

## IRROMETER®

### Option “AVS” — Automatic IRROMETER



**Operating Principle:** “AVS” Automatic Vacuum Switches are designed for use on IRROMETER instruments and provide direct switching capabilities according to soil moisture status. Soil water tension readings greater than the moisture set point can activate an irrigation valve solenoid, time clock or warning device. A switch mechanism is mounted on the instrument body and can be easily field adjusted by hand to the desired set point. The switch scale reads in centibars (cb) or kilopascals (kPa) of soil water tension.

**SPECIFICATIONS:** Brass switch housing with adjustable barrel and 18 inch wire leads

**WEIGHT:** 0.2 lbs (0.09 kg)

**DIMENSIONS:** Body Length = 3.75 inch (95 mm) HEX = 1.0 inch (25 mm)

**RANGE:** 5 to 85 centibar (kPa) with less than 10% of actuation point differential

**OPERATING TEMPERATURE:** 32° to 150° F (0° to 66° C)

**CONNECTION:** 1/4 inch brass male NPT for all Models. MLT requires adapter

**MECHANISM:** SPST Snap action switch with Buna-N diaphragm, closed at and drier than set point, rated for 1,000,000 cycles

**SWITCH RATING:** 24 VAC 10 amp maximum. Includes 18 inch (45 cm) AWG 18 wire leads

**REPEATABILITY CATEGORY:** ± 2% of full set point range at 70°F (21°C) Ambient Temp

**PROTECTION CATEGORY:** IP 69, C E, RoHS compliant

Compatible with any conventional 24 volt AC valve system and DC controllers with a sensor circuit

#### Features:

- Automates IRROMETER instruments to activate switch at moisture set point
- Available for AC or DC circuits
- Available with switch closed past setting
- Sealed to prevent contamination from dirt and moisture

The Automatic IRROMETER provides direct switching capabilities thereby allowing the user to control irrigation events. The switch can control a single valve, a group of valves, or the entire irrigation controller. The switch's unique rotating barrel allows for easy field adjustment by hand. Rotating the barrel displays the scale, allowing the user to adjust the set point.

#### Specification Information:

The Automatic IRROMETER shall have direct switching capabilities in order to initiate an irrigation event, interrupt an irrigation event, or activate a warning system. It shall be referenced by centibars (cb) or kilopascals (kPa) of soil water tension and be sealed from moisture and dirt. It shall be the Automatic IRROMETER as manufactured by The IRROMETER Company, Inc. of Riverside, California.

### Option “RSU-V” — Voltage Output IRROMETER



**Operating Principle:** The “V” Series Voltage Option is designed for use on IRROMETER instruments to indicate soil moisture status electronically. The voltage output can be easily read by most brands of data loggers such as the WATERMARK Monitor.

#### Specifications:

**OUTPUT:** 0.5 to 4.5 VDC, 2.5 mA

**ACCURACY:** ± 2% of Full Scale

**RESOLUTION:** 0.3 kPa

**WEIGHT:** 2.16 oz. (61.22 g)

**DIMENSIONS:** 1 in. high x 1 in. wide x 1.88 in. deep (25mm high x 25mm wide x 30 mm deep)

**SUPPLY VOLTAGE:** 5 VDC (± 0.5 VDC)

**SUPPLY CURRENT:** 10 mA

**RANGE:** 0-94 cb (kPa) Includes 36 in. (90 cm) 3 conductor AWG 22 cable

**OPERATING TEMPERATURE:** 32° to 150° F (0° to 66° C)

**CONNECTION:** 1/4 inch brass male NPT for all Models. MLT requires adapter

Compatible with IRROMETER 900 series Monitor and other brands of dataloggers that read a voltage signal.

#### Features

- Low cost voltage output/input transducer
- C E and RoHS compliant
- Voltage output signal can be read by most brands and types of data logging equipment
- Temperature compensated
- Available in 0-94 cb (kPa) for all models
- Designed for limited wiring distances

The Voltage Output Option IRROMETER allows users to record the soil moisture trend electronically using a datalogger.

#### Specification Information:

The Remote Sensing Unit shall output soil water tension values by a 0.5 to 4.5 VDC signal and be sealed in a weatherproof brass body for use in harsh outdoor conditions. Readings shall be converted to centibars (cb) or kilopascals (kPa) of soil water tension by a datalogging device or computer. It shall be the Voltage Remote Sensing Unit IRROMETER as manufactured by The IRROMETER Company, Inc. of Riverside, California.

# AUTOMATION and OUTPUT OPTIONS



## Option "RSU-C" — Current Output IRROMETER

**Operating Principle:** "RSU-C" Series Remote Sensing Units are designed for use on IRROMETER instruments to indicate soil moisture levels by converting the reading to a 4-20 mA loop current signal. The signal can be read by a data logging device or an A/D card designed to read voltage. The value is expressed in centibars (cb) or kilopascals (kPa) of soil water tension by the reading device.

### Specifications:

**OUTPUT:** 4 to 20 mA loop current

**ACCURACY:** ± 0.5% of Full Scale

**WEIGHT:** 0.24 lbs. (109 g)

**DIMENSIONS:** Body Length 1.75 inch (44 mm) HEX 0.94 inch (24 mm)

**SUPPLY VOLTAGE:** 9 to 36 VDC

**SUPPLY CURRENT:** 20 mA

**RANGE:** 0-100 cb (kPa)

**OPERATING TEMPERATURE:** 32°F to 150°F (0° to 66° C)

**CONNECTION:** 1/4 inch brass male NPT for all Models. MLT requires adapter

**PROTECTION CATEGORY:** IP65, **CE**, and RoHS compliant

Includes 36 in. (90 cm) 2 conductor AWG 20 cable

## Features

- Piezoresistive Silicon Chip sensing element in a weatherproof 304 stainless steel body.
- **CE** and RoHS compliant
- Temperature compensated

The Current Output Option IRROMETER allows users to record the soil moisture trend electronically using a datalogger.

### Specification Information:

The Remote Sensing Unit shall output soil water tension values by a 4-20 mA loop current signal and be sealed in a weatherproof 304 stainless steel body for use in harsh outdoor conditions. Readings shall be converted to centibars (cb) or kilopascals (kPa) of soil water tension by a datalogging device or computer fitted with an A/D card. It shall be the Current Remote Sensing Unit IRROMETER as manufactured by The IRROMETER Company, Inc. of Riverside, California.

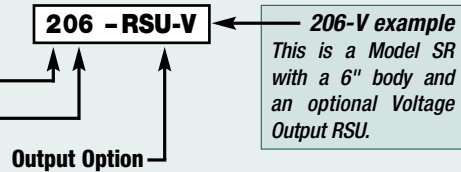
### Part numbering nomenclature for ordering:

#### IRROMETER Model

<b>R</b> = 1 _ _	<b>Body Length</b>
<b>SR</b> = 2 _ _	<b>06"</b> (15 cm)
<b>TG</b> = 3 _ _	<b>12"</b> (30 cm)
<b>LT</b> = 5 _ _	<b>18"</b> (45 cm)
<b>*S</b> = 200	<b>24"</b> (60 cm)
<b>**MLT</b> = MLT	<b>36"</b> (90 cm)
	<b>48"</b> (120 cm)

\*The Model 200 uses its own unique interchangeable extension tips — available in lengths from 6" (15 cm) to 48" (120 cm).

\*\*The Model MLT is available in 6" (15 cm) length only.



**VOLTAGE OUTPUT REMOTE SENSING UNIT**  
**-RSU-V** [0-94 cb (kPa)]

**CURRENT OUTPUT REMOTE SENSING UNIT**  
**-RSU-C** [0-100 cb (kPa)]

**AUTOMATIC OPTION**  
**-AVS**  
 For Models R, S, SR, TG, LT  
 Model MLT requires an adapter

**IRROMETER® THE IRROMETER COMPANY, INC.**

1425 Palmyrita Ave. • Riverside, CA 92507 • (951) 682-9505 PHONE • (951) 682-9501 FAX  
 www.IRROMETER.com • sales@IRROMETER.com

