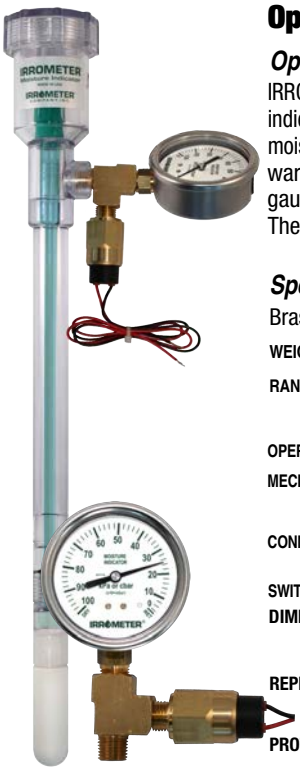
IRROMETER®



Option "A" — Automatic IRROMETER

Operating Principle: "A" Series Automatic Switches 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 tee fitting between the gauge and the instrument body and can be adjusted to the desired set point. The gauge reads in centibars (cb) or kilopascals (kPa) of soil water tension.

Specifications:

Brass switch housing with adjustment screw and 18 inch flying lead wires

WEIGHT: 0.15 lbs (0.07 kg)

RANGE: 10 to 95 centibar (kPa) with less than 10% of actuation point differential

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

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

CONNECTION: 1/4 inch brass male NPT with tee and gauge, for Models R, S, SR, LT, MLT , TG

SWITCH RATING: 24 VAC 4 amp maximum**.** Includes 18 inch (45 cm) AWG 18 wire leads (2)

DIMENSIONS: 1.64 inch (41.6 mm) body
0.94 inch (23.8 mm) hex

REPEATABILITY CATEGORY: ± 3% of full set point range at 70°F (21°C) Ambient Temperature

PROTECTION CATEGORY: IP 67, CE marked, RoHS compliant

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 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. 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 sealed from moisture and dirt. Instrument 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

RESOLUTION: 0.3 kPa

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.

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:

206 – RSU-V

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

IRROMETER Model

R = **1** _ _
SR = **2** _ _
TG = **3** _ _
LT = **5** _ _
***S** = **200**
****MLT** = **MLT**

Body Length

06" (15 cm)
12" (30 cm)
18" (45 cm)
24" (60 cm)
36" (90 cm)
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.*

Output Option

AUTOMATIC GAUGE
For Models R, S, SR, TG, LT

–AVS-_*_

* Insert set point is to be factory set between 10 and 95 cb (kPa). If not specificed, it will be supplied set at 30 cb (kPa). Switch can be field adjusted.

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

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Irrigation Association Bronze Member

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