Pitch Lander

- Memory capacity for storing 100,000 measurements
- 5-minute measurement interval
- 60-minute transmission interval
- Compact frame
- Built-in SIM card
- Can be used worldwide
- Narrowband LTE technology
- Battery life: 6 months

Pitch Lander

Description

Pitch Lander

The Pitch Lander is Wireless Value's monitoring device designed to support greenkeepers and agronomists by providing accurate data on sports pitches.

A number of sensors are mounted within the compact frame; Wireless Value has many years' experience with these sensors from the greenhouse horticulture sector.

All sensors are connected to the IoT Gateway, which automatically transmits all data to the cloud. The IoT Gateway has a built-in SIM card and a battery life of 6 months.

All sensors are powered by this battery.

The Pitch Lander measures:

- Ambient temperature
- Ambient relative humidity
- Soil moisture
- Soil temperature
- Soil EC
- PAR light sensor (measuring the photosynthetic spectrum)
- NDVI index
- Measurement interval: 5 minutes
- Transmission interval: 60 minutes

Pitch Lander

Specifications

General

Battery type	ER26500

Measurement range

Temperature	-20 °C to +80 °C
Relative humidity	0% - 100%
Operating limits	-20 °C to +80 °C
VWC	0 to 100% VWC
Bulk EC	0 to 2000 µS/cm
Pore Water EC	Hilhorst model calculation
Spectral range (50%)	400 to 700 nm ± 4 nm

Measurement accuracy

Temperature	± 0.3 °C from -20 °C to 80 °C
Relative humidity	± 1.5% RH from 0 to 80% RH; otherwise ± 2% RH (at 25°C and 1 m/s airflow)
VWC	0.07%
Bulk EC	0 to 1000 µS/cm = 25 µS/cm. 1000 to 2000 µS/cm = ±2.5%
Pore Water EC	Hilhorst model calculation
PAR sensor response time (95%)	< 1 □s
Temperature response	< -0.12
Directionality (up to 80° with 1,000 □mol/m²·s beam)	< 30 □mol/m²·s
PAR sensitivity	4 to 10 □V/□mol/m²·s

Measurement resolution

Temperature	0.1
Relative humidity	0.1
VWC	0.1% VWC
Bulk EC	1 µS/cm
Pore Water EC	1 µS/cm

Legislation and standards

RED (Radio Equipment Directive)	yes

CE	yes
EN 300 220	yes

Technical specifications

4G connection	Narrowband LTE
Number of batteries	1
Battery voltage	3.6
IP rating	IP65
Memory	100,000 values

Dimensions

Housing dimensions	270mm x 210mm x 210mm
Sensor dimensions	Soil moisture sensor: pin length 16 cm, 0.350cm
Weight	2.85 kg