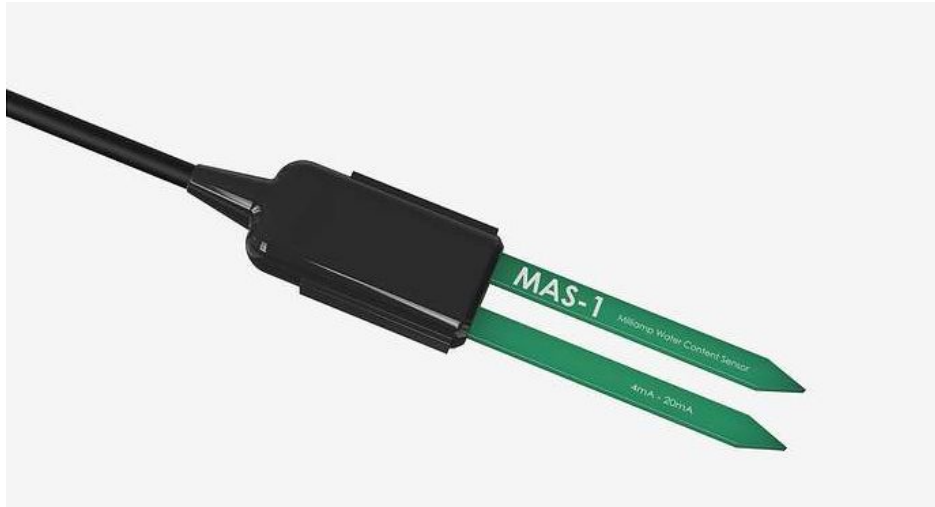




METER

MAS-1 4-20 mA SOIL MOISTURE SENSOR



Affordable current-based soil moisture sensor

MAS-1 4-20 milliamp soil moisture sensor is the first current-based sensor to use METER'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

MAS-1 soil moisture sensor 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 MAS-1 accurate in almost any soil or soil-less media. Factory calibrations are included for mineral soils, potting soils, and rockwool.

Low cost individual sensors for large sensor networks

MAS-1 delivers research-grade soil moisture accuracy that makes large sensor networks economically practical. You can adequately characterize your site with sensors at multiple depths and locations.

Specifications

Interface	Standard 4-20 mA analog transmitter Note: Temperature measurement may not be accurate if sensor is not fully immersed in the medium of interest, due to excessively long equilibration time.
Output current	4-20 mA
Settling time	4 seconds
Measurement interval	Maximum: 1 second
Range	0-100% VWC typical
Volume of influence	450 mL
Resolution	Depends on current measurement (data acquisition) device
Accuracy	±6% VWC with generic calibration for supported growing media up to 65% VWC, above which accuracy lessens. Increased accuracy can be achieved with a medium-specific calibration.
Output	4-20 mA current proportional to VWC
Dimensions	Length: 8.9 cm @ Width: 1.8 cm @ Height: 0.7 cm
Cable @ Connector	2 m or 5 m @ stripped and tinned wires
Operating temperature range	-40°C to 60°C



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