

PR2 Profile Probe

Multi Depth Soil Moisture Probe



Dynamax

No other soil moisture probe system enables you to monitor your soil water profiles with such ease and flexibility. Install an access tube into the soil, insert the PR2 Profile Probe and press the HH2 [Read] button to display an instantaneous reading, or connect the PR2 to a data logger (GP2, DL6 or DL2e) and leave the system to record soil moisture changes over time.

The PR2 soil moisture probe is built around patented sensing technology which provides unprecedented performance in all soil types, with minimal influence from either salinity or temperature. The PR2/4 model measures soil moisture at 4 depths down to 40 cm or the PR2/6 measures at 6 depths down to 100 cm.

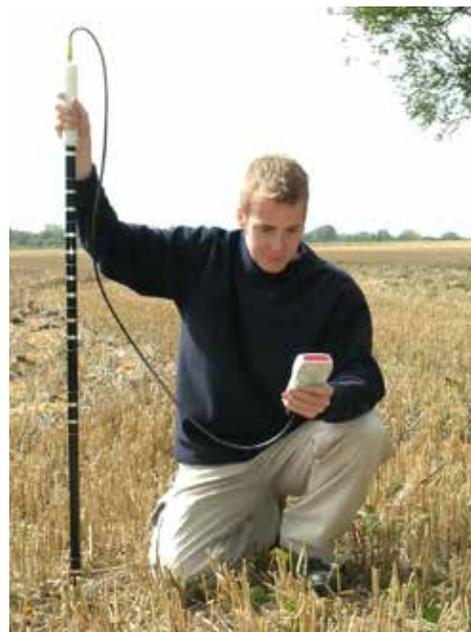
The PR2 Profile Probe access tube requires an installation hole 27 mm in diameter, allowing easy installation and minimal soil disturbance. Access tubes are manufactured to strict tolerances and are exceptionally strong and durable in the soil. Correct installation is essential and we recommend the use of our specially designed augering equipment.

Dynamax augering kits help you achieve the best possible access tube installation in virtually any soil. Profile Probes are used in access tubes inserted into carefully pre-augered holes in the soil. Correct access tube installation is absolutely vital for accurate measurement of soil moisture profiles.

To get the best performance from Profile Probes, the augered holes should be straight, smooth sided and the correct diameter. The goal is to produce optimal contact between the soil and the wall of the access tube. However, if substantial stoniness or compaction, or the presence of voids, foreign bodies, or soil instability are features of a particular site, it may not always be possible to install an access tube successfully.

PR2 Profile Probe - SDI 12 version

The PR2 SDI-12 is a new digital alternative to the well-established analogue PR2 Profile Probe. It shares the many strengths of the analogue PR2 soil moisture probe, but with the addition of SDI-12 compatibility - allowing integration into new and existing SDI-12 systems.



Features

- Available in two sizes to measure to a depth of 40 cm or 100 cm
- Soil moisture content - not just trends
- Highly reliable field-proven instrument
- Low salinity and temperature sensitivity
- Portable meter option for convenient multi-site measurement
- Out of the box solution - supplied with calibrations for common soil types
- IP68 protected connectors for versatile connectivity
- Uses access tubes for easy probe insertion and removal



Specifications

Model types	PR2/4 and PR2/6	
Sensing depths	PR2/6: 10, 20, 30, 40, 60, 100cm PR2/4: 10, 20, 30, 40cm (nominal)	
Measurement	Volumetric soil moisture content V ($m^3.m^{-3}$ or % vol)	
Range	Accuracy figures apply from 0 to $0.4 m^3.m^{-3}$ Full range is from 0.0 to $1.0 m^3.m^{-3}$	
Accuracy ^[1] 0.0 to $0.4 m^3.m^{-3}$	$\pm 0.04 m^3.m^{-3}$, 0 to 40°C	Typical, after calibration to a specific soil type
	$\pm 0.06 m^3.m^{-3}$, 0 to 40°C	Typical, using the generalized soil calibrations in 'normal' soils
Salinity errors	Included in above accuracy figures (50 to 400 $mS.m^{-1}$, 0.5 to 4 $dS.m^{-1}$, pore water conductivity).	
Soil sampling volume	Vertically: ~95% sensitivity within $\pm 50mm$ of upper ring of each pair. Horizontally: ~95% sensitivity within a cylinder of radius 100mm.	

Environment	0 to 40°C for full accuracy specification, -20 to +70°C full operating range. IP67 rated when installed in access tube.
Response time	Full accuracy achieved within 1 second ^[2]
Power requirement	Minimum: 5.5V DC with 2m cable, 7.5V with 100m. Maximum: 15V DC. PR2/4 consumption: < 80 mA PR2/6 consumption: < 120 mA
Outputs	4 (PR2/4) or 6 (PR2/6) analogue voltage outputs: 0 to 1.0V DC corresponding to 0 to $0.6 m^3.m^{-3}$ (mineral calibration).
Cable	Standard and extension cables (see ordering information)
Construction	25.4mm polycarbonate with pairs of stainless steel rings.
Size/Weight	PR2/4 length: 29" Weight: 1.3 lbs. PR2/6 length: 53" Weight: 2 lbs.

Ordering Information

PR2/4

Profile Probe - short, comprises 4 x integral soil moisture sensors 40 cm long

PR2/6

Profile Probe - long, comprises 6 x integral soil moisture sensors 100 cm long

ATS1

Access Tube for PR2/4. includes cap, bung and collar

ATL1

Access Tube for PR2/6. includes cap, bung and collar

PR-ASK1-S

Augering starter kit (short) Includes: pilot auger, stabilization plate, and access tube insertion rod.

PR-ASK1-L

Augering starter kit (long) Includes: pilot auger, finishing auger, stabilization plate, access tube insertion rod, and mallet.

PR-AKC1

Complete augering kit Includes; pilot auger, finishing auger, stabilization plate, access tube insertion rod, mallet, flexicanes, carrying bag, and cleaning rod

PR-EXK1

Access tube extraction kit. Includes; ladder jack with bag, jack foot, strap, and access tube expansion clamp with lever bar.