

250-40561 MAS-1 Soil Moisture Sensor

The **250-40561 MAS-1 Soil Moisture 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.

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.

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.

Specifications

Interface: standard 4-20 mA analog transmitter

Supply voltage: 12-32 Vdc continuous

Output current: 4-20 mA

Overvoltage protection: Yes

Settling time: 4 seconds

Wiring:

Red Wire: (+) supply

Black Wire: (-) output

Shield: not connected

Sensor Type: Volumetric Water Content (VWC)

Range: 0-100% VWC typical

Resolution: Depends on current measurement (data acquisition) device

Accuracy: $\pm 6\%$ 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

Sensor measurement interval: 1 second

Operating temperature: -40° to 60° C (Sensors can be used at higher temperatures under some conditions. Contact NovaLynx for more details.)

Dimensions: 8.9 cm x 1.8 cm x 0.7 cm

Cable: 2 m or 5 m, 3 wire (22 AWG tinned Red and Black wire, 24 AWG tinned bare wire); custom cable length available upon request.

Ordering Information

250-40561 MAS-1 Soil Moisture Sensor 4-20mA with 5m cable



240-40561 MAS-1 Soil Moisture Sensor