

MONITOR SENSORS

SM1

μSMART Soil Moisture Sensor

μSMART soil moisture sensor is designed to measure the moisture of the soil around the sensing element, a gypsum or calcium silicate block. Gypsum blocks have an expected life in service of 2 years providing the soil salinity is less than 1%. For more acid soils the calcium silicate block should be used. Calcium Silicate and Gypsum Block sensors exhibit characteristics that make them suitable for applications at different ends of the moisture scale. The SM1 Gypsum Block sensor uses an empirical calibration across 192 points to achieve a linear response.

The sensor ***Monibus*** interface allows the user to modify the sensor operation through the built-in sensor menus. The sensor incorporates a microprocessor to provide accurate, repeatable readings and to allow optional analogue outputs. The robust mechanical design ensures a long operational life.

- Mechanical**
- Powder Coated Aluminium body
 - Fully sealed
 - High durability cable

Specifications

Range: 0-1600 kPa
0.1 kPa wet 1 kPa dry

Operational: -20°C to +60°C

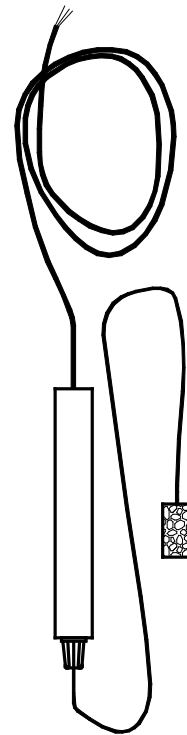
- Output options:**
- ***Monibus*** serial data ASCII format
 - Voltage 0-1, 0-2.5 volts
 - 4-20mA (requires >12Vdc supply)
 - Frequency TTL pulse 2-10 Hz

Power Supply: 6-28 Vdc unregulated
Supply current: 1.8 mA active
0.5 mA economy mode

Sensor weight: 250 grams
Dimensions: Overall height – 170 mm x 25 mm Ø
Mounting: 25 mm Ø
dwg no: MSM-06-0038

Cable Details: Block to sensor body: 2m, body to data logger plug: 5m.
other lengths may be ordered

Warranty: **12 months** – full details can be found in the Monitor Sensors standard warranty document



Order codes:

SM1	standard sensor	SM1-C	Hi/Low control
SM1-V1	0...1 volt output	SM1-CV1	Hi/Low control + 0...1 volt output
SM1-V2	0...2.5 volt output	SM1-CV2	Hi/Low control + 0...2.5 volt output
SM1-A4	4...20 mA output	SM1-CA4	Hi/Low control + 4...20 mA output
SM1-F	2 ... 10 Hz TTL		
SM1C...	SM1 sensor with calcium silicate block		

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