

# Slab Weight Sensor

This kit measures weight using slab weight sensors and tracks drain water volume, ideal for horticulture setups. Suitable for greenhouse environments to monitor water consumption and growth-related changes in plant substrate mass. This device, belonging to the PRO sensor series, includes Aranet Sub-GHz ISM band radio which wirelessly transmits sensor measurements to the Aranet PRO base station.



## Product numbers

Product number	Radio band	To be used in
TDSPSS01	EU868	European Union
TDSPSSU1	US920	United States of America, Canada, South America, Australia, New Zealand
TDSPSSU1	AS923	BRN, KHM, HKG, IDN, LAO, TWN, THA, VNM, MYS, SGP
Not available	JP923	Japan
Not available	KR923	South Korea

- This product is a kit consisting of several separate devices. It combines Aranet devices with carefully selected solutions from other companies to provide a single, unified solution. Please consult the *Kit contains* table for a detailed list of included devices.

## Kit contains

Product number	Manufacturer	Product name	Amount
TDSPSV*2.05S	Aranet	Weight Sensor	2
TDSPIK*2.010	Aranet	Drainage Sensor	1
—	Voshol Techniek	Slab Weights System	1

- Aranet product number designations include the symbol “\*” to signify multiple product numbers, which, depending on the region of use, have either 0, U or J in place of the asterisk. Refer to the relevant product datasheets for more information.

## Specifications of kit components

### General

Ingress protection rating	IP67	
Operating temperature range	-40–60 °C	-40–140 °F
Product dimensions	1400×270×180 mm	55.1×10.6×7.1 in
Weight	15.3 kg	33.7 lbs
Packaging includes	3 pcs AA alkaline battery, 3 pcs polyester string for hanging the transmitters	

### Slab Weight System

Slab weighing area dimensions	1345×220 mm	53.0×8.7 in
Product material	Stainless steel	

### Weight Sensors

Range	0–100 kg	220 lbs
Resolution	0.001 kg	0.04 oz
Accuracy	±0.010 kg	±0.4 oz
Maximum overload	150 kg	330 lbs
Transmitter cable length	1 m	9.8 ft
Transmitter power supply	1 pc AA battery for each transmitter	

- This specification is defined for the use of two load cells. For detailed information, refer to the datasheet of the Aranet Weight Sensor.
- Please note that weight sensors transmit the weight value as a inverted (negative) value. This can be adjusted in the cloud by creating a virtual sensor. For more details, refer to section *Installing and using the Slab Weight Sensor*.

### Drainage sensor

Max Flow	3.6 l/h	1.19 gal/h
Resolution	5 ml	0.17 oz
Accuracy	±5 %	
Transmitter cable length	1 m	3.3 ft
Transmitter power supply	1 pc AA battery	

- For detailed specifications of each sensor and transmitter parameters, please use the product codes listed in the *Kit contains* table to locate the corresponding product data sheets.

## Installing and using the Slab Weight Sensor

- **Install the slab weight system.** Mount the sensor on a gutter or place it on a level surface. To install the weight system on a gutter, first remove the pre-installed feet by unscrewing them. Then, use the included screws to securely attach the weight system to the gutter.

- **Pairing Aranet sensors.** Pair all three Aranet sensors with the base station as outlined in the respective Aranet sensor data sheets.
- **Zeroing Aranet weight sensors.** After pairing both weight sensors included in this kit, they must be manually zeroed in the base station. Once the desired setup, including placing any required items on the sensors, is complete, access the base station's web interface and navigate to the *Sensors* menu. Locate the corresponding sensors and click on them. The sensor will display the current value (inverted), and you can click the *TARE* button to set the current weight as zero. Repeat this process for both slab weight sensors.
- **Creating a virtual sensor in Aranet Cloud.** If Aranet Cloud is used, weight sensor data should be combined and inverted for better data representation. To do this, log in to the Aranet Cloud connected to the corresponding base station and navigate to the *Sensors* menu. Open the *Virtual Sensors* tab and click the *New Virtual Sensor* button. First, select the *Expert* template, then assign a name to the sensor, such as *Slab Weight Sensor 01*. Choose the metric as *Weight* and add the two sensors to be combined. In the *Slope* fields, enter *0.5* for each sensor to calculate the average of both sensors. In the *Normalizing Factor (m)* field, enter *-1* to invert the measurements. Finally, click *Create* to finalize the virtual sensor setup.
- **Before using.** The drainage sensor's tipping bucket (spoon) is secured with an elastic band for transportation. Please remove the elastic band before use.
- For detailed description of the usage of the Aranet base station, consult the Aranet PRO/PRO Plus base station User Guide. For detailed explanation of Virtual Sensors in Aranet Cloud, consult Aranet Forum post *Aranet Cloud ► What could be practical appliance of Expert virtual sensor in Aranet cloud?*

## Compliance information

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 Conformité Européenne

 Federal Communications Commission (USA)

 Innovation, Science and Economic Development Canada

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