

# PICO-PROFILE T3PN

Accurate Moisture and Salinity Measurement in selected Soil Profiles –  
with the latest TRIME®-Radar Technology

A WORLD FIRST!



- ✓ Ideal for the development of soil-water balance models, irrigation control and salt content testing at different soil depths
- ✓ Continuous and gap-free measurement of soil moisture from the surface up to 3 meter depth.
- ✓ A measurement reproducibility  $< 0.2\%$  enables the use in lysimeters, as a substitute for elaborate determination of the weight.
- ✓ Simple and modular configuration
- ✓ Calibration curves for different soil types
- ✓ Connection of data logger via GPRS wireless modem
- ✓ Rugged and waterproof design
- ✓ Attractive price / performance ratio

# CONVINCING ADVANTAGES WITH A NEW GENERATION OF A MODULAR PROFILE PROBE



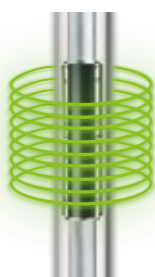
✓ In order to measure precise selected soil horizons, PICO-PROFILE can be configured with spacers easy and modular directly at site installation. The modular design allows to arrange up to 10 measurement segments PICO-T3PN in a continuous and gap-free way that different soil depths on the very interesting soil profile locations can be measured.

✓ Concerning the calibration each PICO-T3PN segment can be set to the particular soil horizon. Calibration curves for sand, loess or clay are already stored in every measuring segment PICO-T3PN and provide even higher precision in the measurement of the moisture content.

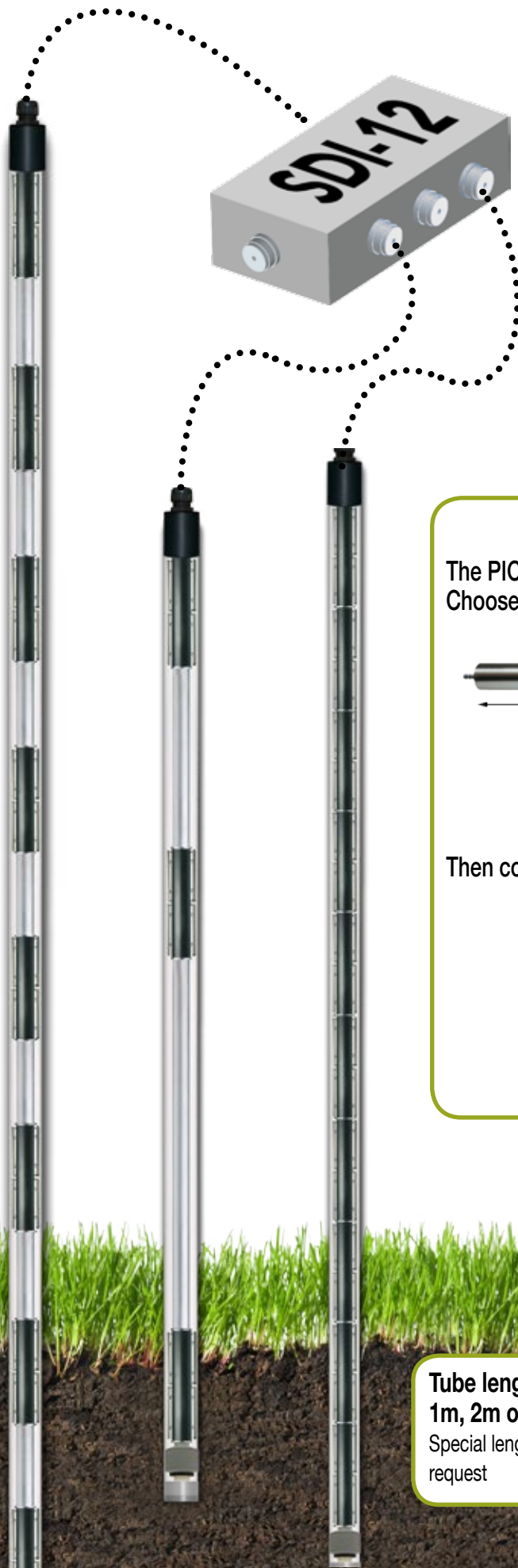
✓ PICO-PROFILE in addition to measuring soil moisture, measures the electrical conductivity EC of the soil, whereby the determination of the salt content in each soil horizon is possible. The measurement result can be calculated to the pore water conductivity  $EC_w$  or respectively to TDS (mg of salt per liter water).

✓ Rugged and waterproof design guarantees a long-term operation in harsh environments.

✓ Attractive price/performance ratio compared to conventional sensors allows the use of several measuring segments PICO-T3PN per measurement point.



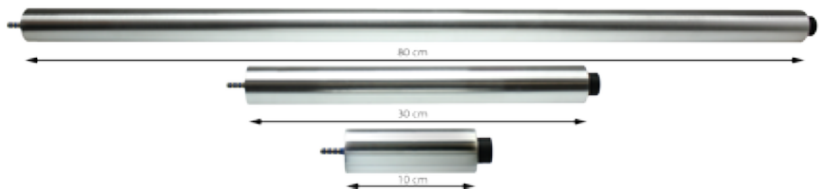
✓ With a representative measurement field PICO-PROFILE penetrates deep into the soil around the access tube. Each PICO-T3PN segment measures  $1\text{dm}^3$  soil.  
***This guarantees that the moisture is measured completely along the probe without gaps.***



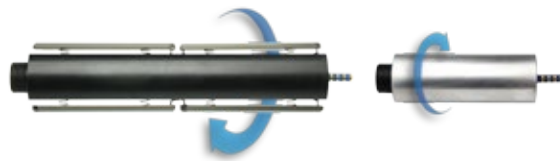
PICO-PROFILE can be easily connect to the data logger globeLog as well as to standard dataloggers with SDI-12-interface, which allows battery operation for long term storage of data. Optionally, the use of GPRS radio modem and SIM card is possible.

### The most flexible profile probe on the market!

The PICO-PROFILE can be easily adapted to your measurement task. Choose the connection tube set in your length (10, 30 or 80 cm).



Then connect it with the measuring segment PICO-T3PN by screwing.



Finished.

**Tube length:**  
**1m, 2m or 3m**  
Special lengths on request

# THE LATEST TECHNOLOGY FOR THE BEST MEASUREMENTS

## Technical Data



### Measuring Segment PICO-T3PN

Power supply:	7V..24V-DC
Power consumption:	100mA @ 12V/DC during 2..3sec. of measuring
Moisture measuring range:	0..100% volumetric water content
Accuracy (in % volumetric water content):	± 2%
Repeating accuracy/reproducibility:	< 0,1%
Conductivity measuring range:	EC <sub>w</sub> 0...>20dS/m
Measurement volume:	1dm <sup>3</sup>
Operating Temperature:	-15°C...50°C (extended temperature range on request)
Calibration:	Selectable calibration curves: 1. Standard calibration (soil ±3%) 2. Sand 3. Clay 4. Loam 5. Dielectric Permittivity
Probe body:	waterproof sealed (IP62)
Size:	210 x Ø 40mm
Access tube:	Tecanat Ø44mm, max. 3m length
Connection tube set between two PICO-T3PN segments:	Made of aluminium and PVC. Incl. BCS6 male-connector and female-connector. Available lengths: 10cm, 30cm and 80cm, special lengths on request!
Interfaces:	IMP-BUS or SDI12 RS485 on request
Cable:	2m, 5m and 10m cable with 4-pin female connector



Up to 3m depth:

Modular system and easy to handle:

Very large measurement field:

