



CS616-LC

Water Content Reflectometer for ET or MetData1



Designed for Weather Stations

Overview

The CS616-LC is a version of the CS616 that has a cable terminated in a connector rather than the standard pigtailed. The connector can be attached to the ET107, ET106, or MetData1 weather stations.

The CS616-LC measures the volumetric water content from 0% to saturation. It uses time-domain measurement methods, but no reflectometer (cable tester) such as the TDR100 is required. The probe rods can be inserted from the surface or the probe can be buried at any orientation to the surface. It is rugged and designed for long-term, unattended use.

Benefits and Features

- › Compatible with most Campbell Scientific dataloggers
- › High accuracy and high precision
- › Fast response time
- › Fast, easy connection to weather stations

Detailed Description

The CS616-LC is a version of the CS616 that has a cable terminated in a connector that attaches to the ET107, ET106, or MetData1 weather stations.

The CS616-LC measures the volumetric water content from 0% to saturation. It uses time-domain measurement methods. The probe rods can be inserted from the surface or the probe can be buried at any orientation to the surface. It is rugged, and is designed for long-term, unattended use.

Specifications

Probe-to-Probe Variability	› ±1.5% VWC (in typical saturated soil) › ±0.5% VWC (in dry soil)	Output	±0.7 V square wave with frequency dependent on water content
		Precision	0.05% VWC

Accuracy	±2.5% VWC using standard calibration with bulk electrical conductivity of $\leq 0.5 \text{ dS m}^{-1}$, bulk density of $\leq 1.55 \text{ g cm}^{-3}$, and measurement range of 0 to 50% VWC
Current Drain	<ul style="list-style-type: none"> › 45 μA (quiescent typical) › 65 mA @ 12 Vdc (when enabled)
Power Supply Voltage	<ul style="list-style-type: none"> › 18 Vdc (maximum) › 5 Vdc (minimum)
Enable Voltage	<ul style="list-style-type: none"> › 18 Vdc (maximum) › 4 Vdc (minimum)

Resolution	0.1% VWC
Electromagnetic	<ul style="list-style-type: none"> › Meets EN61326 requirements for protection against electrostatic discharge. › CE compliant
Rod Spacing	32 mm (1.3 in.)
Rod Diameter	3.2 mm (0.13 in.)
Rod Length	300 mm (11.8 in.)
Probe Head Dimensions	85 x 63 x 18 mm (3.3 x 2.5 x 0.7 in.)
Weight	280 g (9.9 oz) without cable
Cable Weight	35 g per m (0.38 oz per ft)

For comprehensive details, visit: www.campbellsci.com/cs616-lc 



Campbell Scientific, Inc. | 815 W 1800 N | Logan, UT 84321-1784 | (435) 227-9120 | www.campbellsci.com
 AUSTRALIA | BRAZIL | CANADA | CHINA | COSTA RICA | FRANCE | GERMANY | THAILAND | SOUTH AFRICA | SPAIN | UK | USA

© 2019 Campbell Scientific, Inc. | 08/16/2019