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- High precision and accuracy
- Very resistant stainless steel pan
- Water level sensor with excellent resolution
- Polynomial compensation of the atmospheric pressure

# Description

TEVAP is a A Class evaporimeter specifically designed to be compliant with WMO standards, and it represents one of the most useful sensor in agrometeorology to investigate the level of evapotranspiration in a specific area. Basically, TEVAP is composed of a sturdy stainless steel pan, in which a piezometer is submerged, measuring the variation of water level in the pan due to external environmental conditions. A wood plank placed at the bottom of the pan allows to isolate the evaporimeter from the ground, in such a way as to avoid that the measurement might be affected by the transmission of soil heat and moisture. The whole system is very performant, ensuring high standards of accuracy and resolution also for little variations of water level. The sensing element indeed has been thoroughly designed to detect really small changes in the measurement. It is composed of a ceramic cell, and the output value of pressure is given by a polynomial compensation of the atmospheric pressure. The sensor is equipped with digital output on serial RS485 port, and analog output as well (on current 4-20 mA). TEVAP is supplied with power and signal cable (12 m).



## Main features

- **High accuracy and resolution**
- **Very performant piezometer, composed of a ceramic cell with long-term stability**
- **Low power consumption**
- **Class A evaporimeter, compliant with WMO standards (World Meteorological Organization)**

## Technical Specifications\*

### Measurement performance

#### Pressure [mBar]

Transducer	Ceramic cell measuring the pressure of the overlying water column
Measurement range	0 ÷ 30 [mBar]
Typical error	± 0.1 % (full scale)
Stability	± 0.1 [mBar]

### Operating conditions

Pressure	0 ÷ 30 [mBar]
Temperature	0°C ÷ 80°C

### Outputs

RS485-Modbus	Pressure (mBar)
Current	4 ÷ 20mA ↔ 0 ÷ 30 mBar

### Power supply and Consumption

Voltage supply	8 ÷ 28 Vdc		
Consumption (mA)	Min	Typical	Max
RS485-Modbus	-	5	-
4 ÷ 20 mA	4	-	20

### Mechanical specifications

Protective body	Stainless steel		
Dimensions	Ø = 120.7 cm;	Height = 25.4 cm	

### Ordering codes

Current output, RS485-Modbus serial output	PSM-t019a-TEVAP-IS
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\*Changes on technical performances can be applied upon request of specific calibration