

Soil Moisture Data Sheet



The Water-Insight Soil Moisture Logger (WSML) is a soil moisture tensiometer that has the ability to connect up to four probes. The WSML base package includes a soil temperature probe and two soil moisture probes. A tipping bucket rain gauge is supplied as an optional extra. The device integrates into Water-Insight's web monitoring system (IMS) and uses long range LoRa radio modulation to connect to internet gateway equipment. The device can also operate as a data logger when used in conjunction a handheld programmer (EP3).

Features:

- Near real time monitoring
- Up to 4 Soil moisture probes, 1 tipping bucket rain gauge and 1 soil temperature sensor
- Approx. 5 km operating range to internet gateway equipment
- Fully integrated to Water-Insight cloud- based Irrigation management System (IMS)
- Data collection tool for local and offline operation
- Battery operation with solar power charging, supplied in the Water-Insight RSS01 remote solar station
- Installation kit includes 2.5m, 50mm galvanized water pipe standard and device mounting fixtures



Item	Parameter	Specification
General		
	Dimensions	Approx. 110 x 70 x 25 mm Mounting holes 4 x M3
	Weight	250gm
	Temperature	Operating: 0-65 degrees C Storage 0-65 degrees C
	Humidity	0-90% condensing
	Ingress Protection	IP20 (device only) IP67 When fitted in RSS01 enclosure
	Power	Input voltage: 12V (13.8V max) Current: 0.2A Max.
	Device Management	Device Management Local: via USB Web: via IMS
Input/Output		
		- 4 x soil moisture probes to fit Irrrometer Watermark Soil Moisture Sensor - model 200SS - 1 x Soil temperature probe 10k ohm thermistor 10K3A5421 from Betatherm - 1 x rain gauge input 0.2 mm tip (contact switch type)
Radio		
	Regulatory	ISM band, AS/NZS 4268
	Antenna	3dBi fibreglass whip
	Operating Frequency	915 – 928 MHz
	Output Power	20 dBm max. (configurable)
	Receiver Sensitivity	-132 dBm (@ SF 10, BW 125KHz) (LoRa) -121 dBm (GFSK)
	Modulation	LoRa or GFSK (configurable supply option)
Communications		
	USB	USB 2.00, Type Mini-B connector interface
	Data Retrieval	Local: EP3 Data Manager (to Secure Digital card SDA 2.0) GFSK datalogging option only Web: via IMS network gateway

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