Grodan® GroSens

GroSens rootzone sensor

Product data sheet



The redesigned GroSens provides more accuracy, a wireless connection and industry leading precision measurements for Water Content (WC), Electrical Conductivity (EC) and Temperature. Benefit from accurate sensor data insights and consistent data quality, complemented by enhanced GroSens data models optimized for specific Grodan products.

V1.0 2025

General information

Product number	RZ21GS13
Brand name	GroSens Rootzone sensor 2.2

Wireless communication

Protocol	LoRa
Operating frequency range	863 - 870 MHz (EU) 902 - 928 MHz (USA, CAN) 915 - 928 MHz (AU, NZ) AS 920 - 923 MHz (Japan) KR 920 - 923 MHz (Korea) AS 923 - 925 MHz (Thailand)
Maximum output power*	Max 14 dBm (EU regions) Max 22 dBm (non-EU regions) * The maximum transmission power is region specific and is regulated by the respective regulatory authorities.

BLE

Operating frequency range	2402 - 2480 MHz
Maximum output power	4 dBm

Power specifications

Operating voltage	3V DC
Power source	4 x 1.5V alkaline AA
Standby current	0.1 mA maximum
Operating current	120 mA maximum

Measurement specifications

Water Content	
Range	0 - 100%
Accuracy	+/- 0.15 m^3 +/- 0.05 m^3/m^3 VWC in any porous medium
Resolution	0.001 m^3/m^3
Electrical Conductivity	
Range	0 - 20 mS/cm
Accuracy	+/- 1 mS/cm of maximum reading 20 mS/cm
Resolution	0.001 dS

Measurement specifications

Rootzone temperature	
Range	0 - 50 °C
Accuracy	+/- 0.5 °C
Resolution	0.1 °C

System requirements

Placement	Sensors must be placed within a 150-meter radius of the gateway.
Positioning	Rootzone sensor positioning guide: Search for 'place a rootzone sensor' on www.support.grodan.com

Additional features

Most reliable, representative WC, EC and rootzone temperature measurements due to measuring at 2 heights.
Grodan substrate-optimized data models.

Grodan
Industrieweg 15
6065 JG Roermond
Tel: +31 (0)475 35 35 35
www.grodan.nl

Our information is compiled with the greatest possible care and according to the latest technological developments, however this information is non-binding at all times. Grodan is part of the ROCKWOOL Group.