





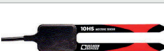



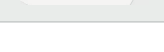


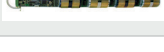






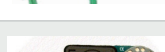







System name	Manufacturer	Measurement principle ^{*1}	Probe length, integral volume ^{*2}	Range	T ^{*3}	Image
Trase TDR Trase	TRASE	TDR (tangent intersection of pulse in 10 ps)	20 cm, ≈ 1000 cm ³	0 – 1 m ³ m ⁻³		
Trime Pico32 Pico32	IMKO	TDR (time sampling of 1GHz TDR pulse in 3 ps)	11 cm, ≈ 250 cm ³	0 – 1 m ³ m ⁻³	•	
Trime Pico64 Pico64	IMKO		16 cm, ≈ 1250 cm ³	0 – 1 m ³ m ⁻³	•	
Trime T3P T3P	IMKO	(11 cm guides on tube probe)	11 cm, ≈ 1000 cm ³	0 – 1 m ³ m ⁻³		
ThetaProbe ML2x	Delta-T	I (impedance of 100 MHz signal)	6 cm, ≈ 75 cm ³	0 – 0.5 m ³ m ⁻³	•	
HydraProbe Hydra	Stevens	I (impedance of 50 MHz signal)	4,5 cm, ≈ 40 cm ³	0 – 1 m ³ m ⁻³	•	
10HS	METER (Decagon)	I (impedance of 70 MHz signal)	10 cm, ≈ 1300 cm ³	0 – 0.57 m ³ m ⁻³		
5TM	METER (Decagon)		5 cm, ≈ 715 cm ³	0 – 1 m ³ m ⁻³	•	
EC5	METER (Decagon)		5 cm, ≈ 250 cm ³	0 – 1 m ³ m ⁻³		
WET 2 WET	Delta-T	I (20 MHz signal on central rod)	6.8 cm, ≈ 500 cm ³	0 – 1 m ³ m ⁻³	•	
Profile Probe PR2/6 PR2	Delta-T	I (100 MHz signal on pairs of steel rings)	6x along tube probe 5 cm, ≈ 3100 cm ³	0 – 1 m ³ m ⁻³		
EnvioSCAN JKI	Sentek	I (100-500 MHz signal on pairs of steel rings)	≈ 6 cm, ≈ 350 cm ³	0 – 0.65 m ³ m ⁻³		
TMS3 buriable TMS3	Tomst	TDT (no. of pulses received of 2.5 GHz transmission frequency)	≈ 10 cm	0 – 1 m ³ m ⁻³	•	
TMS Tomst	Tomst		≈ 10 cm	0 – 1 m ³ m ⁻³	•	
SMT100 SMT	Truebner	Freq. of TDT ring oscillator	≈ 10 cm	0 – 0.6 m ³ m ⁻³	•	

System name	Manufacturer	Measurement principle ^{*1}	Probe length, integral volume ^{*2}	Range	T ^{*3}	Image
T4	METER (UMS)	Direct tension of water at pressure transducer	6 cm	0 – 850 hPa		
T5	METER (UMS)		0.6 cm	0 – >1000 hPa		
T8	METER (UMS)		6 cm	0 – 850 hPa	•	
TS1 TS	METER (UMS)		6 cm	0 – 850 hPa	•	
SIS	METER (UMS)	Electric resistance in equivalent porous medium	6 cm	0 – 2000 hPa	•	
WATER-MARK Gypsum	Irrrometer		8.2 cm	0 – 2000 hPa		
MPS-1	METER (Decagon)	I (impedance of 70 MHz signal in equivalent porous medium)	4.5 cm	100 - 5000 hPa	•	
MPS-2	METER (Decagon)		4.5 cm	90 – ∞ hPa	•	
MPS-6	METER (Decagon)		4.5 cm	90 – ∞ hPa	•	
TensioMark TM	ecoTech	Heat pulse dissipation in porous membrane	1 cm	1 – 6500 hPa	•	
Heat Dissipation HeatD	bambach		1 cm	1 – 6500 hPa	•	
pFMeter	ecoTech	Heat pulse dissipation in equivalent porous medium	4 cm	1 – ∞ hPa	•	
Polymer Tensiometer POT	Wageningen University	Direct tension of hydrophile polymer	3 cm	0 – 1.6 MPa		

*1) TDR = time-domain reflectometry, I = impedance measurement of capacitance, TDT = time-domain transmission.
*2) Est. assuming a cylindrical volume. *3) Probe also measures temperature. Image copyrights by the manufacturers.

Soil water content

Matrix potential