Tensiometer FDA 602 TM3

- Measurement of soil moisture through the identification of suction pressure. The suction pressure is the force with which water is being held in the soil or is available for absorption. This is the force that must be produced by the plant roots in order for water to be absorbed.
- The porous, clay tip of the tensiometer transfers water from within to the drier outer surroundings by means of capillarity, thereby, creating a sub-pressure within the sealed tensiometer tube. This sub-pressure is a measure of the moisture level and can be determined as a value or used directly to activate an electrical switch. The customary unit of measurement is hPa.
- However, a tensiometer also functions in dry air as long as evaporation can take place over the porous, clay chamber. Therefore, moisture levels can be measured even in coarse-grained or very loose substrate.
- Suction pressure measurements are largely independent of the salt concentration of the substrate or soil.

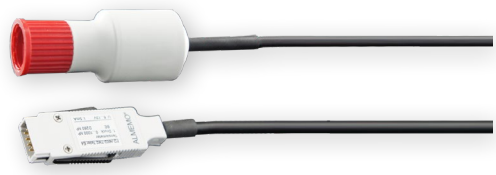
Typical Suction Pressure at Peat Substrates

30 – 40 hPa	very moist
50 – 120 hPa	moist
150 – 200 hPa	dried
>200 hPa	dry

Typical Suction Pressure at Open fields
(intermediate grade soil)

< 50 hPa	saturated
100 – 150 hPa	wet to moist
>200 hPa	start drying
200 – 500 hPa	Irrigation

Moisture tension meter, electronics



Technical Data

Measurement:	Measurement of soil moisture through the identification of suction pressure.
Measure range:	0 to -1000 hPa relative (negative pressure)
Output:	0.3 to 3.0 V
Power supply:	5 V via ALMEMO® connector
Cable:	Sensor with cable, length = 5 m, with ALMEMO® connector

Type	Order no.
Tensiometer electronics for screwing onto the tensiometer with cable and ALMEMO® connector	**FDA602TM3**

Types	Order no.

Insertion Tensiometer L2 — ZB9602TML2



Ceramic cell:	Cylindrical, with tip, Ø 20 x 65 mm
Overall length:	approx. 340 mm
Insertion depth:	typical 250 mm

Insertion Tensiometer LKV2 — ZB9602TMKV2



Ceramic cell:	Cylindrical, with tip, Ø 15 x 40 mm
Overall length:	approx. 160 mm
Insertion depth:	typical 70 mm

Surface Tensiometer FO — ZB9602TMFO



Sensor completely porous for measuring in thin layers of substrate.

Dimensions:	65 mm, Ø 70 mm
Sink deep:	approx. 30 - 60 mm

Surface Tensiometer FV — ZB9602TMFV



Standard model for use on capillary matting, for moist to moderately moist cultivation or for general measurement on moist surfaces.

Dimensions:	65 mm, Ø 70 mm

11/2025 • We reserve the right to make technical changes.