

The IRROMETER RSU-V is a 5VDC analog sensor outputting 0.5 to 4.5VDC representing 0 to 94 kPa (cb) of soil water tension, which can be installed in the gauge port of any IRROMETER Tensiometer to make it compatible with IoT or control devices.

Device Specifications:

- INPUT:** 5 Volts
- VOLTAGE RANGE:** 0.5 - 4.5 Volts
- SPAN:** 4 Volt
- TENSION RANGE:** 0 - 94 kPa (cb)
- CALIBRATION:** 0.0426 V/cb
- SUPPLY CURRENT:** 10mA
- RESPONSE TIME:** 400 msec



Operation:

5V is supplied to the RSU-V using the RED (+) and BLACK (-) wires. The output voltage is obtained by reading the WHITE and BLACK (-) wires. Multiple RSU-V's can share the same 5V and GND connections

Conversion of the output: $(\text{output}-0.5) / .0426 = \text{kPa (cb) of soil water tension}$

Cable Considerations:

Each RSU-V comes with 10ft of direct burial rated 3c cable, but additional cable can be added if necessary using the following guidelines for wire sizing:

DISTANCE	WIRE SIZE
Up to 200 ft. (61 m)	AWG UF 18 (1.02 mm, 0.82 sq mm)
Up to 300 ft. (91 m)	AWG UF 16 (1.29 mm, 1.31 sq mm)
Up to 400 ft. (121 m)	AWG UF 14 (1.63 mm, 2.08 sq mm)

IMPORTANT NOTES:

Only use a wrench on the BRASS part of the sensor to install or uninstall. Avoid applying force to the plastic section.

Do not use water containing chlorine or sulfur in tensiometers equipped with an RSU-V.

When de-airing or servicing an RSU-V equipped tensiometer, care must be taken to release the vacuum slowly. A sudden release of vacuum could cause damage to the pressure transducer, requiring complete replacement of the sensor.