



Aquaflex Sensor

Part # SI.99

The AQUAFLEX Sensor uses the unique AQUAFLEX measurement technique with a 3m (10') long flexible tape to provide measurement of a volume of 6 litres (370 cubic inches) of soil.

This AQUAFLEX Sensor is specially designed for connection to the AQUAFLEX Handheld Reader and third party controllers, dataloggers etc.

The Sensor is installed at the required depth and the connecting data cable is brought to the surface to allow connection to the desired device (AQUAFLEX Handheld Reader, third party datalogger, controller etc).



The Sensor has multiple outputs of soil moisture (in volumetric percent) and soil temperature:

- S 4 to 20mA:** two separate outputs for soil moisture and soil temperature. For connection to irrigation controllers, telemetry systems etc.
- S Frequency:** for connection to pulse inputs (e.g. a flow meter input in an irrigation controller). Only soil moisture can be accessed from this sensor output.

AQUAFLEX

- S Extremely robust and reliable for every application**
- S Easy to install and operate**
- S Maintenance free**

AQUAFLEX

Highly recommended for effective water management.

Available for every application:

- S** Golf courses
- S** Tennis courts
- S** Cricket grounds
- S** Football stadiums
- S** Vineyards
- S** Orchards
- S** Arable crops
- S** Biofilters
- S** Compost
- S** Landfill
- S** Botanical gardens
- S** Parks & Reserves
- S** Hydrological monitoring
- S** Meteorological monitoring



Specifications

Power Supply Voltage	+6.0 to +26 Volts, DC
Power Supply Current	10mA average, 150mA peak (for 60 milliseconds during measurement) plus two current loops of up to 20mA each
4-20mA outputs	<p>Moisture Output 4-20mA representing the moisture range 0-60%</p> <p>Temperature Output 4-20mA representing the temperature range -10 to 50 °C</p> <p>Maximum load resistance S 250 Ω with 9 Volts supply. S 1 kΩ with 24 Volts supply.</p> <p>The 4-20mA signals may be converted to voltage signals by connecting external resistors across the 4-20mA outputs. Using a 125Ω resistor results in a 0.5 to 2.5V range.</p>
Frequency Output Signal (Soil Moisture Only)	0 to 5 volts logic signal 10 pulses per minute = 0% Volumetric Soil Moisture Content 130 pulses per minute = 60% Volumetric Soil Moisture Content Special frequency ranges are available on request
Time To Measure	0.8 seconds after power supplied (typical) - 1 second maximum
Time Between Measurements	1 minute if power applied constantly
Operating Temperature	-10 to 40°C (14 to 104°F)
Soil Moisture Measurement	
Range	0 to 60% volumetric moisture content
Precision / Repeatability	± 0.5% volumetric moisture content
Accuracy	± 2% volumetric moisture content
Soil Temperature Measurement	The temperature is measured at the body of the sensor, not along the moisture-sensing cable
Range	-10 to 50°C (14 to 122°F)
Accuracy	± 0.5°C (0.9°F)

Options Available

S Connector for use with AQUAFLEX Handheld Readers



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