# **EnviroSCAN** Probe

'proven quality, enduring value'





### The Proven All-Rounder

The award winning EnviroSCAN probe is the flagship product of Sentek. It provides the user with great flexibility for precision monitoring of water and salinity at multiple depths in a soil profile.

The EnviroSCAN probe first made its mark in irrigated agriculture, resulting in water savings of 30-50% and substantial yield and quality benefits. Today it is widely used in all forms of agriculture (irrigated and dryland), environmental applications, research and education, as well as turf, parks and gardens.

The EnviroSCAN probe is the only commercially available product that allows for monitoring to great depths (up to 40 metres) using the same profiling probe.

### **EnviroSCAN™** Probe

Features of the probe include:

- Multiple sensors with adjustable depth placement (at 10cm increments)
- Monitoring from shallow depths (0-10cm) to deep installations (up to 40 metres)
- Flexible probe lengths which can be customised to suit the application (probe length adjustable in the field)
- Up to 16 sensors on one probe (moisture or moisture/salinity)
- In-built probe orientation and depth settings to enhance sensor repeatability
- Full serviceability
- Flexible connectivity for wide range of data retrieval options
- Soil specific calibrations can be applied to individual sensors

### Installation

Probes are installed into customised access tubes to allow for:



- Improved sensor accuracy through precise wall thickness and diameter of access tube
- Protection of sensors by avoiding direct soil contact
- Specific sealing to ensure long-term operation
- Full in-field serviceability without impacting on data integrity

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EnviroSCAN Flat Cap Probe

EnviroSCAN Screw Cap Probe

Installation of access tubes is carried out using specialised tools to ensure minimum soil disturbance during installation and hence measurement of an undisturbed soil profile.

Diviner 2000 • EnviroSCAN • EasyAG • TriSCAN • SentekPLUS • SentekRT6 • SentekSOLO • IrriMAX • Sentek SoluSAMPLER • SentekMULTI

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## **Probe Sealing**



The bottom of the access tube is typically sealed using a double-ringed expandable rubber bung, providing 2 sealing points and preventing underground moisture from entering the tube. A slurry cap is also available.

The top of the access tube is sealed with 2 different top cap designs, depending on application.



### **EnviroSCAN**<sup>™</sup> Screw Cap

- Top cap protrudes above the soil surface
- Easy to find and readily accessible
- Tightly sealed with a rubber O-ring
- Simply un-screws, giving easy access to the probe for servicing

### **EnviroSCAN™ Flat Cap**

- Allows for the probe to sit flush with the ground surface
- Water-tight, 3 point sealing design
- Provides ready access to the probe for servicing
- Avoids potentially costly damage from machinery

### **Specifications**

Product	Maximum Sensors Per Probe	Current consumption	Resolution	Operating Temperature	Measurement time per sensor	Access Tube Diameter
Sentek 5-wire (RT6)	16	0mA @ standby 80mA @ sampling 12V	>1:10000 Moisture	-30 <sup>o</sup> to +85 <sup>o</sup> Celsius	1.1 sec	56.5 mm
Sentek SOLO	16	1mA @ sleep 120mA @ sampling 6V DC	>1:10000 Moisture >1:6000 TriSCAN	-20 <sup>o</sup> to + 75 <sup>o</sup> Celsius	50mS Moisture 90mS TriSCAN	56.5 mm
Sentek PLUS	16	500μA @ sleep 100mA @ sampling 12V DC	>1:10000 Moisture >1:6000 TriSCAN	-20 <sup>°</sup> to + 75 <sup>°</sup> Celsius	50mS Moisture 90mS TriSCAN	56.5 mm
Sentek MULTI	16	500μA @ sleep 100mA @ sampling 12V DC	>1:10000 Moisture >1:6000 TriSCAN	-20 <sup>o</sup> to + 75 <sup>o</sup> Celsius	50mS Moisture 90mS TriSCAN	56.5 mm
Modbus RS232 / RS485	16	500μA @ sleep 100mA @ sampling 12V DC	>1:10000 Moisture >1:6000 TriSCAN	-20 <sup>o</sup> to + 75 <sup>o</sup> Celsius	50mS Moisture 90mS TriSCAN	56.5 mm
SDI-12	16	500μA @ sleep 100mA @ sampling 12V DC	>1:10000 Moisture >1:6000 TriSCAN	-20 <sup>°</sup> to + 75 <sup>°</sup> Celsius	50mS Moisture 90mS TriSCAN	56.5 mm
Voltage	8**	0mA @ sleep <2mA@standby 100mA @ sampling 4.5V - 15V DC	1:4096	0° to + 70° Celsius	50mS Moisture 50mS TriSCAN*	56.5 mm

<sup>\*</sup>TriSCAN sensors not recommended for use on Voltage probes due to maximum of 4 outputs per probe
\*\*Note, voltage interface only supports 4 outputs

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