

Moisture measuring systems



IMKO (TDR)

111100 Field measuring device (Trime FM)



Hand device for volumetric water content measurement acc. to Time Domain Reflectometry (TDR) principle.

Hand operation with LCD and RS 232/V24 interface for operation via connected computer

Run from battery

Version P2 for standard probes P2, P2Z and P2M

Aluminium protective casing IP 65, with carrier bag and boring tools for probe installation

Technical Parameters:

Measuring range: 0 ... 95% v/v water content

Conductivity range: 0 ... 6 ms/cm for P2 probes

Precision: +/- 1 ... +/- 3% depending on probe type and water content

Temperature range: - 15 °C ... + 50 °C

Capacity: ca. 300 measurements per one accumulator charge

IMKO (TDR)

111710 TDR probe Trime IT

111810 TDR probe Trime IC (for higher conductivity)



Intelligent soil probes for determination of volumetric water content and electric conductivity.

Technical parameters:

	Trime IT	Trime IC
Probe diameter	32 mm	32 mm
Antenna height	110 mm	110 mm
Probe height	? 190 mm (depending on installation depth)	? 190 mm (depending on installation depth)
Measuring range of volumetric water content	0 ... 95%	0 ... 95%
Precision of volumetric water content	0 ... 40% v/v +/- 1% 40 ... 70% v/v +/- 2%	0 ... 40% v/v +/- 2% 40 ... 70% v/v +/- 3%
Calibration data	free, selected and loadable	free, selected and loadable
Measuring range of conductivity	0 ... 0,2 S/m	0 ... 1 S/m
Temperature range	10°C ... + 50°C	10°C ... +50°C
Voltage	7 ... 15 V DC	7 ... 15 V DC
Amperage	8 mA standby, 250 mA during 10 ... 15 s measuring time	8 mA standby, 250 mA during 10 ... 15 s measuring time
Output volumetric water content	analogue 0 ... 1 V or 0 ... 20 mA	analogue 0 ... 1 V or 0 ... 20 mA
Output conductivity	via RS 232	via RS 232
Flex length (standard)	5 m	5 m
Optional connection	Bus system IMP 232 Micronet	Bus system IMP 232 Micronet

Delta-T Devices

115000 Theta-Probe ML2



The Theta Probe ML2 is a soil moisture measuring probe for determining, at 1000 MHz, the relative permittivity and the ionic conductivity of the soil between the electrodes and deriving therefrom a measuring signal in the range of 0 ... 1 V.

The soil volumetric water content is derived via calibration functions.

The probe can be operated with either data logger or hand device.

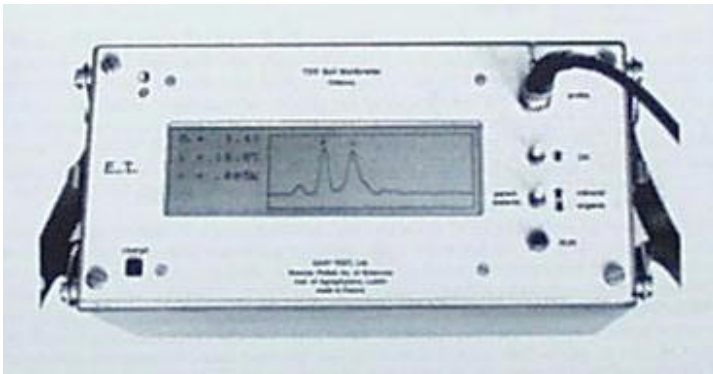
Additional, the calibration of data measure can be fed for mineral or organic soils

Technical Parameters:

Measuring range of vol. water content	0 ... 100%
Accuracy of measurement in moisture range 5 ... 60 % in temperature range 0 ... 40 °C	<ul style="list-style-type: none">○ < +/-2% of final value after calibration for defined soil type○ +/-5% of final value with internal calibration for standard soils
Recorded soil layer	ca. 7 cm
Environmental effects	Long-term resistance when buried in ground and to water, no failure or corrosion
Stabilisation time	30s after switch-on
Time of operation	Continuous operation
Operating voltage	5 ... 15 V DC uncontrolled
Current consumption	typ. 20 mA
Output signal	0 ... 1 V DC at > 10 kOhm in the range of 0 ... 50 % vol. water content (non-linear)
Flex	Standard 5 m, max. 100 m
Sizes	Probe body diam. 40 mm x 125 mm, 4 antenna rods each 60 mm long
Optional accessories	<ul style="list-style-type: none">○ Screw-on extension tubes, 50 cm and 100 cm○ Moisture meter HH2

EASY Test (TDR)

- 112100 Field measuring device FOM/m
- 112200 Field measuring device FOM/mts
- 112300 Field measuring device D-LOG/mts



Field measuring device FOM/m

TDR hand device for determination of volumetric water content with a field probe FP/m, calibration can be switched for mineral and organic soils.
Measuring data scale: 3 ½ digit display

Field measuring device FOM/mts

TDR hand device for determination of volumetric water content, temperature and electric conductivity with a field probe FP/mts, calibration can be switched for mineral and organic soils.
Measuring data scale and TDR impulse account by LCD display.

Field measuring device D-LOG/m(p) ts

Computer controlled TDR measuring device for determination of volumetric water content optional of suction probe, temperature and electric conductivity for connection to field probes FP/mts via multiplexer, D-MUX/n/m(p) ts, for operation with IBM compatible master PC (RS 232 C serial interface). In one network up to 20 D-LOG/mpts can be operated on one PC.

Technical parameters:

	FOM/m	FOM/mts	D-LOG/m (p) ts
Measuring range	0 ... 100% v/v water content	Water content: 0 ... 100% v/v +/-2% Temperature: -20 ... +50°C, +/- 0,3°C Conductivity: 0,001-1 S/m, +/- 2%	Water content: 0...100% v/v +/-2% Temperature: -20...+60C, +/-0.3C Conductivity: 0.000-80mS/m, +/-5%
Absolute error	+/-2% from value		
Resolution	0.1% from measuring range		
Measuring time	ca. 15s	ca. 20s	ca 35s
Temperature range	0...+50°C	0...+50°C	0...+40°C
Capacity	ca.500 measurements per accumulator	ca.150 measurements per accumulator	
Weight	ca. 3.75kg	ca. 3.75kg	ca. 3kg
			12V; Standby 3mA measurements 600mA

EASY Test (TDR)

112400 TDR field probe FP/m
112500 TDR field probe FP/mts



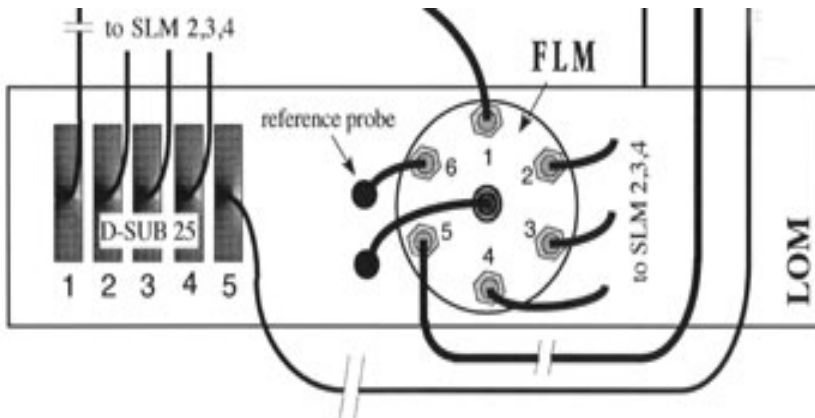
TDR field probe FP/m, FP/mts

Soil probe for use with field measuring devices FOM/m and FOM/mts, respectively, to determine volumetric water content, temperature and electric conductivity.

Diameter:	20mm
Rod height:	100mm
Probe height:	15...400cm
Cord length:	6m from sensor to BNC connector

EASY Test (TDR)

112600 Laboratory measuring device LOM/RS 9 channels



Laboratory measuring device LOM/mpts

Laboratory measuring device for connection to IBM-compatible computer for determination of volumetric water content, temperature and electric conductivity with laboratory probes PL/mts via multiplexer MUX/n/mts.

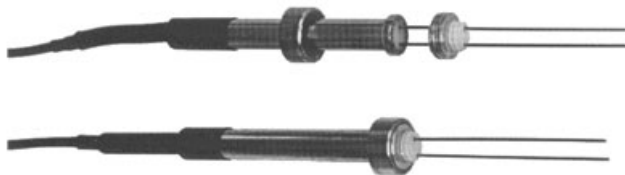
Interface to master PC RS 232

Number of multiplexers:	1 ... 10
Measuring range:	water content 0 ... 100%, +/- 2%
Temperature:	- 20 ... + 60 °C, +/- 0.3 °C
Conductivity:	0.000 ... 1 S/m, +/- 5%
Measuring time:	ca. 11s
Power consumption:	220 V / 10 W
Size:	33 x 34 x 7.4 cm
Weight:	ca. 3.5

EASY Test (TDR)

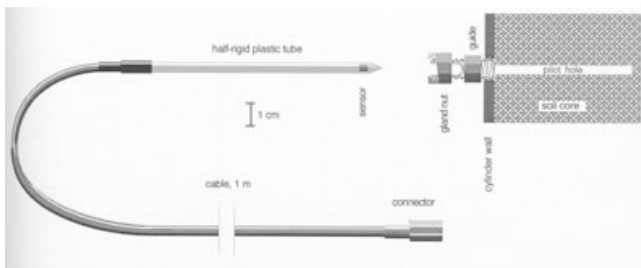
112700	Laboratory probe LP/ms
112800	Laboratory probe LP/t
112900	Laboratory probe LP/p

Soil probes for use with laboratory measuring device LOM/mpts for determination of volumetric water content, electric conductivity, temperature and water tension.



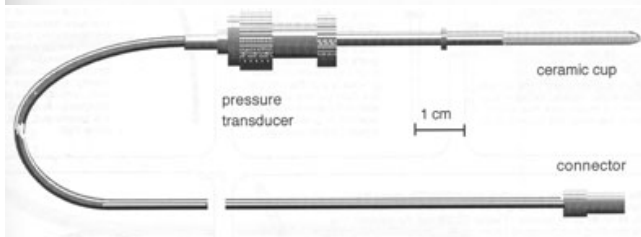
TDR laboratory probe LP/ms

Rod height: 53 mm
Rod distance: 5 mm
Cord length: 1 m



Temperature probe LP/t

Measuring range: - 20 ... + 60 °C
Resolution: 0.1 °C
Cord length: 1 m



Tensiometer LP/p

Measuring range: 0 ... ca. 950 mbar
Resolution: 1 mbar
Precision: +/-3mbar
Diameter: 8 mm
Cord length: 1 m