

ADCON SM1 Soil Moisture Sensor

The SM1 soil moisture probe is an extremely flexible system, offering capacitance based measurement of soil moisture plus temperature monitoring.

Available in a variety of lengths, starting with 30cm and ending at 150cm, the SM1 features one soil moisture sensor every 10cm. As installation method both access tube and slurry installation are supported. The sphere of influence of the sensor rings is approx. 10cm in radius around the access tube.

Depending on the length of the sensor up to 5 temperature sensors are available. The 30, 60, 90, 120 and 150cm probes have their first temperature sensor located at 15cm and every additional sensor with a spacing of 30cm, thus at 45, 75, 105 and 135cm respectively.

All signals are delivered through the SDI-12 protocol. A 5m cable is included.



Applications

- Irrigation
- Landfills
- Geological observations



Technical Data

Access tube	32mm \varnothing	Resolution	0,1%
Top cap	82mm \varnothing	Accuracy	$\pm 2\%$
Protection class	IP-67	Measuring method	capacitance
Temperature range	-55°C ... +70°C	Number of sensors	1 sensor every 10cm
Output signal	SDI-12	Soil temperature:	
Cable	5m, Polyethylene (PE)	Measuring range	-55°C ... +70°C
Probe material	UV resistant PVC	Resolution	0,125°C
Connector	7-pin M9 male Binder connector	Accuracy	$\pm 0,5^\circ\text{C}$ (0 .. 70°C)
Power supply	5,6V .. 12VDC	Temperature sensors	up to 5: one every 30cm; at 15, 45, 75, 105 and 135cm
Soil moisture:		Available probe lengths	30, 60, 90, 120, 150cm
Measuring range	0 ... 100%		