

# WATER & SOIL

## Septum Tensiometers

**Low cost, manual system**

**Ideal for multiple point measurements**

**Use just one Needle Sensor with unlimited septum tensiometers**

**Display readings with a HydroSense meter**

**Measures water availability to the plant**

**Ideal for irrigation management**



The Skye Instruments soil moisture measurement range includes both dial and electronic tensiometers to suit every budget.

The electronic versions come in manual or automatic recording systems. The septum tensiometers are part of the manual electronic system, ideal for low cost measurements at many installation points.

The septum tensiometers consist of the same durable clear plastic shaft and porous ceramic bulb as all Skye tensiometer versions, but have their top apertures sealed by

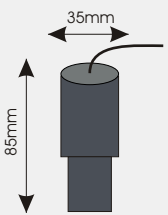
a specially formulated rubber bung. This bung allows a needle type pressure sensor to be inserted into the tensiometer shaft to take measurements, and reseals itself when the needle is removed. The same rubber bung can be reused for around 50 repeated measurements before replacement.

The needle sensor itself consists of a high specification pressure transducer housed in a Delrin and aluminium head which is fully weatherproof. The head is designed to fit neatly over the top of the tensiometers for

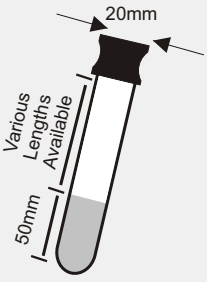
measurement purposes. This means that a single needle sensor can be used to take instantaneous readings from an unlimited number of septum tensiometers at different sites. The hypodermic needle which pierces the rubber bung can be easily replaced. Outputs from the septum tensiometer sensor can be read and stored in memory using the Skye HydroSense meter, and later downloaded to a PC.

Guidance on the installation and use of tensiometers is available from Skye's Soil Moisture Measurement Notes, please ask for a copy.

## NEEDLE SENSOR SPECIFICATIONS

Dimensions	Operating range	Cable length	Measurement range	Calibration & Output Details
	-20 to 70 C	2m standard (longer if required) with connector suitable for a HydroSense meter	0 - 1000mbar (hPa)	The needle sensor is fitted with a low pressure transducer stabilised for temperature and linearity. The output is ratiometric for excitation voltage, but is usually calibrated at 5 volts. The transducer behaves as a 'bridge' type sensor and is suitable for connection to any meter or logger with differential voltage inputs. DataHogs and The HydroSense meter is designed for these sensors.
Housing		Weight		
Black delrin, and black anodised aluminium  The needle sensor is designed for use with the HydroSense, but is equally suitable for use with other equipment. It can be supplied wire-ended if required		Approximately 150 grams		

## SEPTUM TENSIO METER SPECIFICATION

Shaft dimensions	Shaft material
	Clear acrylic - lengths 20cm to 100cms  Porous ceramic bulb  Rubber septum stopper

## ORDERING INFORMATION

### Needle Sensor

SKT 670/1 Needle sensor with HydroSense connector

### Septum Tensiometer

SKT 690/n where 'n' is required length. e.g. SKT 690/20 for a 20cm tensiometer

### Meter

SKT 660 HydroSense logging meter

### Recommended Accessories

TEN/5 Syringe and filling tube recommended for filling and installing all tensiometers

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