PROBE SMT50 TRUEBNER

truebner
true excellence in instrumentation

Precise measurement of soil water content.

Integrated temperature measurement

Any type of soil

Analog output voltage

Robust and reliable

Competitive price

DESCRIPTION

Designed and manufactured by TRUEBNER, the SMT50 is a low-cost FDR (Frequency reflectometry) soil moisture sensor.

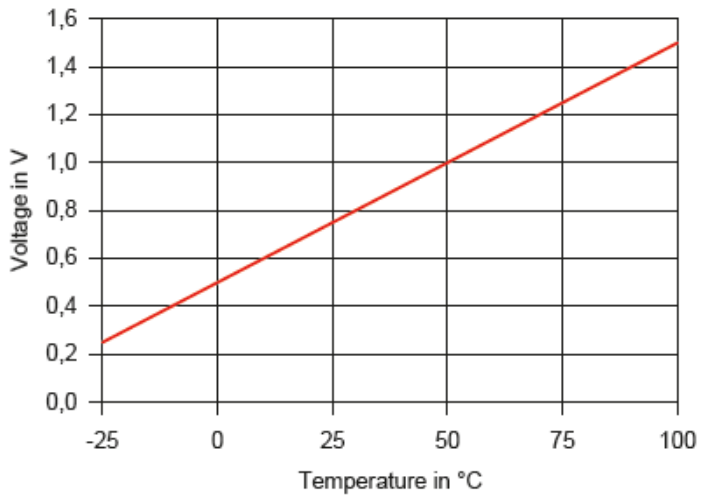
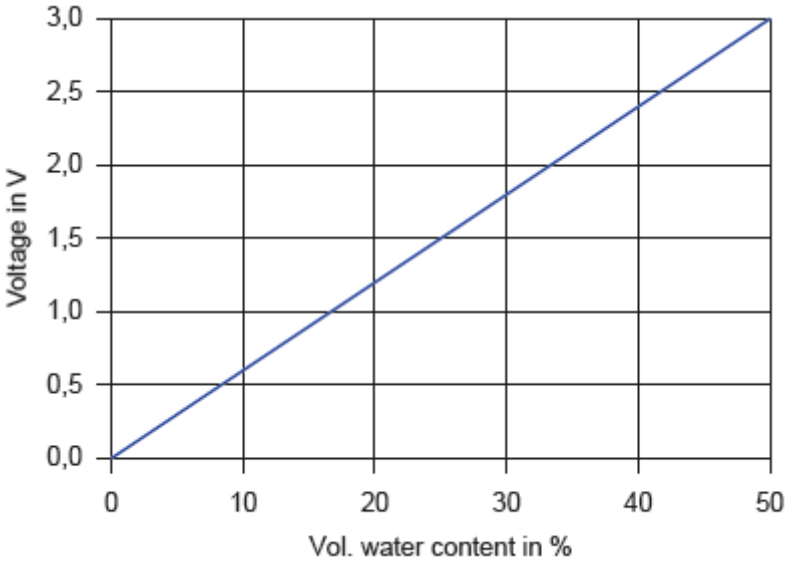
Compact, functional and robust : the PCB-based design allows for an economic design, and the blade shape facilities installation. The casing and cable are water sealed.

The SMT50 has broad measurement range. It's maintenance free and frost resistant. With short response times and low disturbances by salinity it's designed for a long-term observation.

CARACTERISTIQUES

PRECISION	SOIL VOLUMETRIC WATER CONTENT (VWC) Using factory calibration ± 3% in mineral soils with moderate salinity from 0 to 50% (VWC) Temperature : ± 0,8°C
RESOLUTION	Volumetric water content : 0,2% Temperature : 10mV / °C
OUTPUT SIGNAL	0 – 3V linear for 0 % to 50 % (volumetric water content) Temperature : 0,5V + temperature in °C (0,01V / °C) Startup time : 300ms Output resistance : 10KOhm
POWER SUPPLY	3,3V – 30 V DC, 2,7Ma
CABLE LENGTH	10 Meters
DIMENSIONS	13,5 cm x 2,15 cm
WIRING COLOR CODE	BROWN : + VBAT (Power supply). WHITE : GND (Ground). GREEN : Voltage output temperature. YELLOW : Voltage output soil moisture.

SPECIFICATIONS

CHARACTERISTIC CURVE TEMPERATURE	 Voltage to temperature conversion : Temperature in °C = (Voltage in V - 0.5 V) / (0.01 V) Example: Voltage = 1 V → Temperature = 50 °C
CHARACTERISTIC CURVE WATER CONTENT	 Voltage to water content conversion : Water content in % = (Voltage in V) / (3 V) x 50 Example : Voltage = 1.5 V → Water content = 25%