

the field. The Analog tensiometer is using electronics

for a more precise and efficient performance.

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Analog Tensiometers

An Analog Tensiometer, is principally identical to any other Tensiometer, with one major difference: Instead of having a mechanical gauge there is an Electronic Vacuum sensor, also named Analog Transducer, that transmits, via cable, vacuum readings to a computerized monitoring or control system.

The main use:

- Continuous, long term follow-up of soil moisture changes with no need of physically being on site.
- Viewing on-line or historical data anywhere, any time, through various devices, Such as P.C. Smartphones, Tablets etc.
- Optional, Automatic irrigation start/stop according to soil water condition.

Ami-Tens' Analog sensors have standard electronic outputs (4-20mA or 0-2V), which are compatible to most monitoring or control systems available in the market.

Specifications:

The device's body – the same as all Ami-Tens' tensiometers, whereas beneath the transparent window there is a TEE connector in which the Analog Transducer is screwed. On top of the device there is a screwed cap for water refill.

The Analog Vacuum Sensor (Transducer)

Its body is a stainless steel Cylinder (L=6cm or 10cm, D=2cm), with a G1/4" threaded connection.

Electro-Mechanical details:

The Transducer converts Physical values (water tension) to electrical standard outputs. There are 2 basic models, differing from each other by the output mode:

- a) 4-20mA output, to measure Currency changes,
- **b)** 0-2V output that measures Voltage changes.

Measured changes of Currency or Voltage are proportional to changes in water tension and thus, reflect the changes of soil moisture levels.

Measurement range:

- a) Standard model : 0 -100 CB (Kpa) or 0-1000mB.
- **b)** Low Tension model, (for soilless media or sand): 0-200Mb. Operation Power:
- **a)** For 4-20mA model: 10-24V
- b) For 0-2V model : 3-12V (The inlet is stabilized)
 Temperature compensation: Between 0-70C⁰ Length of cable between the sensor and the Logger- up to about 200 M.

General remarks:

- a) The top cap, being used for water refill, must always be hermetically closed.
- **b)** In order to prevent algae growth we recommend to add a few drops of liquid home Chlorine solution into the pipe, or, alternatively, cover the transparent part by an Aluminum foil or a small pipe or any other material.
- c) Upon ordering please state the required measuring depth.

