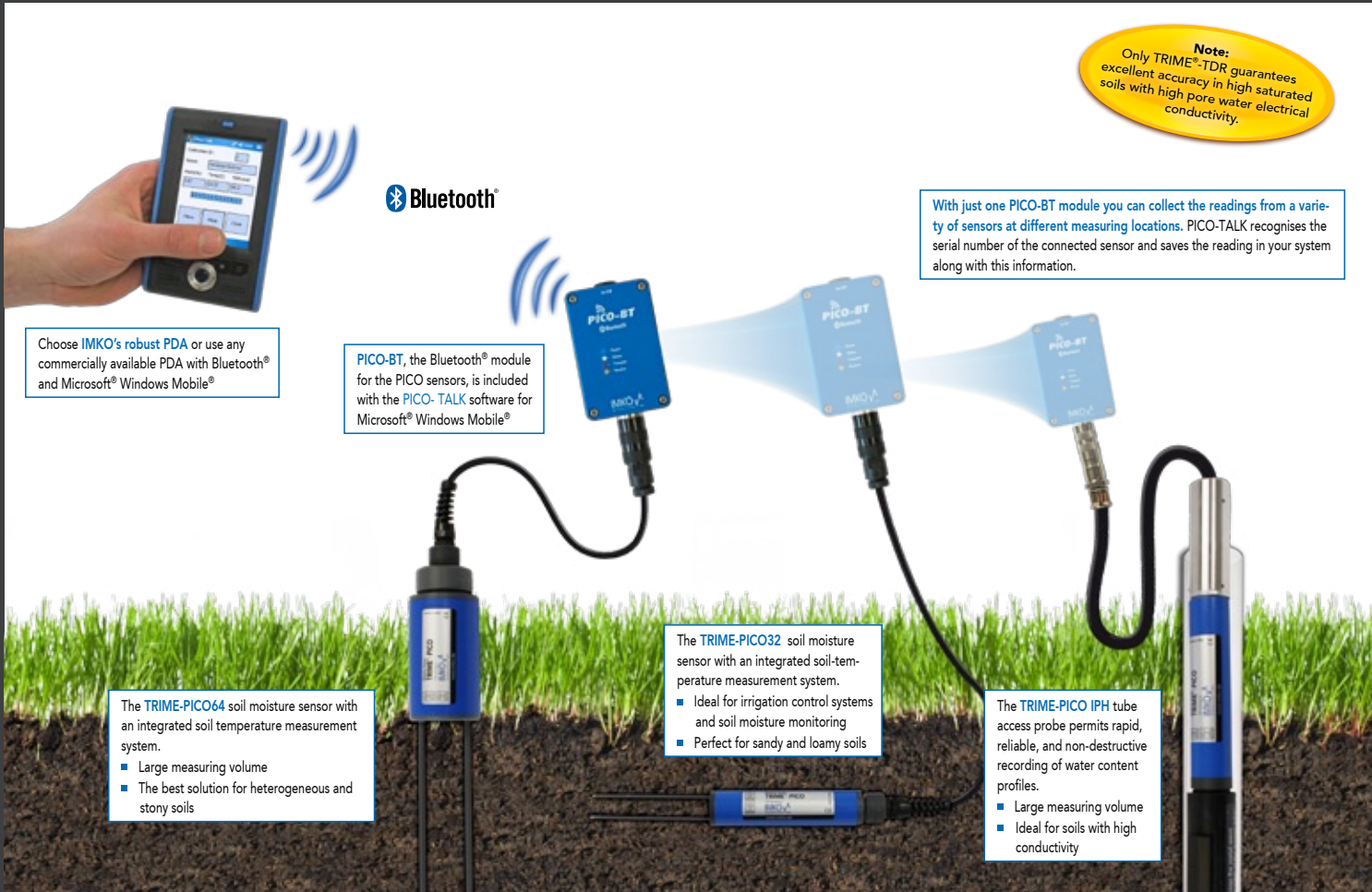


**PROFESSIONAL SOLUTIONS FOR SOIL MOISTURE MEASUREMENT
AND DATA LOGGING IN HYDROLOGY, FORESTRY, AGRICULTURAL,
ENVIRONMENTAL AND EARTH SCIENCE.**



THE INNOVATIVE SOLUTION FOR MOBILE MOISTURE MEASUREMENT

Note:
Only TRIME®-TDR guarantees excellent accuracy in high saturated soils with high pore water electrical conductivity.



Choose IMKO's robust PDA or use any commercially available PDA with Bluetooth® and Microsoft® Windows Mobile®

PICO-BT, the Bluetooth® module for the PICO sensors, is included with the PICO-TALK software for Microsoft® Windows Mobile®

With just one PICO-BT module you can collect the readings from a variety of sensors at different measuring locations. PICO-TALK recognises the serial number of the connected sensor and saves the reading in your system along with this information.

The TRIME-PICO64 soil moisture sensor with an integrated soil temperature measurement system.

- Large measuring volume
- The best solution for heterogeneous and stony soils

The TRIME-PICO32 soil moisture sensor with an integrated soil temperature measurement system.

- Ideal for irrigation control systems and soil moisture monitoring
- Perfect for sandy and loamy soils

The TRIME-PICO IPH tube access probe permits rapid, reliable, and non-destructive recording of water content profiles.

- Large measuring volume
- Ideal for soils with high conductivity

RAPID AND SIMPLE MEASUREMENTS

Simply insert your TRIME-PICO sensor into the ground and start the measurement process by pressing your PICO-TALK software's "MEAS" button. You receive an accurate moisture reading within only 2 seconds. In the case of buried sensors you also receive a reading for the soil temperature. The readings are saved directly in the system along with the time and date, enabling you to track what was measured when.



SAVE READINGS RELIABLY

You also have the option of giving a specific designation to measuring locations and saving the reading under this name.

CUSTOMISED CALIBRATION

TRIME-PICO sensors are supplied with precise soil calibration and can be used straightaway. If you prefer, you can perform the calibration process yourself and save the results in the sensor. PICO-TALK recognises the saved calibrations in the sensor and displays them in PICO-TALK for easy selection.

EFFORTLESS EXPORT OF READINGS

Do you want to use your readings in other systems? No problem. Your saved data can be exported easily in any application.

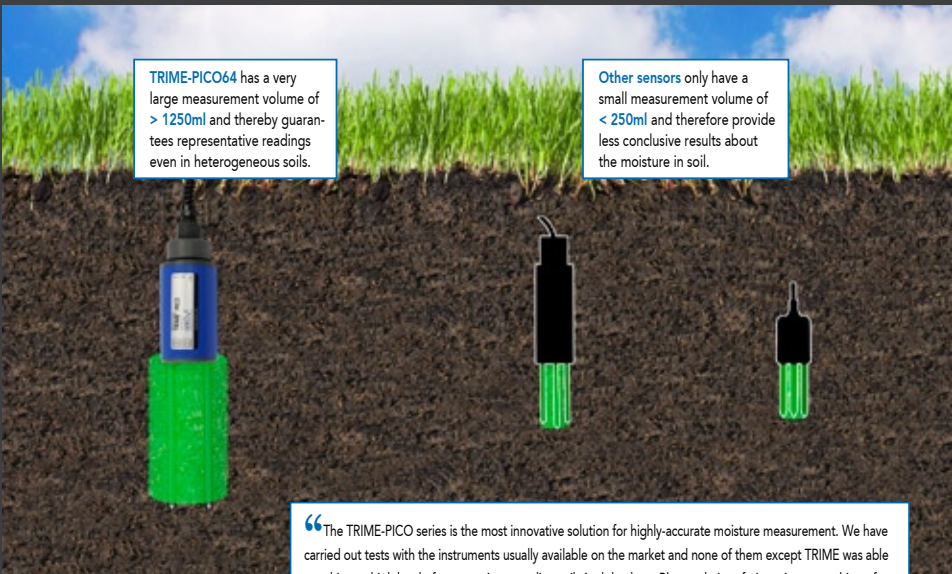


Your Bluetooth module PICO-BT includes our easy-to-use PICO-TALK software for Microsoft® Windows Mobile®. To make it even easier to operate we can provide the software in 3 different languages: German, English, and Chinese. PICO-TALK's individual menus are set out clearly and can all be reached with a single touch of your fingertip.

THE LATEST TECHNOLOGY FOR THE BEST MEASUREMENTS

TRIME-PICO IPH FOR ACCURATE MEASUREMENTS OF WATER CONTENT PROFILES

For the first time ever, the rapid, routine and non-destructive measurements of water content profiles is possible without the use of hazardous radioactive materials. The TRIME tube probes comprise a cylindrical PVC casing with four spring-mounted aluminium plates on opposite sides. The measurements are performed from within TECANAT plastic access tubes which can be left in the soil. The tubes must be installed prior to the taking the measurements by using a specially developed drilling set. Use up to 3m length of probe cable and tubes.





TRIME-PICO64 has a very large measurement volume of > 1250ml and thereby guarantees representative readings even in heterogeneous soils.

Other sensors only have a small measurement volume of < 250ml and therefore provide less conclusive results about the moisture in soil.

“The TRIME-PICO series is the most innovative solution for highly-accurate moisture measurement. We have carried out tests with the instruments usually available on the market and none of them except TRIME was able to achieve a high level of accuracy in very saline soil. And thanks to Bluetooth, interfering wires are a thing of the past in mobile applications in the field. Top marks from us for the TRIME measurement system.”
 Prof. Dr. Christof Hübner, University of Applied Sciences in Mannheim

Technical Data									
	TRIME®-PICO64			TRIME®-PICO32			TRIME®-PICO IPH T3/44		
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):									
conductivity range:	0..6dS/m	6..12dS/m	12..50dS/m	0..6dS/m	6..12dS/m	12..50dS/m	0..6dS/m	6..12dS/m	>12dS/m
Moisture range 0..40%:	±1%	±2%	with material specific calibration	±1%	±2%	with material specific calibration	±2%	±3%	with tube access probe T3C/44
Moisture range 40..70%:	±2%	±3%		±2%	±3%		±3%	±4%	
Repeating accuracy:	±0.2%	±0.3%		±0.2%	±0.3%		±0.3%	±0.5%	
Temperature caused drift of electronics (full range):	±0.3%								
Soil temperature measuring range:	-15°C...50°C								
Soil temperature measuring accuracy:	±0.2°C								
Measurement volume:	1,25L ± 160x100mm diameter			0,25L ± 110x50mm diameter			3,0L ± 180x150mm diameter		
Operating Temperature:	-15°C...50°C (extended temperature range on request)								
Calibration:	Calibration for a wide range of standard soil types (in accordance with Topp (equation))								
	standard calibration for most soils, customizable material specific calibration, storage of up to 15 user defined calibration curves, calibration of dielectric permittivity is possible			standard calibration for most soils, customizable material specific calibration, storage of up to 15 user defined calibration curves, calibration of dielectric permittivity is available			standard calibration for most soils, customizable material specific calibration, storage of up to 15 user defined calibration curves, calibration of dielectric permittivity is possible		
Probe body:	waterproof sealed PVC (IP68)								
Size:	155 x Ø63mm			155 x Ø32mm			166 x Ø32mm		
Rod length:	standard: 160mm			standard: 110mm			standard: 180mm		
Rod diameter:	6mm			3,5mm			—		
Interfaces:	IMP-BUS RS485 Analogue output: 2x 0..1V, 0(4)..20mA ¹ 0..100% vol. water content -40..+70°C soil temperatur			—			RS485 Analogue output: 2x 0..1V, 0(4)..20mA ¹ 0..100% vol. water content -40..+70°C soil temperatur		
Option 1 (RS485 & analogue):	1,5m cable with 7-pin female connector			—			3,5m cable with 7-pin female connector		
Option 2 (IMP-BUS):	5m cable with 4-pin female connector			—			—		
Option 3 (all interfaces):	5m cable with end splices (all interfaces)			—			—		
	Optional available for cable extension: E-BOX (cable extension box) ¹ Optional available for cable extension and current output: C-BOX (0..1V to 0(4)..20 mA converter box)								

Features PICO-BT module

Connectable Probes: PICO64, PICO32, PICO-IPH (measurement of soil profiles)
Class 2 Bluetooth® module, Bluetooth® specification 2.0 compatible
Up to 10 meter range
Internal rechargeable battery
Optimal power management
Operating Temperature: -20°C...70°C
Number of measurements with one charge: > 1500
Ni-MH (4 x 1.2V) (AA) Rechargeable Batteries, 1000mAh

Features Software PICO-TALK

Platform: Microsoft® Windows Mobile® 6.0 or 5.0 or Windows® CE
Easy to install and use
Stores many thousand measurements
Up to 15 user defined calibrations selectable
Intuitive user interface
Touch screen operation
3 different languages: German, English and Chinese
Requires less memory

ENVIRONMENTAL MONITORING



THE NEW GENERATION OF DATA LOGGERS



IMKO OFFERS A WIDE RANGE OF STANDARD METEOROLOGICAL AND HYDROLOGICAL SENSORS:



i.e. soil moisture, wind speed and direction, radiation, temperature, pH & Redox, water level plant sensors... and many other parameters.

- ✓ Up to 48 TRIME®-probes and other IMKO sensor modules are connectable
- ✓ 2 MByte data storage capacity
- ✓ Data transfer via cellular radio
- ✓ Internet data visualisation
- ✓ Robust, lightweight, weatherproof (IP67)
- ✓ Easy programming
- ✓ Ultra Low Power

WE CUSTOMIZE YOUR WEATHER STATION....



IMKO's weather stations are best known by meteorological experts all over the world. In addition to weather stations we offer a complete line of environmental sensors in best quality. The following system example comprises the parameters wind speed & direction, global radiation, barometric pressure, humidity & air temperature. Climate mast M2 incl. lightning rod Power supply system (solar or mains) Globelog datalogger incl. remote data transferred Power supply system (solar or mains)

- ✓ Climate mast in different heights available
- ✓ Choose the ideal sensor for your particular application: wind speed & direction, global radiation, barometric pressure, humidity & air temperature
- ✓ Dataloggers which works under extreme environmental conditions

....AND YOUR EDDY COVARIANCE SYSTEM



IMKO's Eddy Covariance system comprises:

- ✓ Gill HS50 or R3 3-dimensional ultrasonic wind sensor
- ✓ LI-COR 7500 Open Path CO₂/H₂O Analyser
- ✓ EDDY Software Accessories (climate mast, power supply, laptop, etc.)
- ✓ Additional measurement parameters can be easily integrated in an ENVIS system. Just plug and measure. No time-consuming programming required!
- ✓ Dataloggers which works under extreme environmental conditions

Thus IMKO is supplying a completely preconfigured, quality tested system for immediate start after the hardware set-up.

TRIME®-TDR – RECIPIENT OF MANY AWARDS

Innovation prizes such as the Eberle-Prize of the Federal State of Baden-Württemberg (1993) and the Silver Medal of the German Agricultural Society (DLG – 1999) give evidence on how successfully the high-tech potential of the TRIME®-TDR-technology has distinguished itself in practice. Numerous industrial and scientific projects confirm the advantages of the TRIME®-technology which by now has excellently performed under difficult conditions for 10 years at temperatures of up to 150°C and in application scenarios where other measuring systems failed to perform. You can find further information regarding the benefits of the TRIME®-TDR, in comparison to moisture measurements conducted on the basis of conventional capacitive methods or microwave technology, on our homepage www.imko.de under the topic „About TRIME-TDR“.



Silver Medal Innovation Award 1999 of the DLG (German Agricultural Society)



Innovation Award of the State of Baden-Württemberg



certified by the DLG (German Agricultural Society)