Turfschipper 114 | 2292 JB Wateringen | Tel. 0174 272330 | Fax. 0174 272340 | info@catec.nl | www.catec.nl

MAS-1 4-20 MILLIAMP WATER CONTENT SENSOR

4-20 Milliamp Output, Ultra-Long Cable Lengths

The MAS-1 4-20 milliamp sensor is the first current-based sensor to use Decagon's trademark 70 MHz technology. This sensor offers a standard 4-20 milliamp output that is common with PLCs and irrigation controllers. With the 4-20 mA interface, cable lengths over 250 feet are possible.

Research Grade Accuracy

Like other Decagon soil moisture sensors, the MAS-1 measures soil moisture accurately without the sensitivity to electrical conductivity and variation in soil types that have plagued inexpensive sensors in the past.

The MAS-1 delivers research-grade accuracy at a price that makes large sensor networks economically practical. You can adequately characterize your site with sensors at multiple depths and locations, even if you're on a tight budget. And the MAS-1's ultra-long cable lengths give you even more flexibility to put your sensors where you want them.

Engineered for Accuracy

The MAS-1 determines volumetric water content (VWC) by measuring the dielectric constant of the media using capacitance/frequency domain technology. The sensor uses a 70 MHz frequency, which minimizes salinity and textural effects, making the MAS-1 accurate in almost any soil or soil-less media. Factory calibrations are included for mineral soils, potting soils, and rockwool.

Reasons to pick the MAS-1

- If you need a 4-20 milliamp sensor
- If you need cable lengths greater than 250 feet

ELECTRICAL	
Interface	Standard 4-20 mA analog transmitter
Supply Voltage	7-32 VDC continuous
Output Current	4 - 20 mA
Overvotage Protection	Yes
Settling Time	4 seconds
Wiring	Red Wire: (+) supply Black Wire: (-) output Shield: not connected
MEASUREMENT	
Type	Volumetric water content (VWC)
Range	0-100% VWC typical
Resoultion	Depends on current measurement (data aquistion) device
Accuracy	±4% VWC with factory calibration in a typical mineral soil ±1-2% VWC with medium-specific calibration in most porous medium
Output	4-20 mA current proportional to VWC
Sensor Measurement Interval	1 second
Operating Enivornment Temperature	-40 to 50°C
Physical Properties Dimensions	8.9 cm x 1.8 cm x 0.7 cm
Cable	2 m, 3 wire (22 AWG tinned Red and Black wire, 24 AWG tinned bare wire); (Custom cable length available upon request)