Tensiometers

Mobile field feldtensiometer – Tensio 100

101100 Standpipe height 30 cm
101200 Standpipe height 60 cm
101300 Standpipe height 90 cm

Mobile field tensiometer with acrylic glass tensiometer head and polycarbonate protective film on the back, precision vacuumeter (diam. 63mm), filling screw, pressure pre-adjustment to shorten the measuring time and air exhaust from tensiometer, ceramic cell (SKA 100 FF, 10x24), brass support, V2A standpipe (diam. 10mm) and V2A tip.

Accessories:

- Double-chamber protective tube (Al anodised) with block, PE protecting cap and sponge
- V2A boring tool.

Technical parameters:

Tension range:	0...- 85 kPa
Operating temperature	0...+ 40 °C
Response time	< 3s
Ceramic cell:	diameter: Ø 10 mm, height 24 mm

Septum-tensiometer – Tensio 120

102100 Standpipe height max. 100 cm
102200 Standpipe height max. 200 cm

Penetration tensiometer with screwable tensiometer head and septum, GL 18, ceramic cell (P80, 20x50)
Acrylic standpipe (diam. 20 mm) with transparent liquid scale.
Protection cap for tensiometer cell.

Accessories:

- Penetration measuring device with 4-digit LCD (height 13 mm)
- Temperature-compensated piezoresistive pressure converter
- Measuring range 0 ...-1 bar, resolution 1 mbar
- Casing ABS (shock-resistant)
- 9V battery

Laboratory Tensiometer– Tensio 130

103100 Laboratory Tensiometer

Laboratory tensiometer with acrylic glass tensiometer head and integrated high-resolution pressure sensor and filling screw, ceramic cell (P80, 6.5x30) and connecting cord.

Accessories:

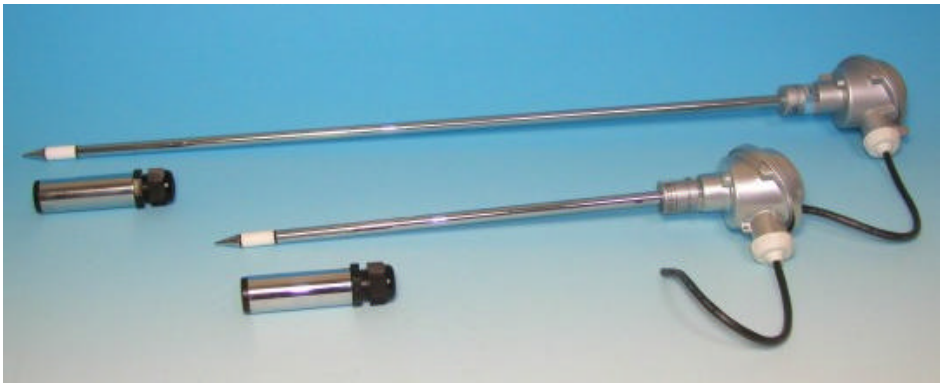
- Laboratory interface for directly connection on PC.

Technical parameters:

Tension range:	0...- 85 kPa
Operating temperature:	0...+ 40 °C
Resolution:	ca. 10 mV/V FS

Pressure sensure tensiometer – Tensio 150

104100 Standpipe height 30 cm
104200 Standpipe height 60 cm
104300 Standpipe height 90 cm



Pressure sensor tensiometer with light metal tensiometer head (IP 65) and high-resolution pressure sensor (ca. 10 mV/V FS), acrylic glass filling unit, ceramic cell (SKA 100 FF, 10x24), brass support, V2A standpipe (diam. 10mm), V2A tip, screened connecting cord (5 m standard length).

Accessories:

- Protective tube (brass, chromium-plated) with cap, screw (PA) and sponge
- V2A boring tool

Technical parameters:

Tension range:	+20 - 85 kPa
Operating temperature:	0...+ 40 °C
Response time acc. to RICHARDS:	< 3s
Linearity factor:	< 0,5 % FS
Temperature coefficient:	0,025 % K-1
Ceramic cell:	Ø 10 mm, height 24 mm
Optional: lOptional: integrated SMD amplifier (signal output)	0 - 1V DC; 0 - 5V DC 0 - 20 mA; 4 - 20 mA

Pressure sensor tensiometer
frost-protected – Tensio 151

105100 Standpipe height max. 100 cm
105200 Standpipe height max. 200 cm
105300 Standpipe height max. 300 cm

Pressure sensor tensiometer (frost-protected) with light metal tensiometer head (IP65) and high-resolution pressure sensor (ca. 10mV/V FS), acrylic glass filling unit linked to tensiometer cell, ceramic cell (P80, 20x50), PMMA standpipe (diam. 20mm), screened connecting cord (5m standard length).

Accessories:

- Protective tube (PVC) with cap, screw (PA) and sponge
- Boring tool with shaped cone and 1m extension

Technical parameters:

Tension range:	+ 20 ... - 85 kPa
Operating temperature:	can be used all year round if installed in frost-free depth
Response time acc. to RICHARDS	< 3s
Linearity factor:	< 0.5% FS
Temperature coefficient:	0.025% K-1
Ceramic cell:	P80, diam. 20 mm, height 50 mm
Optional: integrated SMD amplifier (signal output):	0 - 1V DC; 0 - 5V DC 0 - 20 mA; 4 - 20 mA

Pressure sensor tensiometer
frost-protected, suitable for networking and data base – Tensio 155

106100 Standpipe height max. 100 cm
106200 Standpipe height max. 200 cm
106300 Standpipe height max. 300 cm

Pressure sensor tensiometer, temperature and pressure-calibrated with storage of sensor code and calibration data. Light metal tensiometer head (IP 65) with integrated 2-channel sensor microbrain (IMP bus interface), high-resolution pressure sensor (ca. 10 mV/V FS), temperature sensor PT 100, acrylic glass filling unit linked to ceramic cell (P80, 20x50), PVC standpipe (diam. 20 mm), 5 m connecting cord.

Accessories:

- Protective tube (PVC) with cap, screw (PA) and sponge
- Boring tool with shaped cone and 1 m extensions

Technical parameters:

Tension range:	+ 20 ... - 85 kPa
Operating temperature:	can be used all year round if installed in frost-free depth
Response time ACC. to RICHARDS	< 3s
Ceramic cell:	P80, diam. 21 mm, height 50 mm
Bus system:	IMP 232 MICRONET
Microbrain:	SM-TENSU

Equi – Tensiometer – Tensio 300

109100 EQ 3 (0 ... - 300 kPa)
109200 EQ 15 (0 ... - 1500 kPa)

The operation principle of the Equi-Tensiometer based on the FDR-measuring technique the determination of the volumetric water content in soils, which is measured with a ceramic cell, which is connected to the probe. Over a specific calibration curve of the ceramic, whose water retentions function is known, the water tension of the surrounded soil is calculated by the water content.

Accessories:

- Read our unit Theta - Meter

Technical parameters:

Tension range:	0... -300 kPa ; 0 ... -1500 kPa (0...15 bar)
Operating temperature:	0 ... + 40°C
Conductivity limit zone:	< 1 mS / cm
Ceramik:	Ø 40mm, Length 60 mm
Probe length:	320 mm
Accuracy:	< 10 kPa im Bereich 0 ... - 100 kPa 10 % im Bereich - 100 bis - 1500 kPa

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