

# TRIME<sup>®</sup>-FM

## Mobile moisture meter



- The handy TRIME-FM displays direct %vol moisture content and TDR level at the touch of a button
- Compact and lightweight device for field use
- A wide range of 2- and 3-rod probes

# TRIME<sup>®</sup>-FM2 or FM3

## Available probes and accessories

The TRIME-FM is the standard field measuring device for volumetric moisture in porous materials. The broad range of applications in even the most saline materials is without equal.

The intelligent automatic TDR-curve reading electronics are arranged in the robust and waterproof (IP 67) aluminium housing, withstanding even the highest demands of all-day field use.

Its speed and easy push-button operation is unsurpassed. In less than 10 seconds, the water content is shown in % by volume, TDR-level (as a measure of salinity). The data is displayed clearly on a clear 4-line LCD panel.

Engineered to allow maximum flexibility and extension potential, a wide variety of probe types can be connected to the FM-device. A built-in EEPROM in the probe connector case stores all probe parameters such as type and cable length.

The TRIME-FM2 version is designed for the 2-rod probes and the FM3 version for all other TRIME probe types. Every probe must be adapted to the FM prior to use. 2-rod probes are not compatible with FM3 versions and vice versa.

The TRIME-FM has a RS232/V24 for an external power supply (7..15V/DC, 250mA) and connection to a PC. The 0..1V analogue output allows optional connection to external devices such as dataloggers.

> For information on measurement accuracy and range please refer to the connectable probe types.

### Technical Data TRIME-FM

Manual operation with 4-line-LCD panel for showing water content, TDR-level (conductivity) and device mode.

Power supply: 7V..15V-DC, 600mA/h battery capacity. Full battery is sufficient for up to 300 measurement cycles.

Supply current: 8mA standby, 250mA during 10..15sec. measuring time

Resolution: 0.1%

Repeating accuracy: 0.3%

Temperature range: -15°C...50°C, wider temperature ranges on request!

Temperature caused value drift: max. +-0.5%

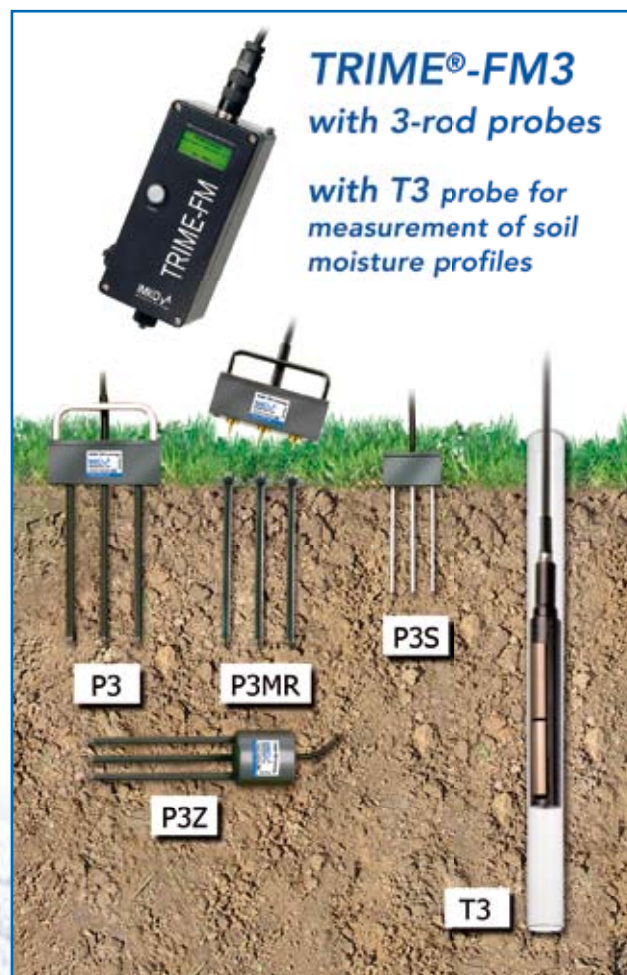
Standard interface: 0..1V analogue output and RS232/V24

Calibration data: calibrated for mineral soils, but individually adaptable per software

Case: weatherproof, robust aluminium diecast (IP67)

Dimensions: 210 x 90 x 60mm, 875g

For information on the measuring accuracy and range as well as the tolerable range of bulk electrical conductivity please refer to the corresponding probe.



# TRIME®-P

## Rod probe family

- Easy to handle
- A wide variety of probe designs and dimensions
- Robust and field-proven

IMKO offers high-quality 2- and 3-rod probes of different dimensions for the most varied measuring applications. The standard length of the P2 probe is 10cm and 5cm for the P2G and P3. The arrangement of the rods can be linear or triangular, with a rectangular or round probe body. All rods are PVC-coated to obtain best measuring results even in saline materials (bulk soil electrical conductivity up to 2dS/m).

For very high salinities, special **high-conductivity-probes (C-versions)** are available.

To take measurements, the probes are simply inserted into the sample material.

### Measuring volume

The measuring volume of the rod probes can be described as a „cylinder of influence“ with a length comparable to the rods' length and a diameter comparable to the probe bodies' diameter.

### Accuracy

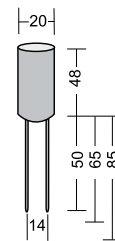
In soils, a measuring accuracy better than 1vol.-% is possible, provided a close contact and no air gaps exist between the measured material and rods.

### Remarks

The Probes P2G, P3 and P3S are designed for use in the upper soil area. Probes P2Z, P2 and P3Z are for use in soil or below soil. 2-rod-probes are not compatible with the TRIME-FM3 version and vice versa. 3-rod probes have the same accuracy and resolution as 2-rod probes, but they can be operated in conjunction with a TRIME-T3 tube

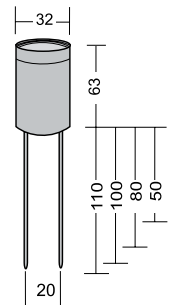
### P2 family

Probe P2D



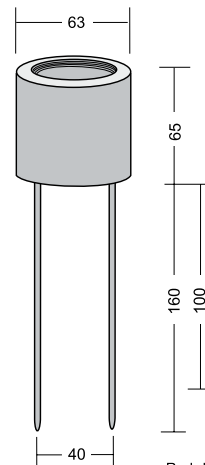
Rod diameter: 2.4mm

Probe P2



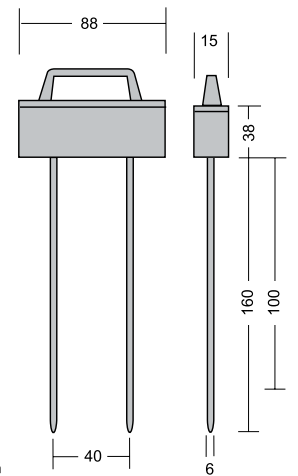
Rod diameter: 3.5mm

Probe P2Z



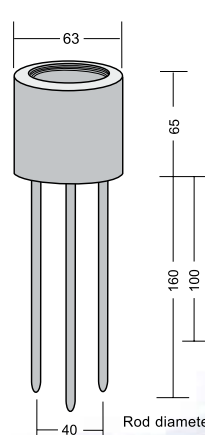
Rod diameter: 6mm

Probe P2G



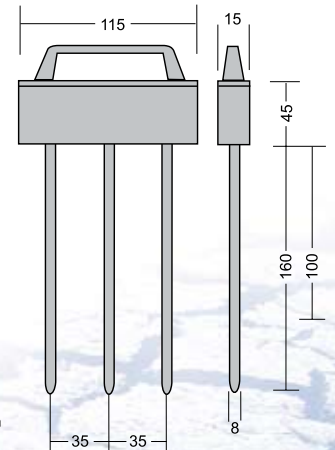
### P3 family

Probe P3Z

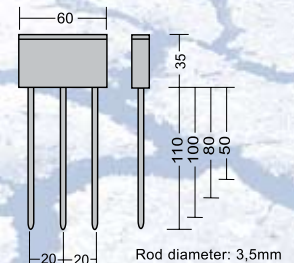


Rod diameter: 8mm

Probe P3



Probe P3S



Rod diameter: 3.5mm