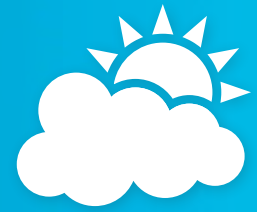


Water Content Reflectometer



SPECIFICATIONS	
<i>Specifications subject to change without notice</i>	
Parameters	Specifications
Output	CS625: 0 to 3.3 V square wave with frequency dependent on water content. CS616: ± 0.7 volt square wave with frequency dependent on water content
Power	65 milliamps @ 12 Vdc when enabled, 45 microamps quiescent typical
Measurement Time	0.50 milliseconds typical
Enable Voltage	4 Vdc minimum, 18 Vdc maximum
Maximum cable	1000 feet (305 m)
Electromagnetic Compatibility	Compliant with performance criteria available upon request. RF emissions are below EN55022 limits if the sensor is enabled less than 0.6 ms and measurements are made at a 1 Hz (1 per second) or slower frequency. The sensor meets EN61326 requirements for protection against electrostatic discharge and surge.
Dimensions	
Rods	300 mm (11.8") long 3.2 mm (0.13") diameter 32mm (1.3") spacing
Probe Head	85 mm x 63 mm x 18 mm (3.3" x 2.5" x 0.7")
Weight	Probe (without cable): 280g (9.9 oz), Cable: 35 g m-1 (0.38 ozft-1)
Probe-to-Probe Variability	$\pm 0.5\%$ VWC in dry soil, $\pm 1.5\%$ VWC in typical saturated soil
Resolution	better than 0.1% volumetric water content
Water Content Accuracy	$\pm 2.5\%$ VWC using standard calibration with bulk electrical conductivity ≤ 0.5 deciSiemen meter-1 (dS m-1) and bulk density ≤ 1.55 g cm-3 in measurement range 0% VWC to 50% VWC
Precision	better than 0.1% volumetric water content
ORDERING	
CS625	Models differ regarding compability with specific dataloggers.
CS616	

Measures volumetric water content of porous media using time-domain methods sensitive to dielectric permittivity.

- ▶ The probe consists of two 30 cm long stainless steel rods connected to a printed circuit board, encapsulated in epoxy, and a shielded four-conductor cable connected to the circuit board to supply power and monitor output.
- ▶ Probe rods can be inserted from the surface or the probe can be buried at any orientation to the surface.
- ▶ Sensor supplied with Sutron's 6461-1285-1 frequency board to integrate with Sutron loggers
- ▶ High accuracy and high precision
- ▶ Fast response time
- ▶ Designed for long-term unattended water content monitoring
- ▶ Probe rods can be inserted from the surface or buried at any orientation to the surface