Enclosure Dimensions	185mm x 150mm x 30mm	
Certifications	IP68 IK07	
Operating temperature range	-30°C à +60°C	
Power Supply	2 × 3.6 V D-size Lithium Thionyl Chloride batteries	
Connectivity	LTE-M (Cat-M1) NB-IoT (Cat-NB1/NB2)	Modem Nordic nRF9160
Sim Card	Multi-operator European SIM card	
GPS	Nordic nRF9160 internal GPS boosted by a low-noise amplifier (LNA) allowing operation in low signal	~3m CEP, 50%, GPS, open sky
Communication protocol	SDI-12 ou RS485	
Connection	3 wire cable (SDI-12) 5 wire cable (RS485)	Red/Brown = power supply Green/Yellow = GND White/Blue = data Specific wiring

HydraConnect Connectivity

Digital Input	1 x Digital Input with configurable pull up/pull down 0-40V DC input range On/Off thresholds: On > 2V, Off < 1V Can be used for pulse counting (max 40Hz)	
Digital Output	1 x switched ground	
Protocols	SDI-12 I ² C RS-485	Available Available On demand
Switched Power Out	3.3V switched power for sensors	
Switched Sensor Power	5V or 12V selectable power for sensors	
1-Wire[®] or iButton[®]	Available	
4-20mA	1 x 4-20mA input	
Connection	3 wire cable (SDI-12) 5 wire cable (RS485)	Red/Brown = power supply Green/Yellow = GND White/Blue = data Specific wiring