

# INFIELD 7b

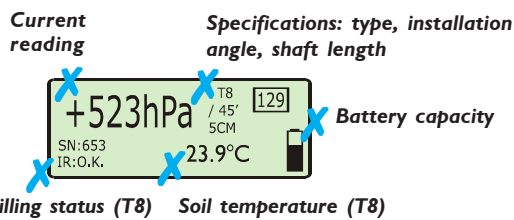
## Handheld readout unit

- **New multi probe capability: for Tensiometers, gypsum blocks, FD and temperature probes**
- **Memory for 250 readings**
- **Internal rechargeable battery**
- **Useful features like water column compensation, menu guidance, T8-calibration, ...**

The new INFIELD 7b has been improved to be a multi functional soil probe measuring device: Now it is not only possible to read all UMS Tensiometers and use the multiple communication features with the intelligent T8 and TS1 Tensiometers, but also other types of soil sensors.

### Multi probe capability

- ✗ Measure the soil water tension with UMS Tensiometers.
- ✗ Take readings of the soil moisture content with the FD-probes *Ech<sub>2</sub>ρ* or *Thetaprobe ML2x*.
- ✗ Connect *Soilmoisture* or *Watermark* gypsum blocks.
- ✗ Read the soil temperature with Thermistor probes like the TH2-f.
- ✗ All readings are displayed and stored in the corresponding unit: hPa, %vol, kPa or °C.



### Store readings

- ✗ The INFIELD 7 can store up to 250 readings. Readings are tagged with consecutive numbers. With the intelligent Tensiometers T8 or TS1 the serial number, filling status, soil temperature etc. are stored as well with each reading.

### Internal rechargeable battery

- ✗ The internal rechargeable battery supplies any connected sensor while taking a reading. The battery capacity is good for 10 hours of continuous measurements.
- ✗ Recharging is quite easy by connecting the INFIELD to the supplied mains power unit. The integrated charge controller monitors the quick-charging. Beside the 230 VAC standard recharging unit a 110 VAC version is available on request.



### User friendly menu

- ✗ All functions, the selection of the probe type, entering of settings etc. can easily be made by following the user friendly menu. The menu language, German or English, is selectable. For dim light conditions, a display lighting can be turned on.

tensiometer  
stored data  
akku voltage

✗ Easy to follow menu

L 8: +25HPA, 14,3°C,60', 5CM  
7: +23HPA, 14,3'  
6: +340HPA,T3,45',100CM  
5: +360HPA

✗ List of stored readings

### Compensation of the water column

- ✗ Tensiometers T1 and T3 are always installed more or less vertically. T5 might also be installed not horizontally. Thus, the water column inside the shaft additionally pulls on the pressure transducer causing an offset shift. Enter the shaft length and the installation angle of the connected Tensiometer, and the INFIELD will automatically compensate the vertical water column and offer the correct reading. Note that 1 cm of vertical water column corresponds to 1 hPa.

With T4 and T8 the water column inside the cup, i.e. 5 cm, is compensated depending on the installation angle.



### Standard sensor specifications

Beside UMS Tensiometers certain temperature probes, FD probes and gypsum blocks can be read out with the new INFIELD 7b.

- ✗ The sensor characteristics of the UMS Th2-f temperature probe, the FD-probes *Ech<sub>2</sub>o* and *Theta-ML2x*, the *Soilmoisture G-block* and the *Watermark* gypsum block are programmed as standard into the INFIELD 7b. Thus, the readings are displayed with their corresponding unit °C, vol%, kPa or hPa.
- ✗ Sensors supplied by UMS are all fitted with a standard plug M12/IP67 and are directly connectable either to the 4- or 8-pin connector on the INFIELD 7b.

### Readings with gypsum blocks

- ✗ Gypsum block readings are temperature compensated if the current temperature (measured separately) is entered before a measurement.



### Reading soil moisture content

- ✗ For the FD probes two soil calibration tables - mineral or organic - can be selected. Optionally, just read out just the gross output signal.

### Communication with intelligent Tensiometers

- ✗ T8 or TS1 Tensiometers are automatically recognized. Their integrated additional data like soil temperature and filling status are displayed and stored as well, just as the serial number which is programmed in each T8 or TS1 sensor.

### Calibration function for T8 Tensiometers

- ✗ With the INFIELD 7b, T8 Tensiometers can be recalibrated via the integrated digital bus. Re-set soil moisture and temperature offset and incline or the filling-status indicator threshold. Like any sensor, it is recommendable to calibrate Tensiometers every two years.

### Compatibility to previous Tensiometer versions

- ✗ Adapter cables for older Tensiometer versions, for example fitted with 7-pin plugs (made before 2000), are available.

### Support of forthcoming probes and features

- ✗ The new self-refilling TS1 is the next generation of an intelligent multi purpose soil probe. The INFIELD 7b is already capable of using all functions of the new TS1, like measuring the soil water tension in all levels, measuring the moisture content with it's integrated FD-probe, and controlling the incorporated soil water sampling.
- ✗ The firmware has full upgrading ability for keeping your device up-to-date and compatible to future sensor types and functions.
- ✗ The next new feature will be the possibility to download readings from the INFIELD 7b to a PC. Users who already have a new INFIELD 7b only will require an additional adaptor cable which will be ready for supply soon. All users of an INFIELD 7b will be kept informed.

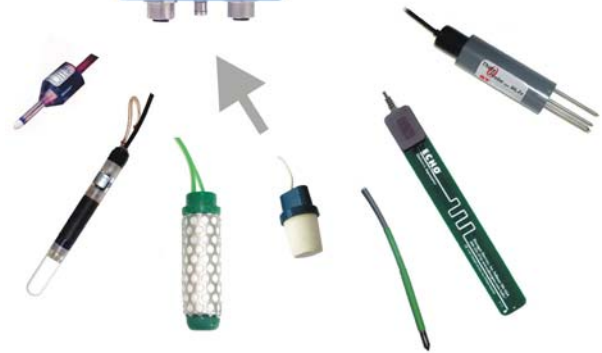


+523hPa TS / 45° SCM  
SN: 541  
R-DK: 23.9°C

+19.3°C Sensor (F1): TH2 (THERM)

1230hPa GIPSBLOCK (F1): GWMS  
Boden-temp (F2): 17°C

34,3%V TER-SCHNDE (F1): ECHO-10  
Boden-temp (F2): HÖRNERALZICH



### Technical Specifications

<b>Tensiometer</b>	-2500 hPa ... +2500 hPa
Resolution	± 1 hPa
Accuracy	± 1 hPa (T1...T8), ± 0.1 hPa (TS1)
<b>Water content (FD)</b>	0 ... 100 vol%
Resolution	± 0,1 vol%
<b>Gypsum block</b>	0 ... 10 kPa, depending on type
<b>Temperature</b>	-30°C ... +70°C
Resolution	± 0,1 K
Accuracy	± 0,2 K
<b>Memory</b>	250 readings
<b>Firmware</b>	Upgradeable
<b>Power supply</b>	NMH rechargeable battery
Capacity	550 mAh, up to 10 h operation
Recharging	230 VAC (optional 110 VAC) quick charge mains unit
<b>Housing</b>	IP65 (splash water proof)
Dimensions	174 x 92 x 30 mm
Connectors	4- and 8-pin female plug, charger-plug with LED

### Ordering information

### Art. no.

Handheld measuring device

**INFIELD 7b**

**Delivery includes:** INFIELD 7b, carrying case, refilling syringe, 200 ml bottle with distilled water, spare O-ring set for Tensiometers, mains recharging unit



Product  
Info

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