

# IRROMETER®

## Option "A" — Automatic IRROMETER

**Operating Principle:** "A" Series Automatic Gauges are designed for use on IRROMETER instruments and provide direct switching capabilities in addition to indicating 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 gauge face and can be rotated to the desired set point. The gauge reads in centibars (cb) or kilopascals (kPa) of soil water tension.



### Specifications:

2 in. (50 mm) diameter gauge face with polycarbonate inner window, butyrate outer window and neoprene cover.

WEIGHT: .375 lb. (.170 kg)

RANGE: 0-100 cb (kPa) for Models R, S, SR & TG  
0-40 cb (kPa) for Model LT

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

MECHANISM: Bronze Bourdon tube

CONNECTION: 1/4 in. NPT brass bottom  
for Models R, S, SR, LT, TG

SWITCH RATING: 30 volt AC/DC, .4 amp maximum  
Includes 16 in. (40 cm) AWG 18 wire leads (2)

Compatible with any 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 open or closed past setting
- Hermetically sealed to prevent contamination from dirt and moisture
- Neoprene cover with integral diaphragm compensates for variations in temperature and barometric pressure

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. Ideal for managing irrigation based on soil moisture depletion.

### Specification Information:

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

## Option "RSU-V" — Voltage Output IRROMETER

**Operating Principle:** "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 VOLTAGE: 0.5 to 4.5 V, 2.5 mA

ACCURACY: +/- 2% of Full Scale

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)

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

CONNECTION: 1/4 in. NPT brass  
for Models R, S, SR, LT, TG

SUPPLY VOLTAGE: 5VDC (+/-0 .5VDC)

SUPPLY CURRENT: 10 mA

RANGE: 0-94 cb (kPa)

Includes 36 in. (90 cm) 3 conductor AWG 22 cable

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

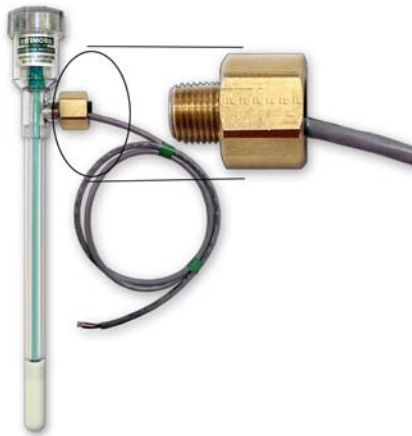
### Features

- Low cost voltage output/input transducer
- 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 Models R, S, SR, TG, LT, MLT
- Designed for limited wiring distances

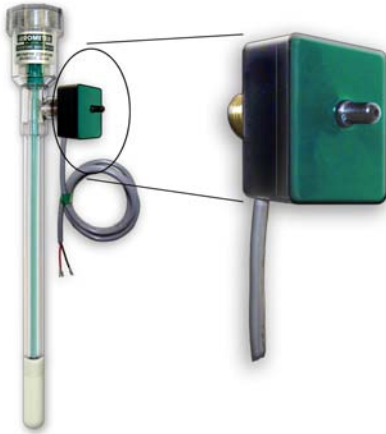
The Voltage Option IRROMETER allows users to record the soil moisture trend electronically using a datalogger.

### Specification Information:

The Voltage Option IRROMETER shall read in centibars (cb) or kilopascals (kPa) of soil water tension. It shall be the Voltage Output IRROMETER as manufactured by The IRROMETER Company, Inc. of Riverside, California.



# AUTOMATION and OUTPUT OPTIONS



## Option "RSU-C" — Current Output IRROMETER (Transducer 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:

- DIMENSIONS: 1.5 in. high x 1.25 in. wide x .75 in. deep  
(38 mm high x 32 mm wide x 20 mm deep)
- WEIGHT: .175 lb. (79.4 g)
- ACCURACY: +/- 2% of Full Scale
- CALIBRATIONS: 0-34 cb (kPa): (LT, MLT)  
0-93 cb (kPa): (R, S, SR, TG)
- OUTPUT VOLTAGE: 4 to 20 mA loop current
- SUPPLY VOLTAGE: 12 to 24 VDC
- SUPPLY CURRENT: 20 mA
- RANGES: 0-93 cb (kPa) and 0-34 cb (kPa)
- OPERATING TEMPERATURE: 32° to 150° F (0° to 66° C)
- CONNECTION: 1/4 in. NPT brass back for Models R, S, SR, LT, TG  
1/8 in. NPT brass back for Model MLT
- ABS Plastic case with weatherproof potted electronics
- POWER REQUIREMENT: 12-24 VDC excitation current  
Includes 36 in. (90 cm) 2 conductor AWG 20 cable

### Features

- Pressure transducer and electronics are sealed in potted weatherproof housing
- Available in two calibrations for varying soil types and IRROMETER models
- RoHS compliant
- Temperature compensated

The Current Remote Sensing Unit (Transducer IRROMETER) provides a 4-20 mA signal for those desiring to use dataloggers and other scientific equipment.

### 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 potted waterproof housing 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:

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

**206 - RSU-V**

**206-V example**

This is a Model SR with a 6" body and an optional Voltage Output RSU.

**Output Option**

#### AUTOMATIC GAUGE

For Models R, S, SR, TG, LT

- AAS .... w/AC switch closed past setting
- AAR .... w/AC switch open past setting
- ADS .... w/DC switch closed past setting
- ADR .... w/DC switch open past setting

#### VOLTAGE OUTPUT REMOTE SENSING UNIT

-RSU-V ..... Models R, S, SR, TG, LT, MLT

#### CURRENT OUTPUT REMOTE SENSING UNIT

- RSU-C-93 [0-93 cb (kPa)] .... Models R, S, SR, TG
- RSU-C-34 [0-34 cb (kPa)] .... Models LT, MLT